



**K. R. MANGALAM UNIVERSITY**

**THE COMPLETE WORLD OF EDUCATION**

**SCHOOL OF EDUCATION**

**(SOED)**



**Bachelor of Elementary Education**

**B.El.Ed.**

**Programme Code: 26**

**2022-26**

**Approved in the 29th Meeting of Academic Council Held  
on 09 August 2022**



Registrar

K.R. Mangalam University  
Sohna Road, Gurgaon, (Haryana)



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## Preface

K.R. Mangalam University is in process of transforming to National Educational Policy 2020. The Academic Council in consultation with Deans, Faculty Members, Industry Experts and University Alumni constituted department-wise committees to draft the model curriculum of B.El.Ed. programme as per the guidelines suggested by National Council for Teacher Education (NCTE)

The respective Head of Committees, Faculty members along with Industry Experts and Alumni discussed the existing system prevalent in various universities, industry requirements and employability, problem solving approach, need for lifelong learning, and after due deliberations, the scheme and syllabus of the B.El.Ed. has been formalized.

Salient features of this model curriculum are enumerated below:

1. Curriculum has been designed in such a way that it encourages innovation and research as total numbers of credits have been reduced and many new courses have been incorporated in consultation with industry experts.
2. The revised curriculum has been designed where the students can understand the industry requirements and have hands-on experience. The students will develop a problem-solving approach and will meet the challenges of future.
3. Emerging areas in teacher education have been included.
4. Emphasis on hands-on training and experimental learning has been promoted by including School Internship in various renowned schools.
5. School of Education will ensure the revision of the curriculum to help students to achieve better employability, start-ups, and other avenues for higher studies.

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## **1. INTRODUCTION**

The K.R. Mangalam Group has made a name for itself in the field of education. Over a period of time, the various educational entities of the group have converged into a fully functional corporate academy. Resources at KRM have been continuously upgraded to optimize opportunities for the students. Our students are groomed in a truly inter-disciplinary environment wherein they develop integrative skills through interaction with students from engineering, education, journalism, management, media and other study streams.

The K.R. Mangalam story goes back to the chain of schools that offered an alternative option of world-class education, pitching itself against the established elite schools, which had enjoyed a position of monopoly till then. Having blazed a new trail in school education, the focus of the group was aimed at higher education. With the mushrooming of institutions of Higher Education in the National Capital Region, the university considered it very important that students take informed decisions and pursue career objectives in an institution, where the concept of education has evolved as a natural process.

K.R. Mangalam University was founded in the year 2013 by Mangalam Edu Gate, a company incorporated under Section 25 of the Companies Act, 1956.

### **Vision**

The University was developed with a vision to develop it as a world class University and to deliver a substantial innovation and international impact through creation and dissemination of knowledge.

### **Mission**

- Transforming lives through knowledge, collaboration and partnership.
- Undertaking world class research of high impact on society
- Creating niche of innovation, entrepreneurship and creativity.
- Nurturing and rewarding skills and talent.
- Pursuing excellence in education.

### **K. R. Mangalam University is unique because of its**

1. Enduring legacy of providing education to high achievers who demonstrate leadership in diverse fields.
2. Protective and nurturing environment for teaching, research, creativity, scholarship, social and economic justice.

## **2. OBJECTIVES**

1. Enhance leadership qualities among the youth having understanding of ethical values and environmental realities.
2. Foster employability and entrepreneurship through futuristic curriculum and progressive pedagogy with cutting-edge technology.
3. Instill notion of lifelong learning through stimulating research, outcomes-based education and innovative thinking.
4. Integrate global needs and expectations through collaborative programs with premier universities, research centers, industries and professional bodies.

## **3. ABOUT THE SCHOOL OF EDUCATION (SOED)**

### **3.1 School of Education**

Since 2016 the School of Education strives to foster and maintain a creative environment with a deep commitment to inculcate excellence in academics and contribute towards students' development. The school brings an attitudinal change in prospective teachers for their advancement into accountable agents of change in the society, who are sensitive to local, national, and global concerns and issues vital for human survival, progress, and development. The School of Education offers diverse programs of studies that are designed to develop an insight into the nuances of teaching and learning in terms of theoretical perspectives, pedagogical techniques that facilitates the students' understanding of social, emotional, and intellectual ecosystem.

#### **3.1.1. School Vision**

The School of Education aspires to become an internationally recognized department through excellence in interdisciplinary arena of education, research and innovation, preparing socially responsible life-long learners contributing to nation building.

#### **3.1.2. School Mission**

- Create socially concerned, spiritually oriented and law-abiding teachers with right attitudes and values.
- Establish the students to lead the dynamic school with the integration of theoretical and practical approach of leadership and administrative tasks.

- Make students succeed in a rapid changing society with the understanding of the challenges of the sustainability issues.
- Prepare competent, committed, and creative professionals by engaging them in innovative teaching and empirical research activities.

#### **4. Introduction to the Program – Bachelor of Elementary Education (B.El.Ed.)**

This Programme aims at rendering the social function of a school teacher in the context of achieving Universalization of Elementary Education besides focusing on developing a deep and critical understanding of the curriculum and pedagogy in teachers, who are believed to perform a transformative role in school education. Both professional and academic options are available to the students who graduate with a B.El.Ed. Degree.

##### **4.1.Nature of the Program – Bachelor of Elementary Education (B.El.Ed.)**

The Bachelor of Elementary Education (B.El.Ed.) Programme is a four-year integrated professional degree Programme of Elementary Teacher Education offered after the senior secondary stage of school and aims to produce graduates of high calibre in the field of elementary teacher education. It consists of interdisciplinary teaching where students get an opportunity to learn diverse disciplines of education, psychology, sociology, linguistics, social sciences, biological and natural science, mathematical sciences and languages.

##### **4.2.Aims of the Programme – Bachelor of Elementary Education**

The B.El.Ed. Program aims at administering the social function of a school-teacher in the context of achieving Universalisation of Elementary Education besides focusing on developing a deep and critical understanding of the curriculum and pedagogy in teachers, who believe in performing a transformative role in school education.

#### **5. Graduate Attributes in the Program**

Some of the characteristic attributes of a graduate in Elementary Education may include the following:

**GA 1: Multidisciplinary Knowledge:** Capable of demonstrating comprehensive knowledge and understanding of various disciplines of the programme.

**GA 2: Communication Skills:** Capable of communicating ideas, share views and express feelings by using language skills which will help in preparing and demonstrating lesson plans.

**GA 3: Critical Thinking:** Capable to evaluate practices, policies and theories critically.

**GA 4: Analytical Reasoning:** Capable to evaluate the reliability and relevance of evidence, identify logical flaws, analyze and synthesize data from a variety of sources, draw conclusions and support them with evidence and examples.

**GA 5 Research Related Skills:** Capable of initiating research by defining problems, formulating and testing hypotheses, interpreting and drawing conclusion from the data.

**GA 6 Team Work:** Capable to work effectively in groups and act together in unity by showing accountability and ability as a team member.

**GA 7 Leadership Qualities:** Capable for mapping out the tasks of a team or an organization, formulating an inspiring vision, setting up direction, building a team who can help achieve the vision by motivating and inspiring team members to engage with that vision, and using management skills to guide people to the right destination, in a smooth and efficient way.

**GA 8 Digital Literacy:** Capable to use ICT in a variety of learning situations, demonstrate ability to access, evaluate, and use a variety of relevant information sources and use appropriate software for achieving learning outcomes.

**GA 9 Lifelong Learning:** Capable to acquire knowledge and skills, including “*learning how to learn*” which are necessary for participating in learning activities throughout life, with self-paced and self-directed learning outlook aimed at personal development, meeting economic, social and cultural objectives and adapting changing trades and demands of work place through knowledge/skill development.

**GA 10 Moral and Ethical Values:** Capable to embrace moral/ethical values in conducting one’s life, formulate a position/argument on ethical issues from multiple perspectives, and adapting moral practices in various work dimensions.

## **6. Qualification Descriptors for a Bachelor’s Degree Programme in Elementary Education**

The students who complete four years of full-time study in an undergraduate programme



of study will be awarded a bachelor's degree. Some of the expected learning outcomes that a student should be able to demonstrate on completion of a degree programme may include the following:

- Foster employability, entrepreneurship and industry ready through a futuristic curriculum and progressive pedagogy with cutting-edge technology.
- Integrate global needs and expectations through collaborative programs with premier universities, research centers, industries, and professional bodies.
- Prepare competent, committed, and creative professionals by engaging them in innovative teaching and research activities.
- Instil the notion of lifelong learning through stimulating research and outcome-based education.
- Making socially concerned, spiritually oriented, and law-abiding teachers with the right attitudes and values.
- The primary focus is to prepare students to succeed in a rapidly changing society with an understanding of the challenges of sustainability issues.

### **6.1. Academic Standards for the Qualification of Bachelors in Elementary Education**

The Programme includes Foundation, Core, Pedagogy and Liberal courses. Foundation Course is an in-depth study of the process of child development and learning. Core Course is an opportunity to reconstruct School concepts and integrate them within a multi-disciplinary perspective. The Pedagogy Course helps to develop skills specific to the teaching of young children where Liberal Course is knowledge based. There are specialized practicum courses such as Academic Enrichment Activities, Art in Education, Class Management Skills, Material Development, Research Project, Self- Development Workshops, Storytelling and Children's Literature, Theatre, etc. which will further be nurtured with School Contact Programme, Industry Community Connect, and Mentor-Mentee sessions.

### **6.2. Career Avenues**

K.R. Mangalam University believes in shaping a bright future for its students--that is why it offers only the best of the placement opportunities available in the market. Students of KRMU have secured handsome salary packages through college placements. The university also provides career counseling services to students who are confused about their

careers. Additionally, it encourages its students to build a strong professional network so that they can work in their dream jobs when they want to. The top recruiters that are a part of our placement drive are as follows:

- Kendriya Vidhyalayas
- Navy Children School
- DAV Schools
- Coaching Institutes
- Chegg
- K.R. Mangalam Schools
- Sarvoday Vidhyalaya
- WhiteHat Junior
- Navodaya

Students will be eligible to teach in government as well as private schools/institutions. Exceptional educational practitioners can be appointed as Principal, Head Teacher, and Educational Consultant. Students can also explore the field of development sector/ CSRs. Students have an opportunity to join Higher Education Programmes such as M.Ed./M.Phil./Ph.D.

### **6.3. Eligibility Criteria**

1. The candidate should have passed the 10+2 examination conducted by Central Board of Secondary Education or Equivalent examination from a recognized Board with minimum of 50% marks in aggregate.
2. The reservation and relaxation for SC/ST/OBC/PWD and other categories shall be as per the rules of the Central Government/ State Government, whichever is applicable.

### **6.4. Class Timings**

The class will be held from Monday to Friday from 9.10 A.M. to 4.30 P.M.

### **6.5. Programme Duration**

The Programme duration of B.El.Ed. is:

Name of the Programme	Duration
Bachelor of Elementary Education (B.El.Ed.)	4 Years (8 Semester)

The reservation and relaxation for SC/ST/OBC/PWD and other categories shall be as per the rules of the Central Government/ State Government, whichever is applicable.

### **7.1 Programme Educational Objectives (PEO)**

PEO 1: To prepare competent and effective teachers who have a strong foundation in their respective subjects and can use a variety of teaching strategies to engage and motivate students.

PEO 2: To develop in student-teachers an understanding of the principles of pedagogy and educational psychology, and how to apply them in classroom settings.

PEO 3: To equip student-teachers with the knowledge and skills needed to create a positive and inclusive learning environment, and to effectively manage classroom behaviour.

PEO 4: To instil in student-teachers a commitment to professional ethics and values, and to prepare them to be responsible and ethical educators.

PEO 5: To encourage student-teachers to engage in lifelong learning and professional development, and to prepare them to be reflective practitioners who can continuously improve their teaching practice.

PEO 6: To prepare student-teachers to use technology effectively in teaching and learning, and to be able to integrate technology into their classroom practices.

PEO 7: To foster in student-teachers an appreciation for diversity and multiculturalism, and to prepare them to be able to teach students from diverse backgrounds.

PEO 8: To prepare student-teachers to be effective collaborators and communicators who can work with colleagues, parents, and other stakeholders to promote student learning and development.

### **7.2 Programme Outcomes (POs)/ Programme Learning Outcomes (PLOs)**

**PO 1 Teaching Competencies:** Describe teaching learning process in the classroom and various factors that influence and provide necessary competencies for organizing learning experiences, select and use of appropriate assessment strategies for facilitating learning.

**PO 2 Effective Communication:** Practice communication skills through various linguistic activities and applying it for better classroom communication.

**PO 3 Critical Thinking:** Analyze curriculum, selecting appropriate teaching methods, approaches and strategies and implement in teaching learning.

**PO 4 Ethics:** Understand values, mortality, community service and responsibility towards the society.

**PO 5 Life-long Learning:** to identify the challenging and overcoming gender inequalities in school, classroom, curricula, textbook, social institutions, etc.

**PO 6 Sensitive towards Inclusion:** Create sensitivity about language diversity in classroom and its role in teaching learning process.

**PO 7 Self Development and Community Attachment:** Engage student-teachers with self, child, community, and school to establish close connections between different curricular areas.

**PO 8 Technology Skills:** to enable student-teachers to integrate and apply ICT in facilitating teaching-learning process and in school management.

**PO 9 Professional Competencies:** Systematize experiences and strengthening the professional competencies of student teachers.

**PO 10 General and Specific Need & Problems:** to understand various level learners, their needs, and interest and peculiar problems and motivate them for learning.

**PO 11 Pedagogical Content Analysis:** to conduct pedagogical content analysis in subject areas and use it for facilitating learning in the classroom.

### **7.3 Programme Specific Outcomes (PSO)**

**PSO 1 Developmental Tasks:** Enable to understand the developmental task of different age groups, providing hands on experiences to interact with children, developing understanding about individual differences among children in the class and organize teaching learning process accordingly, to comprehend teaching competencies and skills through various teaching pedagogies and internship and facilitating the learners to become friendly user of ICT.

**PSO 2 Diverse Needs:** To enable the pupil teachers to comprehend and use formal and informal assessment strategies to evaluate and ensure the continuous intellectual social, emotional, mental and physical development of the learners, developing sensitivity towards language diversity and inclusion in the classroom and its role in teaching- learning process and to promote students physical, mental and emotional well-being.

**PSO 3 Research and Entrepreneurial Skills:** Enable to understand different research methods, conducting research work, prepare research papers and develop entrepreneurial skills.

### **7. Teaching Learning Process**

The School of Education brings an attitudinal change among prospective teachers for their advancement into accountable agents of change in the society. They are actively engaged in undertaking different activities such as school contact programs in various schools during their programme with systematic support and feedback from the faculty. During this program, the student-teachers observe the school/classroom environments concerning infrastructure, equipment, teaching-learning materials, functioning, human resources, and organization of various activities. Such practices bring experiential learning by emphasizing reciprocal learning and reflection. The faculties foster and maintain a creative environment with a deep commitment to inculcate excellence in academics and contribute to student development.

***Programme Scheme: - For B.El.Ed. Programme Scheme is attached in Annexure.***

### **8. Class Timings**

The class will be held from Monday to Friday from 9.10 A.M. to 4.10 P.M.

### **9. Programme Duration**

The Programme duration of B.El.Ed. is:

<b>Name of the Programme</b>	<b>Duration</b>
<b>Bachelor of Elementary Education (B.El.Ed.)</b>	<b>4 Years</b>

## 10. Syllabi

The syllabi of the programme offered by School of Education (SOED) are given in the following pages:

### FOUR YEAR B.El.Ed. PROGRAMME AT A GLANCE

	Sem I	Sem II	Sem III	Sem IV	Sem V	Sem VI	Sem VII	SemVIII	Total
<b>Course</b>	7	6	6	8	8	6	2	7	<b>50</b>
<b>Credits</b>	26	22	18	24	22	20	19	18	<b>169</b>

**Scheme of Studies B.El.Ed. as per Choice Based Credit System (CBCS) and Learning Outcome Based Framework (LOCF)**

<b>Scheme of Studies B.El.Ed. Batch 2022-26 as per Choice Based Credit System (CBCS) and Learning Outcome Based Framework (LOCF)</b>																
	<b>Odd Semester</b>							<b>Even Semester</b>								
	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>	<b>Course Type</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>
<b>FIRST</b>	1	SEE D101 A	Basic Concepts and Thoughts in Education	Theory	4	0	0	4	1	SEE D102 A	Child Development	Theory	4	0	0	4
	2	SEE D103 A	Nature of Language I	Theory	4	0	0	4	2	SEE D104 A	Nature of Language II	Theory	4	0	0	4
	3	SEE D105 A	Core Mathematics I	Theory	4	0	0	4	3	SEE D106 A	Core Mathematics II	Theory	4	0	0	4
	4	SEE D107 A	Core Natural Sciences I	Theory	4	0	0	4	4	SEE D108 A	Core Natural Sciences II	Theory	4	0	0	4
	5	SEE D109 A	Core Social Sciences I	Theory	4	0	0	4	5	SEE D110 A	Core Social Sciences II	Theory	4	0	0	4
	6	<b>Open Elective</b>		Theory	4	0	0	4	6	SEE D112 A	School Exposure II	Practical	0	0	4	2
	7	SEE D111 A	School Exposure I	Practical	0	0	4	2								
			<b>Total</b>					<b>26</b>			<b>Total</b>					<b>22</b>
<b>SECOND</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>					<b>Credits</b>
	1	SEE D213 A	Cognition and Learning	Theory	4	0	0	4	1	SEE D214 A	Communication in Teaching-Learning Process	Theory	4	0	0	4
	2	SEE D215 A	Language Acquisition	Theory	4	0	0	4	2	SEE D216 A	Logico-Mathematics Education	Theory	4	0	0	4
	3	SEE D217 A	Observing Children	Practical	0	0	0	2	3	SEE D218 A	Arts in Education	Theory	0	0	4	2
	4	SEE D219 A	Self-Development Workshop	Practical	0	0	4	2	4	SEE D220 A	Yoga Education	Practical	0	0	4	2
	5	SEE D221 A	Service Learning	Practical	0	0	4	2	5	SEE D222 A	Understanding the Self	Practical	0	0	4	2
								6	SEE D224 A	School Attachment	Practical	0	0	4	2	

										Programme and Community Living						
6	<b>*Liberal Course (Optional I)</b>							<b>*Liberal Course (Optional II)</b>								
	SEE D223 A	English I	Theory	4	0	0	4	7	SEE D226 A	English II	Theory	4	0	0	4	
	SEE D225 A	Hindi I	Theory						SEE D228 A	Hindi II	Theory					
	SEE D227 A	Chinese I	Theory						SEE D230 A	Chinese II	Theory					
	SEE D229 A	Mathematics I	Theory						SEE D232 A	Mathematics II	Theory					
	SEE D231 A	Physics I	Theory						SEE D234 A	Physics II	Theory					
	SEE D233 A	Chemistry I	Theory						SEE D236 A	Chemistry II	Theory					
	SEE D235 A	Biology I	Theory						SEE D238 A	Biology II	Theory					
	SEE D237 A	History I	Theory						SEE D240 A	History II	Theory					
	SEE D239 A	Political Science I	Theory						SEE D242 A	Political Science II	Theory					
	SEE D241 A	Geography I	Theory						SEE D244 A	Geography II	Theory					
	SEE D243 A	Economics I	Theory						SEE D246 A	Economics II	Theory					
								8	SEE D542 A	Disaster Management	Theory	4	0	0	4	
	<b>Total</b>						<b>18</b>		<b>Total</b>						<b>24</b>	
<b>THIRD</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>				<b>Credits</b>	
	1	SEE D377 A	Childhood and Growing Up	Theory	4	0	0	4								
	2	SEE D345 A	Language Across the Curriculum	Theory	4	0	0	4	1	SEE D348 A	Contemporary India and Education	Theory	4	0	0	4
	3	SEE D347 A	Total Quality Management in Education	Theory	4	0	0	4	2	SEE D350 A	Pedagogy of Environmental Studies	Theory	4	0	0	4



4	SEE D349 A	Story Telling and Children's Literature	Theory	4	0	0	2	<b>Optional Course -Student will opt any one of Pedagogy subject</b>								
5	SEE D351 A	Academic Enrichment Activities	Practical	0	0	4	2									
6	SEE D353 A	School Engagement I	Practical	0	0	4	2									
								3	SEE D352 A	Pedagogy of Language	Theory	4	0	0	4	
<b>*Liberal Course (Optional III)</b>									SEE D354 A	Pedagogy of Mathematics	Theory	4	0	0		
7	SEE D355 A	English III	Theory	4	0	0	4		SEE D356 A	Pedagogy of Natural Science	Theory	4	0	0		
	SEE D357 A	Hindi III	Theory						SEE D358 A	Pedagogy of Social Science	Theory	4	0	0		
	SEE D359 A	Chinese III	Theory					4	SEE D360 A	Developing Instructional Aids	Practical	0	0	4	2	
	SEE D361 A	Mathematics III	Theory					5	SEE D362 A	School Engagement II	Practical	0	0	4	2	
	SEE D363 A	Physics III	Theory					<b>*Liberal Course (Optional IV)</b>								
	SEE D365 A	Chemistry III	Theory					6	SEE D364 A	English IV	Theory	4	0	0	4	
	SEE D367 A	Biology III	Theory						SEE D366 A	Hindi IV	Theory					
	SEE D369 A	History III	Theory						SEE D368 A	Chinese IV	Theory					
	SEE D371 A	Political Science III	Theory						SEE D370 A	Mathematics IV	Theory					
	SEE D373 A	Geography III	Theory						SEE D372 A	Physics IV	Theory					
	SEE D375 A	Economics III	Theory						SEE D374 A	Chemistry IV	Theory					
8	<b>VAC</b>		Theory	3	0	0	0		SEE D376 A	Biology IV	Theory					
	<b>Total</b>						<b>22</b>		SEE D378 A	History IV	Theory					
									SEE D380 A	Political Science IV	Theory					

									SEE D382 A	Geography IV	Theory					
									SEE D384 A	Economics IV	Theory					
										<b>Total</b>						<b>20</b>
<b>FOURTH</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>					<b>Credits</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>					<b>Credits</b>
	1	SEE D477 A	Research Project I (Case Study)	Practical	0	0	0	2	1	SEE D486 A	Gender and Schooling	Theory	4	0	0	4
	2	SEE D479 A	School Internship	Practical	0	0	0	17	2	SEE D488 A	Inclusive Education	Theory	4	0	0	4
									3	SEE D490 A	Environmental Education	Theory	4	0	0	4
									4	SEE D492 A	Research Project II (Educational Issue)	Practical	0	0	4	2
									5	SEE D494 A	Resource Center Development	Practical	0	0	4	2
									6	SEE D496 A	Understanding ICT and Its Application	Practical	0	0	4	2
									7	<b>VAC (GTP)</b>		Theory	3	0	0	0
		<b>Total</b>					<b>19</b>	<b>Total</b>								<b>18</b>
										<b>Total Credits</b>	<b>169</b>					

## SEMESTER I

<b>SEED101A</b>	<b>BASIC CONCEPTS AND THOUGHTS IN EDUCATION</b>	IN	L	T	P	C
<b>Version 2.0</b>		4		0	0	4
<b>Pre-requisites/Exposure</b>	Concepts and dimensions of education					
<b>Co-requisites</b>	--					

### Course Objectives

The student-teacher will be able to:

- Exhibit reflective thinking with relation to the philosophical and sociological perspectives of Education.
- Sharpen their perception of the concepts involved in educational practice.
- Enhance their capacity to formulate responses to the reality of education.
- Critically evaluate and systematically reflect upon general theories of Education.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Understand the philosophy, education and the relationship between philosophy and education and its role in teaching-learning process.

**CO2** Understand the ideas of equity, equality, inclusion culture and economy.

**CO3** Analyze the determinants of aims of education, socialization and the role of various agencies.

**CO4** Understand the ideas of major thinkers on education and its role in professional development of teachers.

### Catalog Description

One of the Basic premises underlying the concept of Education is the philosophical and sociological thought. Philosophy of Education is essentially a method of approaching educational experience rather than a body of conclusions. This course will endeavor to develop a basic understanding of philosophical process of solving educational problems through philosophical method, from a philosophical attitude to arrive at philosophical conclusions and results. It will facilitate the understanding of the following: Interpretation of

human nature, the world and the universe and their relation with man and society. Interpretation of aims and ideals of education, the relationship of various components of the system of education, relationship of education and various areas of national life (economic system, political order, social progress, social and cultural reconstructions etc.), educational values, theory of knowledge and its relationship to education.

## Course Content

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### Unit I:

15 Contact Hours

#### Basic Concepts in Philosophy of Education

- Teaching, training, learning and education in relationship to the child's nature, growth and development.
- Relationship between Philosophy and Education. Branches of Philosophy: Metaphysics, Epistemology & Axiology with special reference to school subjects.
- Western philosophies: Idealism, Naturalism, Realism, and Pragmatism.
- Philosophical basis of pedagogical techniques with reference to Activity, Discovery and Dialogue based teaching-learning.
  1. **Activity:** With reference to Dewey's ideas on learning and Gandhi's NaiTalim
  2. **Discovery:** With reference to Montessori's description of children's intellectual growth and Dewey's concept of inquiry
  3. **Dialogue:** With reference to Plato (Allegory of the Cave), kathopanishad's dialogue between Yama, the God of Death and Nachiketa, the young boy and Buber's idea of a dialogue between seeker and the master ('I and Thou') along with a discussion on the role of a teacher

### Unit II:

15 Contact Hours

#### Basic Concepts in the Sociology of Education

- State and Democracy
- Constitutional Perspective: Equity, Equality, Freedom, Social Justice, Inclusiveness and Secularism.
- Socialization, Role of family and school, conflicts and coherence.
- Political ideology with reference to curriculum and textbooks.

- Determinants of aims of Education: culture, economy, and history
- Dominance, conflict and resistance in the context of schooling.

### **Unit III:**

**15 Contact Hours**

**Introduction to the main ideas of the following thinkers concerning Aims of Education, School Curriculum, Pedagogical Practices, Role of Teachers and Discipline**

- John Dewey
- M.K. Gandhi
- Rabindranath Tagore
- Paulo Freire
- J. Krishnamurti.

### **Unit IV:**

**6 Contact Hours**

#### **Practicum**

A detailed study of one of the thinkers mentioned in the entire syllabus

#### **Suggested Text Books**

1. Aggarwal, J. C. (2001). *Basic ideas of education*. Shipra Publications.
2. Aggarwal, J. C. (2009). *Psychological, Philosophical and Sociological Foundations of Education*. Shipra Publications.

#### **Advanced Readings**

1. Buber, Martin (2006). 'Teaching and Learning' in the Writings of Martin Buber. Author: Will Herberg. Universal Digital Library. The World Publishing Company, New York.
2. Dewey, John (1902). *The Child and the Curriculum*. Chicago: The University of Chicago Press.
3. Krishnamurti, Jiddu (1992). *Education and the Significance of Life*. India: Krishnamurti Foundation India.
4. Wozzley, A.D. (1949). *Theory of Knowledge: An Introduction*. London: Hutchinson's University Library.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the philosophy, education and the relationship between philosophy and education and its role in teaching-learning process.	PO1
CO2	Understand the ideas of equity, equality, inclusion culture and economy.	PO6
CO3	Analyze the determinants of aims of education, socialization and the role of various agencies.	PO7
CO4	Understand the ideas of major thinkers on education and its role in professional development of teachers.	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Disabilities	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEE D 101A	Basic Concepts and Thoughts in Education	2			3	3	3	2					3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S	
	1	2	3	4	5	6	7	8	9	10	11	O	O	O	
C		3											1	2	3
O			3												
1						3									
2															
3	3														
4															
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															
Unit I		Basic Concepts in Philosophy of Education													

Local	Teaching, training, learning and education in relationship to the child's nature, growth and development
Regional	
National	Philosophical basis of pedagogical techniques with reference to Activity, Discovery and Dialogue based teaching-learning
Global	Western philosophies: Idealism, Naturalism, Realism, and Pragmatism
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	<b>Dialogue:</b> With reference to Plato (Allegory of the Cave), kathopanishad's dialogue between Yama, the God of Death and Nachiketa, the young boy and Buber's idea of a dialogue between seeker and the master ('I and Thou') along with a discussion on the role of a teacher
Gender	
Human Values	Relationship between Philosophy and Education. Branches of Philosophy: Axiology with special reference to school subjects
Environment & Sustainability	
<b>Unit II</b>	<b>Basic Concepts in the Sociology of Education</b>
Local	Socialization, Role of family and school, conflicts and coherence
Regional	Determinants of aims of Education: culture, economy, and history
National	Determinants of aims of Education: culture, economy, and history, State and Democracy
Global	Constitutional Perspective: Equity, Equality, Freedom, Social Justice, Inclusiveness and Secularism.
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	Constitutional Perspective: Equity, Equality, Freedom, Social Justice, Inclusiveness and Secularism.



Gender	Socialization, Role of family and school
Human Values	Constitutional Perspective: Equity, Equality, Freedom, Social Justice, Inclusiveness and Secularism.
Environment & Sustainability	
<b>UNIT III</b>	<b>Introduction to the main ideas of the following thinkers concerning Aims of Education, School Curriculum, Pedagogical Practices, Role of Teachers and Discipline</b>
Local	<ul style="list-style-type: none"> <li>• M.K. Gandhi,</li> <li>• Rabindranath Tagore</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• M.K. Gandhi, Basic Scheme of Education</li> <li>• Rabindranath Tagore</li> </ul>
National	<ul style="list-style-type: none"> <li>• J. Krishnamurti</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Paulo Freire</li> </ul>
Employability	
Entrepreneurship	<ul style="list-style-type: none"> <li>• Vocationalization, Craft Based Education</li> </ul>
Skill Development	<ul style="list-style-type: none"> <li>• John Dewey, Activity Based Learning</li> </ul>
Professional Ethics	
Gender	
Human Values	<ul style="list-style-type: none"> <li>• M.K. Gandhi</li> <li>• Rabindranath Tagore</li> </ul>
Environment & Sustainability	
<b>Unit IV</b>	<b>Practicum (Any two)</b>
Local	M.K. Gandhi, Basic Scheme of Education
Regional	
National	Broad Based Education
Global	
Employability	Vocationalization, Craft Based Education
Entrepreneurship	Spinning, Weaving, Gardening through Basic Scheme of education

Skill Development	Spinning, Weaving, Gardening through Basic Scheme of education
Professional Ethics	
Gender	
Human Values	Universal Understanding
Environment & Sustainability	
SDG	Goal 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
NEP 2020	3. Curtailing Dropout Rates and Ensuring Universal Access to Education at All Levels, 4. Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging
POE/4 <sup>th</sup> IR	

<b>SEED103A</b>	<b>NATURE OF LANGUAGE-I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Aspects of Language				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teacher will be able to:

- Gain an understanding of the essential elements of linguistics.
- Become conversant with both theoretical and pragmatic approaches.
- Apply the principles of linguistic theory.
- Have knowledge and understanding of how a language works and how we communicate.

- Develop a solid foundation for a wide range of careers.

### **Course Outcomes**

On completion of this course, the student-teacher will be able to:

**CO1:** Interpret the various branches of linguistics.

**CO2:** Analyze the design features language in comparison to human and animal communication of language.

**CO3:** Discover various kinds of language disorders.

**CO4 :** Identify various concepts of language in respect of Indian classroom.

### **Catalogue Description**

This course gives an insight into the nature of languages with reference to the linguistics terminologies. It offers an introduction to linguistics and the study of language, and assumes no previous knowledge of the subject. It aims to provide a historical perspective on the development of linguistic theory, and explores current ideas in many of the areas which make up the discipline - i.e. Phonology, Morphology, Lexical Semantics and Syntax.

### **Course Content**

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#### **Unit I:**

**15 Contact Hours**

#### **Introduction to Language and Linguistics**

- Definition
- Scope and Significance
- Verbal and Non Verbal
- Human and Animal System of Communication
- Design features of Language
- Form and Function
- Structural and Functional notions of language

#### **Unit II**

**15 Contact Hours**

#### **Linguistics & its Branches**

- Definition
- Linguistic hierarchy of language
  - Phonology

- Morphology
- Syntax
- Semantics
- Pragmatics
- Etymology
- Semiology
- Word formation
- Sentence Synthesis

**Unit III:**

**10 Contact Hours**

**Language, Mind and Brain**

- Biological Foundations of Language
- Language and Thought
- Language Production and Processing
- Lateralization and Localization
- Language and Speech Disorders

**Unit IV:**

**15 Contact Hours**

**Language and Society**

- Relationship between language and society - Identity, power and discrimination
- Standard and Non-Standard Varieties of Language -Pidgins and Creoles
- Language and Dialect
- Multilingualism- Differential status of Indian Classroom Language

**Suggested Text Books**

1. Yule, G. (2006). *The Study of Language*. Cambridge, UK: Cambridge University Press

**Advanced Readings**

1. Akmajian, A., R. A. Demers and R. M. Harnish (1974). *Linguistics: An Introduction to Language and Communication*, 2nd ed. *New York: Holt, Rinehart and Winston*.
2. De Saussure, Ferdinand (1966). *Course in general linguistics*. *New York: McGraw Hill Introduction: Chapter 3*.
3. Fromkin, V., Rodman, R., & Hyams, N. M. (2007). *An Introduction to Language*. *Boston, MA: Thomson Wadsworth*

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Interpret the various branches of linguistics.	PO2
CO2	Analyze the design features language in comparison to human and animal communication of language.	PO3
CO3	Discover various kinds of language disorders.	PO6
CO4	Identify various concepts of language in respect of Indian classroom	PO1

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self -Development and Community Attachment</b>	<b>S Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental Tasks</b>	<b>Diverse Needs:</b>	<b>Research and Entrepreneurial Skills:</b>
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEED103A	Nature of Language I	3	3	3			3							3	

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1		3												3
C O 2			3											
C O 3						3								
C O 4	3													
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Introduction to Language and Linguistics
Local	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Scope and Significance</li> <li>• Verbal and Non-Verbal</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Design features of Language</li> </ul>
National	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Scope and Significance</li> <li>• Verbal and Non-Verbal</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Human and Animal System of Communication</li> <li>• Design features of Language</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Form and Function</li> <li>• Structural and Functional notions of language</li> </ul>
Entrepreneurship	-
Skill Development	<ul style="list-style-type: none"> <li>• Human and Animal System of Communication</li> <li>• Design features of Language</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Scope and Significance</li> <li>• Verbal and Non-Verbal</li> </ul>
Gender	-

Human Values	<ul style="list-style-type: none"> <li>• Human and Animal System of Communication</li> </ul>
Environment & Sustainability	-
<b>Unit II</b>	<b>Linguistics &amp; its Branches</b>
Local	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Linguistic hierarchy of language</li> <li>• Phonology</li> <li>• Morphology <ul style="list-style-type: none"> <li>- Syntax</li> <li>- Semantics</li> <li>- Pragmatics</li> <li>- Etymology</li> <li>- Semiology</li> </ul> </li> </ul>
Regional	Linguistic hierarchy of language
National	Linguistic hierarchy of language
Global	Linguistic hierarchy of language
Employability	<ul style="list-style-type: none"> <li>• Definition</li> <li>• Linguistic hierarchy of language</li> <li>• Phonology</li> <li>• Morphology <ul style="list-style-type: none"> <li>- Syntax</li> <li>- Semantics</li> <li>- Pragmatics</li> <li>- Etymology</li> <li>- Semiology</li> </ul> </li> </ul>
Entrepreneurship	-
Skill Development	<ul style="list-style-type: none"> <li>• Word formation</li> <li>• Sentence Synthesis</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Word formation</li> <li>• Sentence Synthesis</li> </ul>
Gender	-



Human Values	-
Environment & Sustainability	-
<b>Unit III</b>	<b>Language, Mind and Brain</b>
Local	<ul style="list-style-type: none"> <li>• Biological Foundations of Language</li> <li>• Language and Thought</li> <li>• Language Production and Processing</li> <li>• Lateralization and Localization</li> <li>• Language and Speech Disorders</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Biological Foundations of Language</li> <li>• Language and Thought</li> <li>• Language Production and Processing</li> </ul>
National	<ul style="list-style-type: none"> <li>• Biological Foundations of Language</li> <li>• Language and Thought</li> <li>• Language Production and Processing</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Biological Foundations of Language</li> <li>• Language and Thought</li> <li>• Language Production and Processing</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Biological Foundations of Language</li> <li>• Language and Thought</li> <li>• Language Production and Processing</li> <li>• Lateralization and Localization</li> <li>• Language and Speech Disorders</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Lateralization and Localization</li> <li>• Language and Speech Disorders</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Language and Speech Disorders</li> <li>• Biological Foundations of Language</li> </ul>
Gender	-
Human Values	<ul style="list-style-type: none"> <li>• Language and Speech Disorders</li> </ul>

Environment & Sustainability	-
Unit IV	<b>Language and Society</b>
Local	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
National	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> </ul>

	<ul style="list-style-type: none"> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
Entrepreneurship	-
Skill Development	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> <li>• Language and Dialect</li> <li>• Multilingualism- Differential status of Indian Classroom Language</li> </ul>
Gender	<ul style="list-style-type: none"> <li>• Relationship between language and society - Identity, power and discrimination</li> </ul>
Human Values	<ul style="list-style-type: none"> <li>• Standard and Non-Standard Varieties of Language -Pidgins and Creoles</li> </ul>
Environment & Sustainability	
SDG	<b>By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (SDG 4.1); Professional Development of Teachers (SDG 4.c)</b>
NEP 2020	<b>1. Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (NEP 4.1 - 4.46); The institution assesses the learning levels of the students and organises special programmes for advanced learners and slow learners (Criteria 2-Metric 2.2.1) 3. Group Discussion on the topic Relationship between Language and Society - Identity, dialect, standard and non- standard variety of language, Power, State and dicrimination with the students of Political Science of B.El.Ed. Sem III and V</b>
POE/4 <sup>th</sup> IR	Developing phonetic Transcription- Developing phonetic Transcription

<b>SEED105A</b>	<b>CORE MATHEMATICS I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic of Mathematics				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teacher will be able to:

- Understand number system and use them in various situations.
- Use arithmetic of letters to solve daily life problems.
- Grasp elementary geometrical ideas.
- Calculate perimeter, area and volume of different shapes.

### Course Outcomes:

On the completion of this course, the student-teachers will be able to:

**CO1** Understand the structure of the number system and the relationship between numbers.

**CO 2** Learn methods of determining unknowns to solve linear equations and inequalities

**CO 3** Learn elementary geometric concepts that will help them know more about the shapes around them.

**CO 4** Enable them to calculate the area and volume enclosed by different shapes.

**CO 5** The ability to solve mathematical problems using a variety of strategies.

### Catalog Description

This course enables students to think about various situations where we use numbers. Students shall learn how to use and express large numbers in symbols. Further, letters take over numbers arithmetic. Letters allow us to write rules and formulas in a general way. Students shall learn methods of determining unknowns to solve linear equations and inequalities that enable students to solve many daily life problems. Students shall also learn elementary geometric concepts that will help them know more about the shapes around them. It will further enable them to calculate the area and volume enclosed by different shapes.

### Course Content

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**Unit I:**

**12 Contact Hours**

**Number System**

- Knowing our Numbers
- Playing with Numbers
- Whole Numbers
- Negative Numbers and Integers
- Fractions

.

**Unit II:**

**15 Contact Hours**

**Algebra**

- Rational exponents, Irrational numbers & radicals
- Solving equations
- Solving inequalities
- Linear word problems
- Linear equations & graphs

**Unit III:**

**13 Contact Hours**

**Geometry**

- Basic geometrical ideas (2-D)
- Understanding Elementary Shapes (2-D and 3-D)
- Symmetry: (reflection and rotational)
- Construction (using Straight edge Scale, protractor, compasses)

**Unit IV:**

**10 Contact Hours**

**Mensuration**

- Perimeter
- Surface Areas
- Area
- Volume

### Suggested Text Books:

1. NCERT (2005) NCF 2005 Position Paper on Mathematics NCERT: New Delhi.
2. NCERT, Mathematics, Textbook for Class VI – VIII.

### Advanced Readings :

1. Brain Bolt, Mathematical Activities, A resource Book for Teachers, Cambridge University Press: Cambridge.
2. Manual of Upper Primary Mathematics Kit, Workshop Department, NCERT
3. R. D. Sharma, Mathematics, Dhanpat Rai Publications, Latest Edition.
4. Ram Ballabh, A Text book of coordinate geometry, Prakashan Kendra: Delhi, 13th Edition.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

Components	Attendance	Assignment	Mid Term-Exam	End Term-Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the structure of the number system and the relationship between numbers.	PO1
CO2	Learn methods of determining unknowns to solve linear equations and inequalities	PO10
CO3	Learn elementary geometric concepts that will help them know	PO3

	more about the shapes around them.	
<b>CO4</b>	Enable them to calculate the area and volume enclosed by different shapes	<b>PO5</b>
<b>CO5</b>	The ability to solve mathematical problems using a variety of strategies.	<b>PO8</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 105A	Core Mathematics-I	2				3			2		3				

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	2													
C O 2			3							3				
C O 3														
C O 4					3			2						
C O 5														
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Number System
Local	Knowing our Numbers Playing with Numbers Whole Numbers Negative Numbers and Integers Fractions
Regional	Knowing our Numbers Playing with Numbers Whole Numbers Negative Numbers and Integers Fractions
National	Knowing our Numbers Playing with Numbers Whole Numbers Negative Numbers and Integers Fractions
Global	Knowing our Numbers Playing with Numbers



	Whole Numbers Negative Numbers and Integers Fractions
Employability	Knowing our Numbers
Entrepreneurship	
Skill Development	Knowing our Numbers
Professional Ethics	Knowing our Numbers
Gender	
Human Values	
Environment & Sustainability	
Unit II	Algebra
Local	Rational exponents, Irrational numbers & radicals Solving equations
Regional	Rational exponents, Irrational numbers & radicals Solving equations
National	Rational exponents, Irrational numbers & radicals Solving equations Solving inequalities Linear word problems Linear equations & graphs
Global	Rational exponents, Irrational numbers & radicals Solving equations Solving inequalities Linear word problems Linear equations & graphs
Employability	Linear equations & graphs
Entrepreneurship	
Skill Development	Solving equations
Professional Ethics	Solving equations
Gender	
Human Values	

Environment & Sustainability	
Unit III	<b>Geometry</b>
Local	Basic geometrical ideas (2-D) Understanding Elementary Shapes (2-D and 3-D)
Regional	Basic geometrical ideas (2-D) Understanding Elementary Shapes (2-D and 3-D) Symmetry: (reflection and rotational) Construction (using Straight edge Scale, protractor, compasses)
National	Basic geometrical ideas (2-D) Understanding Elementary Shapes (2-D and 3-D) Symmetry: (reflection and rotational) Construction (using Straight edge Scale, protractor, compasses)
Global	Basic geometrical ideas (2-D) Understanding Elementary Shapes (2-D and 3-D) Symmetry: (reflection and rotational) Construction (using Straight edge Scale, protractor, compasses)
Employability	
Entrepreneurship	
Skill Development	Construction (using Straight edge Scale, protractor, compasses)
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	<b>Mensuration</b>
Local	Perimeter Surface Areas Area Volume
Regional	Perimeter Surface Areas

	Area Volume
National	Perimeter Surface Areas Area Volume
Global	Perimeter Surface Areas Area Volume
Employability	Perimeter Surface Areas Area Volume
Entrepreneurship	
Skill Development	
Professional Ethics	Perimeter Surface Areas Area Volume
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11. Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs  Skill Development and Employability

<b>Programme and Course Mapping</b>														
<b>C O</b>	<b>P O 1</b>	<b>P O 2</b>	<b>P O 3</b>	<b>P O 4</b>	<b>P O 5</b>	<b>P O 6</b>	<b>P O 7</b>	<b>P O 8</b>	<b>P O 9</b>	<b>P O 10</b>	<b>P O 11</b>	<b>P S O 1</b>	<b>P S O 2</b>	<b>P S O 3</b>
<b>C O 1</b>	2													
<b>C O 2</b>			3							3				
<b>C O 3</b>														
<b>C O 4</b>					3			2						
<b>C O 5</b>														
1=lightly mapped					2= moderately mapped					3=strongly mapped				

<b>SEED107A</b>	<b>CORE NATURAL SCIENCES I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of physics, chemistry and biology				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teacher will be able to:

- To understand the nature and significance of teaching natural sciences at the elementary level.
- To gain an understanding of some specific concepts of biology, physics, and chemistry.
- To develop a habit of scientific enquiry among student teachers and learn various activities through which the concepts of science can be understood.
- To critically analyze the content of natural sciences at the elementary level.

### Course Outcomes

On completion of this course, the student-teachers will be able to:

- CO1.** Identify the natural science as a discipline and its relationship with other disciplines.
- CO2.** Understand the application of Motion, Force and acceleration in daily life.
- CO3.** Understand the concept of cell structures, tissues and biological diversity in living organisms.
- CO4.** Identify the different components of our environment, the natural resources and ways to preserve them.
- CO5.** Analyze the content of natural sciences at the elementary level and its scope in day-to-day activities.

### Catalog Description

This course aims to review secondary school science content, with a focus on methods of science and the development of skills of scientific enquiry. The course gives a hands-on experience of scientific knowledge through activities and projects to develop skill of scientific enquiry.

## Course Content

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**Unit I:** **12** **Contact**

**Hours**

### Atoms and Molecules

- Structure of Atom
- Atomic Mass
- Elements and Symbols of Elements
- Molecules and Molecules of Elements and Compounds
- Concept of Ion
- Writing Chemical Formulae

**Unit II:** **12 Contact Hours**

### Motion and Laws of Motion

- Concept of Motion
- Types of Motion
- Speed, Velocity and Acceleration
- Equations of Motion
- Force, Friction and Inertia
- Laws of Motion

**Unit III:** **10 Contact Hours**

### The Fundamental Unit of Life

- Cell Structure and Functions
- Animal Tissues
- Plant Tissues
- Diversity in Living Organisms

**Unit IV:** **16 Contact Hours**

### Our Environment and Natural Resources

- Eco-system and its Components
- Food Chains and Webs

- Biogeochemical Cycles: The Water-Cycle, The Nitrogen-Cycle and The Carbon-Cycle
- Natural Resources - Resources on Earth, Minerals Riches in the Soil
- Changes in Environment - Depletion in Ozone Layer, Greenhouse Effect

### Suggested Text Books

1. NCERT Class IX Textbook, NCERT, New Delhi.
2. NCERT Class X Textbook, NCERT, New Delhi.

### Advanced Readings

1. Eklavya (1978). Bal Vigyanik, Class 6, 7, 8, Madhya Pradesh Pathyapustak Nigam: Bhopal.
2. Leoburn, A. (1966). Tell Me Why, Hamlyn Publication: London.
3. Nelson, R. and Lotoian, B. Fundamental Concepts of Biology, John Wiley & Sons: New York.
4. Ziman, J. (1984). An introduction to Science Studies, Cambridge University Press: Cambridge.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)
5. <https://www.youtube.com/watch?v=erghLWXDScl>

### Modes of Evaluation: Student's performance based on continuous evaluation

Components	Attendance	Assignment	Mid Term Exam		End Term Exam
Weightage (%)	10	20	20		50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs	
Course Outcomes (COs)	Mapped Programme

		Outcomes
<b>Programme and Course Mapping</b>		
<b>CO1</b>	Identify the natural science as a discipline and its relationship with other disciplines.	<b>PO1</b>
<b>CO2</b>	Understand the application of Motion, Force and acceleration in daily life.	<b>PO3</b>
<b>CO3</b>	Understand the concept of cell structures, tissues and biological diversity in living organisms.	<b>PO2</b>
<b>CO4</b>	Identify the different components of our environment, the natural resources and ways to preserve them.	<b>PO4</b>
<b>CO5</b>	Analyze the content of natural sciences at the elementary level and its scope in day-to-day activities.	<b>PO11</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 107A	Core Natural Sciences I	2	2	3								3	2	2	

1= lightly mapped

2= moderately mapped

3=strongly mapped



C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	2												2	
C O 2			2									2		
C O 3		3												
C O 4				3										
C O 5											3			
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Atoms and Molecules
Local	
Regional	
National	
Global	Elements and Symbols of Elements Molecules and Molecules of Elements and Compounds
Employability	
Entrepreneurship	
Skill Development	Writing Chemical Formulae
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	Motion and Laws of Motion
Local	

Regional	
National	
Global	Motion, speed, velocity and laws of motions
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Implications of laws of motions
<b>Unit III</b>	<b>The Fundamental Unit of Life</b>
Local	
Regional	
National	
Global	Cell Structure and Functions Tissue Diversity in Living Organisms
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Our Environment and Natural Resources</b>
Local	

Regional	Food Chains and Webs Biogeochemical Cycles
National	Food Chains and Webs Biogeochemical Cycles
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Eco-system Natural Resources Depletion in Ozone Layer, Greenhouse Effect
SDG	Professional Development of Teachers (SDG 4.c)
NEP 2020	Foundational Literacy and Numeracy: An Urgent & Necessary Prerequisite to Learning (2.1-2.9) Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
POE/4 <sup>th</sup> IR	Internship

<b>SEED109A</b>	<b>CORE SOCIAL SCIENCES I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Government and Society				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teacher will be able to:

- Understand the nature and significance of teaching social sciences at the elementary level.
- Understand the evolutionary nature of society.
- Comprehend the meaning of democracy and its peculiarities for Indian society.
- Critically examine the social, economic, political and demographical challenges for India.

### Course Outcomes

On the completion of this course, the student-teachers will be able to:

**CO1** Identify the social science as a discipline and its relationship with other disciplines.

**CO2** Understand the nature of society, individuals and groups and its relevance for the students of elementary level of education

**CO 3** Critically examine the different phases of development of societies and their features.

**CO 4** Learn about the features of the Constitution of India and identify India as a democratic nation.

**CO 5** Analyse the social and economic challenges being faced by India after LPG.

### Catalog Description

The aim of the paper is to provide a foundation in context of present-day structures. Social science cannot be studied in isolation, its interaction with other subjects is equally crucial. It is an interdisciplinary realm. It primarily aims at understanding various phenomenon in immediate social and political environment. The learners are introduced to the diversity of people and their practices in different societies, regions, etc. It has an important role in generating sensitivity towards human values of peace, cooperation, social justice, environmental protection and other concerns.

## Course Content

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### **Unit I:** **12 Contact Hours**

#### **Social Science as a Discipline:**

- Nature of Social Science,
- Social Science as a discipline,
- Importance of Social Sciences,
- Relationship of Social Science with other disciplines

### **Unit II:** **15 Contact Hours**

#### **Livelihood, Economies and Societies**

- The pre-modern world,
- The age of industrialization,
- The 19<sup>th</sup> century global economy,
- Concept of Liberalization, privatization and globalization

### **Unit III:** **15 Contact Hours**

#### **Working of Indian Democracy**

- Historical Background,
- Making of the Constitution,
- Salient Features of Indian Constitution,
- Preamble of the constitution.
- Fundamental Rights,
- Fundamental Duties
- Directive Principles of State Policy.

### **Unit IV:** **15 Contact Hours**

#### **Challenges for Independent India:**

- Causes that led to partition,
- Two-Nation Theory,
- Nation-building,
- Meaning of National Integration
- Obstacles to National Integration.

### Suggested Text Books:

1. NCERT Class IX Textbook, NCERT, New Delhi.
2. NCERT Class X Textbook, NCERT, New Delhi

### Advanced Readings:

1. Aggarwal R.C. and Bhatnagar, Mahesh (2005). Constitutional Development and National Movement in India, S. Chand.
2. Chandra, Bipan (2009). History of Modern India, Orient Blackswan.
3. Chandra, Bipan (2016). India's Struggle for Independence: 1857-1947, Penguin India.
4. Roskin, Michael G. and Robert L. et al (2017). Political Science: An Introduction, Pearson.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)
5. <https://www.youtube.com/watch?v=3PsH0-mfWzQ>

### Modes of Evaluation: Student's performance based on continuous evaluation

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Identify the social science as a discipline and its relationship with other disciplines.	PO11
CO2	Understand the nature of society, individuals and groups and	PO10

	its relevance for the students of elementary level of education	
<b>CO3</b>	Critically examine the different phases of development of societies and their features.	<b>PO3</b>
<b>CO4</b>	Learn about the features of the Constitution of India and identify India as a democratic nation	<b>PO5</b>
<b>CO5</b>	Analyse the social and economic challenges being faced by India after LPG.	<b>PO7</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 109A	Core Social Sciences I		3	2		3		3	2			2		3	

1= lightly mapped

2= moderately mapped

3=strongly map

<b>SEED111A</b>	<b>SCHOOL EXPOSURE I</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Field Exposure				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teacher will be able to:

- Interact with elementary school children.
- Explore creative ways of organizing activities for children.
- Reflect upon their experiences.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Understanding and importance of School Visit

**CO2:** Understand and recognize the standard as values in Social programme/awareness

**CO3** Develop the leadership quality in the student.

**CO4:** Synthesise the strategies to promote ethical standards in teaching-learning process

### Catalogue Description

The School Exposure I Programme shall be carried out during the first semester in local/nearby school or schools. For this, the student may be placed in regional language medium schools; and the rest may be placed in Government, Private, Urban, Rural and Schools for challenged learners.

A student teacher needs to visit at least two types of schools: in the first week to one type of school; and in the second week to another type of school. A brief orientation programme can be arranged before sending the student-teachers to schools to acquaint them with the objectives and modalities of such programme. Student-teachers will undertake different assignments during their visits to schools.

During this programme, the student-teachers shall observe the school/classroom environments with reference to infrastructure, equipments, teaching learning materials, human resources,



organisation of various activities, etc. form classes I to VIII and prepare a profile of the school to which they are attached. The institute shall develop detailed guidelines for school observation; and orient the student-teachers to the process of school observation as well as to the use of guidelines.

After completion of the field exposure programme, student-teachers shall be required to develop a detailed report and share the same in a seminar/meeting at the Institute.

### Course Content

During this period teacher-trainee will be engaged in different groups of activities under the supervision of the teacher-Incharge and submit the report.

Activity: 1 Class Room Observation

Activity: 2 Visit different types of lab (Preparation of Lab report)

Activity: 3 Develop teaching learning resources

Activity: 4 Organise different types of social awareness Programme

Activity: 5 Prepare a report on special children (If Any)

**Modes of Evaluation:** Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record Examination Scheme:

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	understanding and importance of School Visit	PO7
CO2	Understand and recognize the standard as values in Social programme/awareness	PO4

<b>CO3</b>	Develop the leadership quality in the student.	<b>PO7</b>
<b>CO4</b>	Synthesise the strategies to promote ethical standards in teaching-learning process	<b>PO3</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED111A	School Exposure I			3	3			3		2			3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

1																	Programme and Course Mapping									
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7							
CO1	3											2														
CO2		2		3										3												
CO3					3										2											
CO4									3							3										
1=lightly mapped																	2= moderately mapped					3=strongly mapped				

<b>Unit I</b>	<b>Activity: 1 Class Room Observation</b>
<b>Local</b>	Class Room Observation
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	

<b>Employability</b>	Class Room Observation
<b>Entrepreneurship</b>	
<b>Skill Development</b>	Class Room Observation
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>Unit II</b>	<b>Activity: 2 Visit different types of lab (Preparation of Lab report)</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	Visit different types of lab (Preparation of Lab report)
<b>Entrepreneurship</b>	
<b>Skill Development</b>	Visit different types of lab (Preparation of Lab report)
<b>Professional Ethics</b>	Visit different types of lab (Preparation of Lab report)
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>Unit III</b>	<b>Activity: 3 Develop teaching learning resources</b>
<b>Local</b>	Develop teaching learning resources
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	Develop teaching learning resources

<b>Entrepreneurship</b>	
<b>Skill Development</b>	Develop teaching learning resources
<b>Professional Ethics</b>	Develop teaching learning resources
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>Unit IV</b>	<b>Activity: 4 Organise different types of social awareness Programme</b> <b>Activity: 5 Prepare a report on special children (If Any)</b>
<b>Local</b>	Prepare a report on special children (If Any)
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	Prepare a report on special children (If Any)
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<ul style="list-style-type: none"> <li>• Organise different types of social awareness Programme</li> <li>• Prepare a report on special children (If Any)</li> </ul>
<b>Professional Ethics</b>	Organise different types of social awareness Programme
<b>Gender</b>	
<b>Human Values</b>	Organise different types of social awareness Programme
<b>Environment &amp; Sustainability</b>	
<b>SDG</b>	<b>Professional Development of Teachers</b>
<b>NEP 2020</b>	<b>Equitable and Inclusive Education</b>
<b>POE/4<sup>th</sup> IR</b>	<b>Skill Development</b>

## SEMESTER II

<b>SEED102A</b>	<b>CHILD DEVELOPMENT</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Child and stages of human life				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teachers will be able to:

- Get a critical understanding of theories of child development.
- Gain insights on socialization theories.
- Develop an understanding of a preschool growing child.

### Course Outcomes

On completion of this course, the student-teachers will be able to:

**CO1** Understand the growth and development of children.

**CO2** Understand the role of observation of children's development in the workplace

**CO3.** Learn how to observe children's development

**CO4.** Understand the required planning to support children's needs and development

### Catalog Description

The course presents a detailed study of the growth and development of children from the purview of different domains, viz. cognitive, emotional, physical and motor across different stages of life. The learners are presented with a critical study of significant theoretical frameworks and methodological approaches to child study. It deals with constructs and issues in the development of children leading to implications for education. The learners are provided with real experiences to study and observe children at different levels of development. They are given an opportunity to learn about individual differences and how they can relate these concepts in classroom teaching and learning.

### Course Content

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**Unit I:**

**12 Contact Hours**

**Concept, Issues and Theories of Human Development**

- What is development and why should we study it
- Developmental principles
- Influences of heredity and environment
- Methods for studying development
- Concepts of socialization
- Education and acculturation in the context of development
- Theories of Erikson, Piaget and Kohlberg
- Significant developmental periods in the human life span

**Unit II:**

**12 Contact Hours**

**Birth and Infancy**

- Importance of conception
- Pre-natal development and birth
- Physical and mental development of infants
- Emotions in infancy
- The infant in the family and implications for personality development

**Unit III:**

**12 Contact Hours**

**The Pre-school Child**

- Physical growth and motor development
- Intellectual characteristics
- Development of personality with special reference to identification and child-rearing techniques
- Gender-stereotyping
- Morality
- Play patterns of preschool children

**Unit IV:**

**15 Contact Hours**

**The Elementary School Child**

- Physical growth and development.

- The developing mind — intelligence; language and thought.
- The social world of the child, parents and children, friends, school and media, play.
- Moral attitudes and behavior.
- Development of self-identity, self-concept.
- Gender roles.
- Play, interests and activities of the elementary school child.

### **Suggested Text Books**

1. Berk, L. E. (2006). Child Development Seventh Edition.
2. Woolfolk Hoy, A. (2000). Educational psychology in teacher education. *Educational Psychologist*, 35(4), 257-270.

### **Advanced Readings**

1. Branes, P. (Ed.) (1995). Personal, Social and Emotional Development of Children, Blackwell: Oxford, Chapter 1 and 6.
2. Crain, William C. (1980). Theories of Development: Concepts and Applications, Prentice Hall of India, New Delhi 1980.
3. Stewart, A. Clarke and Friedman, S. (1987). Child development: Infancy through Adolescence, John-Wiley and Sons, UK.
4. Uma Mangal (2014). Childhood and Growing Up, Tandon Publication.

### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in/>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### **Modes of Evaluation: Student's performance based on continuous evaluation**

#### **Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

### **Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the growth and development of children.	PO1
CO2	Understand the role of observation of children's development in the workplace.	PO1
CO3	Learn how to observe children's development	PO7
CO4	Understand the required planning to support children's needs and development	PO13

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 102A	Child Development	3						2						3	

1= lightly mapped

2= moderately mapped

3=strongly mapped



<b>Programme and Course Mapping</b>														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	PS O1	PS O2	PS O3
C O 1	3													
C O 2	3						2						3	
C O 3														
C O 4											3			
1=lightly mapped					2= moderately mapped					3=strongly mapped				

Unit I	<b>Concept, Issues and Theories of Human Development</b>
Local	
Regional	
National	Education and acculturation
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	Concepts of socialization Significant developmental periods in the human life span
Environment & Sustainability	
Unit II	<b>Birth and Infancy</b>
Local	
Regional	

National	
Global	
Employability	
Entrepreneurship	
Skill Development	Physical and mental development of infants
Professional Ethics	
Gender	
Human Values	Emotions in infancy Importance of conception
Environment & Sustainability	
<b>Unit III</b>	<b>The Pre-school Child</b>
Local	
Regional	
National	
Global	
Employability	Play patterns of preschool children
Entrepreneurship	Play patterns of preschool children
Skill Development	
Professional Ethics	
Gender	
Human Values	Gender-stereotyping Morality
Environment & Sustainability	
<b>Unit IV</b>	<b>The Elementary School Child</b>
Local	
Regional	

National	
Global	
Employability	
Entrepreneurship	
Skill Development	The developing mind — intelligence; language and thought.
Professional Ethics	
Gender	
Human Values	The social world of the child, parents and children, friends, school and media, play. Moral attitudes and behavior. Development of self-identity, self-concept. Gender roles.
Environment & Sustainability	
SDG	Safe and Inclusive Learning Environments (SDG 4.a) Professional Development of Teachers (SDG 4.c)
NEP 2020	Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46) Equitable and Inclusive Education: Learning for All (6.1- 6.20) Equity and Inclusion in Higher Education (14.1- 14.4.2)
POE/4 <sup>th</sup> IR	Projects

<b>SEED104A</b>	<b>NATURE OF LANGUAGE II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Fundamental of Language				
<b>Co-requisites</b>	--				

## Course Objectives

The course will enable the student-teachers to:

- Gain an understanding of the principles of Language Pedagogy.
- Understand the relationship between Language and Society.
- Apply these principles as needed to various classroom situations and instructional material.
- Understand the nature of language and the structure and development of the English language system.
- Assess the strategy of teaching another language in a multilingual classroom.

## Course Outcomes

On completion of this course, the student- teachers will be able to:

**CO1.** Evaluate the Grammar and Writing in the development of Language System

**CO2.** Associate the structure of language with Classroom Discourse

**CO3.** Apply the principles of language pedagogy in the Language Classroom

**CO4.** Summarize the role of language in the multilingual classroom of Indian School

## Catalogue Description

This course builds upon the students' existing knowledge of language and linguistic systems. It carries a detailed outline of the notions of grammar in particular and Universal grammar in particular. It also contains discussion about the classroom discourse structure and language pedagogy strategies. It provides a foundational understanding on critical concepts and key strategies for teaching a second or foreign language to learners with various backgrounds and at all levels of proficiency.

## Course Content

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### Unit I:

15 Contact Hours

#### Phonetics, Morphology, Grammar and Writing

Organs of Speech

- IPA Symbols
- Classification of Consonants and Vowels
- Morphology
  - Morphs
  - Morphemes
  - Inflection and Derivation
- Word Building Processes
- Universal Grammar
- Prescriptive and Descriptive Grammars
- Parts of Speech
- Grammatical Gender
- Syllabic and Alphabetic Writing
- Speech and Writing

### Unit II:

10 Contact Hours

#### Classroom and Discourse Analysis

- Organization of Discourse
- Classroom Discourse: Structure and Nature
- Structure of a poem, story and essay
- Interpreting and Teaching a Text.
  - Different Methods of Language teaching.

### Unit III:

15 Contact

Hours

#### Language and Society

- Relationship between Language and Society
- Classification of Language Varieties- Dialects, Accents, Registers
- Language in Contact
  - Diglossia
  - Code-switching and Code-mixing
  - Pidgins and Creoles

#### **Unit IV:**

**10 Contact Hours**

#### **Multilingualism in India**

Language Families of India

- Multilingualism in India
- Second vs Foreign Language
- Strategies of Teaching in a Multilingual Classroom.
- Home and School Language
- Three Language Formula

#### **Practical**

- Talk to the students and find out the different languages that they speak. Prepare a plan to use multilingualism as a strategy in the English classroom.
- Visit 5 schools in the neighborhood and prepare a report on the three-language formula being implemented in the schools.
- Prepare a script of any subject by using Multilingualism as Resource in the classroom.
- Make Phonemic Chart of your own language and find out the different sounds available in the phonemic chart in other classmates.
- Make a list of Inflections and Derivations from your First Language

#### **Suggested Text Books :**

1. Yule, G. (2006). *The study of language. Cambridge University Press,UK*
2. Balasubramaniam, T. (2017). *Textbook of English Phonetics for Indian Students. Lakshmi Publication.*

#### **Advanced Readings**

1. Fromkin, V., Rodman, R., & Hyams, N. M. (2007). *An Introduction to Language. Boston, MA: Thomson Wadsworth.*
2. Hudson, R.A. (1980). *Sociolinguistic. Cambridge: Cambridge University Press.*

3. Mesthrie, Rajend and Rakesh, M. Bhatt (2008). World English: The Study of New Linguistic Varieties. *Cambridge: Cambridge University Press.*
4. Parasher, S.V. (1991). Indian English: Functions and Form, *New Delhi: Bahri Publication.*

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in/>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Programme Outcomes
		<b>PO2</b>
<b>CO1</b>	Evaluate the Grammar and Writing in the development of Language System	<b>PO11</b>
<b>CO2</b>	Associate the structure of language with Classroom Discourse	<b>PO10</b>
<b>CO3</b>	Apply the principles of language pedagogy in the Language Classroom	<b>PO6</b>
<b>CO4</b>	Summarize the role of language in the multilingual classroom of Indian School	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>C</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>
<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>S</b>	<b>S</b>	<b>S</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>1</b>	<b>2</b>	<b>3</b>	
<b>C</b>		3											3	
<b>O</b>											3			
<b>1</b>										3				
<b>C</b>														
<b>O</b>						3								
<b>2</b>														
<b>C</b>														
<b>O</b>														
<b>3</b>														
<b>C</b>														
<b>O</b>														
<b>4</b>														
1=lightly mapped			2= moderately mapped						3=strongly mapped					

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEED104A	Nature of Language II		3				3				3	3		3	

<b>Unit I</b>	<b>Phonetics, Morphology, Grammar and Writing</b>
Local	Organs of Speech <ul style="list-style-type: none"> <li>• IPA Symbols</li> <li>• Classification of Consonants and Vowels</li> </ul>



	<ul style="list-style-type: none"> <li>• Morphology <ul style="list-style-type: none"> <li>- Morphs</li> <li>- Morphemes</li> <li>- Inflection and Derivation</li> </ul> </li> <li>• Word Building Processes</li> <li>• Universal Grammar</li> <li>• Prescriptive and Descriptive Grammars</li> <li>• Syllabic and Alphabetic Writing <ul style="list-style-type: none"> <li>• Speech and Writing</li> </ul> </li> </ul>
Regional	<p>Organs of Speech</p> <ul style="list-style-type: none"> <li>• IPA Symbols</li> <li>• Classification of Consonants and Vowels</li> <li>• Morphology <ul style="list-style-type: none"> <li>- Morphs</li> <li>- Morphemes</li> <li>- Inflection and Derivation</li> </ul> </li> <li>• Word Building Processes</li> <li>• Universal Grammar</li> <li>• Prescriptive and Descriptive Grammars</li> <li>• Syllabic and Alphabetic Writing <ul style="list-style-type: none"> <li>• Speech and Writing</li> </ul> </li> </ul>
National	<p>Organs of Speech</p> <ul style="list-style-type: none"> <li>• IPA Symbols</li> <li>• Classification of Consonants and Vowels</li> <li>• Morphology <ul style="list-style-type: none"> <li>- Morphs</li> <li>- Morphemes</li> <li>- Inflection and Derivation</li> </ul> </li> <li>• Word Building Processes</li> <li>• Universal Grammar</li> <li>• Prescriptive and Descriptive Grammars</li> <li>• Syllabic and Alphabetic Writing</li> </ul>

	<ul style="list-style-type: none"> <li>• Speech and Writing</li> </ul> <p>Organs of Speech</p> <ul style="list-style-type: none"> <li>• IPA Symbols</li> <li>• Classification of Consonants and Vowels</li> <li>• Morphology <ul style="list-style-type: none"> <li>- Morphs</li> <li>- Morphemes</li> <li>- Inflection and Derivation</li> </ul> </li> <li>• Word Building Processes</li> <li>• Universal Grammar</li> <li>• Prescriptive and Descriptive Grammars</li> <li>• Syllabic and Alphabetic Writing <ul style="list-style-type: none"> <li>• Speech and Writing</li> </ul> </li> </ul>
Global	
Employability	<p>Organs of Speech</p> <ul style="list-style-type: none"> <li>• IPA Symbols</li> <li>• Classification of Consonants and Vowels</li> <li>• Morphology <ul style="list-style-type: none"> <li>- Morphs</li> <li>- Morphemes</li> <li>- Inflection and Derivation</li> </ul> </li> <li>• Word Building Processes</li> <li>• Universal Grammar</li> <li>• Prescriptive and Descriptive Grammars</li> <li>• Syllabic and Alphabetic Writing <ul style="list-style-type: none"> <li>• Speech and Writing</li> </ul> </li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Organs of Speech <ul style="list-style-type: none"> <li>• IPA Symbols</li> <li>• Classification of Consonants and Vowels</li> <li>• Morphology <ul style="list-style-type: none"> <li>• - Morphs</li> </ul> </li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• - Morphemes</li> <li>• - Inflection and Derivation</li> <li>• Word Building Processes</li> <li>• Universal Grammar</li> <li>• Prescriptive and Descriptive Grammars</li> <li>• Syllabic and Alphabetic Writing</li> <li>• Speech and Writing</li> </ul>
Professional Ethics	
Gender	<ul style="list-style-type: none"> <li>• Grammatical Gender</li> </ul>
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Classroom and Discourse Analysis</b>
Local	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> <li>• Structure of a poem, story and essay</li> <li>• Interpreting and Teaching a Text. <ul style="list-style-type: none"> <li>▪ Different Methods of Language teaching.</li> </ul> </li> </ul>
Regional	
National	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> <li>• Structure of a poem, story and essay</li> <li>• Interpreting and Teaching a Text. <ul style="list-style-type: none"> <li>▪ Different Methods of Language teaching.</li> </ul> </li> </ul>
Global	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> <li>• Structure of a poem, story and essay</li> <li>• Interpreting and Teaching a Text. <ul style="list-style-type: none"> <li>▪ Different Methods of Language teaching.</li> </ul> </li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> <li>• Structure of a poem, story and essay</li> <li>• Interpreting and Teaching a Text.</li> </ul>

	<ul style="list-style-type: none"> <li>▪ Different Methods of Language teaching.</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> <li>• Structure of a poem, story and essay</li> <li>• Interpreting and Teaching a Text. <ul style="list-style-type: none"> <li>▪ Different Methods of Language teaching.</li> </ul> </li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> <li>• Structure of a poem, story and essay</li> <li>• Interpreting and Teaching a Text. <ul style="list-style-type: none"> <li>▪ Different Methods of Language teaching.</li> </ul> </li> </ul>
Gender	
Human Values	<ul style="list-style-type: none"> <li>• Organization of Discourse</li> <li>• Classroom Discourse: Structure and Nature</li> </ul>
Environment & Sustainability	
<b>Unit III</b>	<b>Language and Society</b>
Local	<ul style="list-style-type: none"> <li>• Relationship between Language and Society</li> <li>• Classification of Language Varieties- Dialects, Accents, Registers</li> <li>• Language in Contact <ul style="list-style-type: none"> <li>• Diglossia <ul style="list-style-type: none"> <li>- Code-switching and Code-mixing</li> <li>- Pidgins and Creoles</li> </ul> </li> </ul> </li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Relationship between Language and Society</li> <li>• Classification of Language Varieties- Dialects, Accents, Registers</li> <li>• Language in Contact <ul style="list-style-type: none"> <li>• Diglossia <ul style="list-style-type: none"> <li>- Code-switching and Code-mixing</li> <li>- Pidgins and Creoles</li> </ul> </li> </ul> </li> </ul>
National	<ul style="list-style-type: none"> <li>• Relationship between Language and Society</li> <li>• Classification of Language Varieties- Dialects, Accents, Registers</li> </ul>

	<ul style="list-style-type: none"> <li>• Language in Contact <ul style="list-style-type: none"> <li>• Diglossia <ul style="list-style-type: none"> <li>- Code-switching and Code-mixing</li> <li>- Pidgins and Creoles</li> </ul> </li> </ul> </li> </ul>
Global	<ul style="list-style-type: none"> <li>• Relationship between Language and Society</li> <li>• Classification of Language Varieties- Dialects, Accents, Registers</li> <li>• Language in Contact <ul style="list-style-type: none"> <li>• Diglossia <ul style="list-style-type: none"> <li>- Code-switching and Code-mixing</li> <li>- Pidgins and Creoles</li> </ul> </li> </ul> </li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Relationship between Language and Society</li> <li>• Classification of Language Varieties- Dialects, Accents, Registers</li> <li>• Language in Contact <ul style="list-style-type: none"> <li>• Diglossia <ul style="list-style-type: none"> <li>- Code-switching and Code-mixing</li> <li>- Pidgins and Creoles</li> </ul> </li> </ul> </li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Classification of Language Varieties- Dialects, Accents, Registers</li> <li>• Language in Contact <ul style="list-style-type: none"> <li>• Diglossia <ul style="list-style-type: none"> <li>- Code-switching and Code-mixing</li> <li>- Pidgins and Creoles</li> </ul> </li> </ul> </li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Relationship between Language and Society</li> </ul>
Gender	
Human Values	<ul style="list-style-type: none"> <li>• Language in Contact</li> </ul>
Environment & Sustainability	
Unit IV	<b>Multilingualism in India</b>
Local	<p>Language Families of India</p> <ul style="list-style-type: none"> <li>• Multilingualism in India</li> <li>• Second vs Foreign Language</li> <li>• Strategies of Teaching in a Multilingual Classroom.</li> </ul>

	<ul style="list-style-type: none"> <li>• Home and School Language</li> <li>• Three Language Formula</li> </ul>
Regional	<p>Language Families of India</p> <ul style="list-style-type: none"> <li>• Multilingualism in India</li> <li>• Second vs Foreign Language</li> <li>• Strategies of Teaching in a Multilingual Classroom.</li> <li>• Home and School Language</li> <li>• Three Language Formula</li> </ul>
National	<p>Language Families of India</p> <ul style="list-style-type: none"> <li>• Multilingualism in India</li> <li>• Second vs Foreign Language</li> <li>• Strategies of Teaching in a Multilingual Classroom.</li> <li>• Home and School Language</li> <li>• Three Language Formula</li> </ul>
Global	
Employability	<ul style="list-style-type: none"> <li>• Strategies of Teaching in a Multilingual Classroom.</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Strategies of Teaching in a Multilingual Classroom.</li> <li>• Language Families of India</li> </ul>
Professional Ethics	<p>Language Families of India</p> <ul style="list-style-type: none"> <li>• Multilingualism in India</li> <li>• Second vs Foreign Language</li> <li>• Strategies of Teaching in a Multilingual Classroom.</li> <li>• Home and School Language</li> <li>• Three Language Formula</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
SDG	<p>By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (SDG 4.1) Professional Development of Teachers (SDG 4.c) Listening activity on Phonetic Transcriptions</p>
NEP 2020	<p>1. Curriculum and Pedagogy in Schools: Learning Should be Holistic,</p>

	<p>Integrated, Enjoyable, and Engaging (NEP 4.1 - 4.46).  2. Multilingualism and the Power of Language (4.11) 1. The students will understand the different status of of Indian Classroom Language, different standard and non-standard varieties of language, relationship between dialect and language. 2. The students will be given the understanding that the home/local language shall continue to be taught as a language wherever possible. In case where home language /mother tongue material is not available, the language of transaction between teachers and students will remain the home language/ mother tongue wherever possible. 3. The institution assesses the learning levels of the students and organises special programmes for advanced learners and slow learners (Criteria 2- Metric 2.2.1) 4. Group Discussion on the topic Relationship between Language and Society - Identity, dialect, standard and non- standard variety of language, Power, State and dicrimination with the students of Political Science of B.El.Ed. Sem III and V</p>
POE/4 <sup>th</sup> IR	<p>Skill Development, 1. The students will be able to compare different sound system of language 2. Students will be the active listener 3. Students will attain the cross-cultural competence</p>

<b>SEED106A</b>	<b>CORE MATHEMATICS II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of Mathematics				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teachers will be able to:

- Understand functions and use them in various situations.
- Use of linear equations in daily life problems.
- Find solutions of quadratic equations.
- Represent data graphically.

### Course Outcomes

On the completion of this course, the student- teachers will be able to:

**CO1** Learn how to use and express mathematically some elementary functions such as linear and exponential

**CO 2** Learn methods of determining unknowns to solve linear equations

**CO 3** Learn to find out roots of polynomials and their properties

**CO4** Learn graphical representation of data, and use of mean, median and mode.

**CO5** Acquire data handling skills.

### Catalog Description

This course enables students to think about various situations where we use functions. Students shall learn how to use and express mathematically some elementary functions such as linear and exponential. Students shall learn methods of determining unknowns to solve linear equations, and that will enable them to solve many daily life problems. Polynomials in one variable are also part of this learning programme. Students shall learn to find out roots of polynomials and their properties. Students shall also acquire data handling skills. In particular, they will be learning graphical representation of data, and use of mean, median and mode.



## Course Content

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### Unit I:

15 Contact Hours

#### Functions

- Linear and exponential Functions
- Function domain and range
- Interpreting the graph of a function
- Linear and exponential Models - comparing growth rates
- Piecewise functions
- Graphing absolute value functions
- Using functions and graphs to solve problems

.

### Unit II:

12 Contact Hours

#### Polynomials

- Polynomials in One Variable
- Zeroes of a Polynomial and its Geometrical Meaning
- Relationship between Zeroes and Coefficients of a Polynomial
- Remainder Theorem
- Factorisation of Polynomials
- Algebraic Identities

### Unit III:

10 Contact Hours

#### Equations

- Pair of Linear Equations in Two Variables
- Solution of a Pair of Linear Equations (Graphical and Algebraic)
- Equations Reducible to a Pair of Linear Equations in Two Variables
- Solution of a Quadratic Equation
- Nature of Roots of a Quadratic Equation (Real and Complex)

### Unit IV:

15 Contact Hours

## **Data Handling**

- Collection of Data
- Presentation of Data
- Graphical Representation of Data
- Measures of Central Tendency (Grouped and Ungrouped Data)
- Data Distributions

## **Suggested Text Books**

1. NCERT, Exemplar Problems for Class IX – X.
2. NCERT, Mathematics, Textbook for Class IX – X.

## **Advanced Readings**

1. Aggarwal, M. L. (2019). Laboratory Manual Mathematics (Activity Based) - IX - X, Avichal Publishing Company; 4th Edition.
2. Benton, D. James, Living Math: Seeing mathematics in everyday life, Amazon Asia-Pacific Holdings Private Limited
3. Bolt, Brain and Hobbs, David (1990). 101 Mathematical Projects, Cambridge University Press: New York.
4. Guidelines for Mathematics Laboratory in Schools Class X, Central Board of Secondary Education.
5. Haigh, John, Mathematics in Everyday Life, Springer; 1st edition (2016)
6. The Teaching of Secondary School Mathematics (1970): XXXIII Yearbook of NCTM Washington.
7. William L. Hays, Holt, Rinehart and Winston (1965). Statistics for Psychologists. New York.

## **Online references:**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

## **Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Learn how to use and express mathematically some elementary functions such as linear and exponential	<b>PO3</b>
<b>CO2</b>	Learn methods of determining unknowns to solve linear equations	<b>PO5</b>
<b>CO3</b>	Learn to find out roots of polynomials and their properties	<b>PO8</b>
<b>CO4</b>	Learn graphical representation of data, and use of mean, median and mode.	<b>PO10</b>
<b>CO5</b>	Acquire data handling skills.	<b>PO7</b>

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self Development and Community Attachment</b>	<b>S Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research Ethics and Entrepreneurial Skills</b>
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
SEE D 106A	Core Mathematics -II			3		2		2	3		2				

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1			3											
C O 2					2									
C O 3								3		2				
C O 4														
C O 5							2							
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Functions
Local	Linear and exponential Functions Function domain and range Interpreting the graph of a function Linear and exponential Models - comparing growth rates Piecewise functions Graphing absolute value functions Using functions and graphs to solve problems
Regional	Linear and exponential Functions Function domain and range Interpreting the graph of a function Linear and exponential Models - comparing growth rates Piecewise functions Graphing absolute value functions Using functions and graphs to solve problems

National	<p>Linear and exponential Functions</p> <p>Function domain and range</p> <p>Interpreting the graph of a function</p> <p>Linear and exponential Models - comparing growth rates</p> <p>Piecewise functions</p> <p>Graphing absolute value functions</p> <p>Using functions and graphs to solve problems</p>
Global	<p>Linear and exponential Functions</p> <p>Function domain and range</p> <p>Interpreting the graph of a function</p> <p>Linear and exponential Models - comparing growth rates</p> <p>Piecewise functions</p> <p>Graphing absolute value functions</p> <p>Using functions and graphs to solve problems</p>
Employability	Using functions and graphs to solve problems
Entrepreneurship	
Skill Development	Interpreting the graph of a function
Professional Ethics	Using functions and graphs to solve problems
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Polynomials</b>
Local	<p>Polynomials in One Variable</p> <p>Zeroes of a Polynomial and its Geometrical Meaning</p> <p>Relationship between Zeroes and Coefficients of a Polynomial</p> <p>Remainder Theorem</p>

	Factorisation of Polynomials Algebraic Identities
Regional	Polynomials in One Variable Zeroes of a Polynomial and its Geometrical Meaning Relationship between Zeroes and Coefficients of a Polynomial Remainder Theorem Factorisation of Polynomials Algebraic Identities
National	Polynomials in One Variable Zeroes of a Polynomial and its Geometrical Meaning Relationship between Zeroes and Coefficients of a Polynomial Remainder Theorem Factorisation of Polynomials Algebraic Identities
Global	Polynomials in One Variable Zeroes of a Polynomial and its Geometrical Meaning Relationship between Zeroes and Coefficients of a Polynomial Remainder Theorem Factorisation of Polynomials Algebraic Identities
Employability	Zeroes of a Polynomial and its Geometrical Meaning
Entrepreneurship	
Skill Development	Factorisation of Polynomials
Professional Ethics	Relationship between Zeroes and Coefficients of a Polynomial
Gender	
Human Values	
Environment & Sustainability	
Unit III	<b>Equations</b>

Local	<p>Pair of Linear Equations in Two Variables</p> <p>Solution of a Pair of Linear Equations (Graphical and Algebraic)</p> <p>Equations Reducible to a Pair of Linear Equations in Two Variables</p> <p>Solution of a Quadratic Equation</p> <p>Nature of Roots of a Quadratic Equation (Real and Complex)</p>
Regional	<p>Pair of Linear Equations in Two Variables</p> <p>Solution of a Pair of Linear Equations (Graphical and Algebraic)</p> <p>Equations Reducible to a Pair of Linear Equations in Two Variables</p> <p>Solution of a Quadratic Equation</p> <p>Nature of Roots of a Quadratic Equation (Real and Complex)</p>
National	<p>Pair of Linear Equations in Two Variables</p> <p>Solution of a Pair of Linear Equations (Graphical and Algebraic)</p> <p>Equations Reducible to a Pair of Linear Equations in Two Variables</p> <p>Solution of a Quadratic Equation</p> <p>Nature of Roots of a Quadratic Equation (Real and Complex)</p>
Global	<p>Pair of Linear Equations in Two Variables</p> <p>Solution of a Pair of Linear Equations (Graphical and Algebraic)</p> <p>Equations Reducible to a Pair of Linear Equations in Two Variables</p> <p>Solution of a Quadratic Equation</p> <p>Nature of Roots of a Quadratic Equation (Real and Complex)</p>
Employability	<p>Solution of a Pair of Linear Equations (Graphical and Algebraic)</p> <p>Equations Reducible to a Pair of Linear Equations in Two Variables</p>
Entrepreneurship	
Skill Development	<p>Solution of a Quadratic Equation</p>
Professional Ethics	<p>Equations Reducible to a Pair of Linear Equations in Two Variables</p>
Gender	
Human Values	
Environment & Sustainability	



Unit IV	Data Handling
Local	Collection of Data Presentation of Data Graphical Representation of Data Measures of Central Tendency (Grouped and Ungrouped Data) Data Distributions
Regional	Collection of Data Presentation of Data Graphical Representation of Data Measures of Central Tendency (Grouped and Ungrouped Data) Data Distributions
National	Collection of Data Presentation of Data Graphical Representation of Data Measures of Central Tendency (Grouped and Ungrouped Data) Data Distributions
Global	Collection of Data Presentation of Data Graphical Representation of Data Measures of Central Tendency (Grouped and Ungrouped Data) Data Distributions
Employability	Presentation of Data Graphical Representation of Data
Entrepreneurship	
Skill Development	Graphical Representation of Data
Professional Ethics	Measures of Central Tendency
Gender	
Human Values	
Environment & Sustainability	

SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED108A</b>	<b>CORE NATURAL SCIENCE II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of physics, chemistry and biology				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teachers will be able

- To understand the nature and significance of teaching natural sciences at the elementary level.
- To gain an understanding of some specific concepts of biology, physics, and chemistry.
- To develop a habit of scientific enquiry among student teachers and learn various activities through which the concepts of science can be understood.
- To critically analyze the content of natural sciences at the elementary level.

### Course Outcomes

On completion of this course, the student teachers will be able to:

**CO1** Understand the application of the concepts of acids, bases and salts.

**CO2** Understand the concept of human eye and how we see the world.

**CO3** Understand and apply the knowledge of various life processes occurring in plants and animals.

**CO4** Identify the different components of our environment, the natural resources and ways to preserve them.

**CO5** Analyze the content of natural sciences at the elementary level and its scope in day-to-day activities.

### Catalog Description

The course will help the students receive knowledge which will help them remain healthy, safe and aware of their multiple-dependencies on the environment. This course in science will help them to develop the skills that will enable them to assess whether the information they receive from the media, advertisers, journalists and politicians is reliable and evidence-based,

further the students will engage with ideas that help them to philosophically consider their own place in the Universe.

## **Course Content**

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### **Unit I:**

**16 Contact Hours**

#### **The Human Eye and Colorful World, Light and its Effects**

- Human Eye and Power of Accommodation
- Defects of Vision and their correction
- Light - Reflection and Refraction
- Refraction of Light through a Prism
- Atmospheric Refraction
- Scattering of Light and Tyndall Effect

### **Unit II:**

**10 Contact Hours**

#### **Acids, Bases and Salts, Metals and Non-metals**

- Acids, Bases and Salts: Chemical Properties, Commonality in Acid and Bases, Importance of pH in everyday life
- Metals and Non-metals: Physical and Chemical Properties
- Position of Elements in Modern Periodic Table

### **Unit III:**

**10 Contact Hours**

#### **Life Processes in Plants and Human Beings**

- Nutrition
- Digestion
- Respiration
- Transportation
- Excretion

### **Unit IV:**

**10 Contact Hours**

#### **Sustainable Management of Natural Resources**

- 5 R's to save the environment - Refuse, Reduce, Reuse, Recycle, Repurpose

- Management of Natural Resources
- Forests and Wild Life
- Water for all
- Coal, Petroleum and other Resources

### Suggested Text Books

1. NCERT Class IX Textbook, NCERT, New Delhi.
2. NCERT Class X Textbook, NCERT, New Delhi.

### Advanced Readings

1. Singh, L., & Kaur, M. Science for Tenth Class Part 1 Physics. S. Chand Publishing.
2. Singh, L., & Kaur, M. Science for Tenth Class Part 2 Chemistry. S. Chand Publishing.
3. Singh, L., & Kaur, M. Science for Tenth Class Part 3 Biology. S. Chand Publishing.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in/>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the application of the concepts of acids, bases and salts.	PO1
CO2	Understand the concept of human eye and how we see the world.	PO3

<b>CO3</b>	Understand and apply the knowledge of various life processes occurring in plants and animals.	<b>PO2,</b>
<b>CO4</b>	Identify the different components of our environment, the natural resources and ways to preserve them.	<b>PO3</b>
<b>CO5</b>	Analyze the content of natural sciences at the elementary level and its scope in day-to-day activities.	<b>PO11</b>

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self-Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research and Entrepreneurial Skills</b>
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 108A	Core Natural Sciences II	2	2	3								2	2	2	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>Programme and Course Mapping</b>														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	PS O1	PS O2	PS O3
C O 1	2													
C O 2			2											
C O 3		3												
C O 4			3											
C O 5											2			
1=lightly mapped			2= moderately mapped						3=strongly mapped					

Unit I	The Human Eye and Colorful World, Light and its Effects
Local	
Regional	
National	
Global	Light - Reflection and Refraction
Employability	
Entrepreneurship	
Skill Development	Atmospheric Refraction Scattering of Light and Tyndall Effect
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	Acids, Bases and Salts, Metals and Non-metals

Local	
Regional	
National	
Global	Metals and Non-metals
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	pH in everyday life Acids, Bases and Salts Metals and non-metals
<b>Unit III</b>	<b>Life Processes in Plants and Human Beings</b>
Local	
Regional	
National	
Global	Nutrition Digestion Respiration Transportation Excretion
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	



Human Values	
Environment & Sustainability	
Unit IV	<b>Sustainable Management of Natural Resources</b>
Local	
Regional	
National	
Global	5 R's to save the environment Management of Natural Resources Water for all
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	5 R's to save the environment Water for all Management of Natural Resources Conservation of forest and wildlife
SDG	Professional Development of Teachers (SDG 4.c) Make cities and human settlements inclusive, safe, resilient and sustainable (SDG 11) Ensure availability and sustainable management of water and sanitation for all (SDG 6)
NEP 2020	Foundational Literacy and Numeracy: An Urgent & Necessary Prerequisite to Learning (2.1-2.9) Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
POE/4 <sup>th</sup> IR	Internship Projects

<b>SEED110A</b>	<b>CORE SOCIAL SCIENCES II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Resources and Human life				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teachers will be able:

- To understand various aspects of interactions between resources and human life.
- To understand the process of social change in India
- To prepare the student for a deeper understanding of economic and social events.
- To learn about the Importance of economics development with different sectors.

### Course Outcomes:

On the completion of this course, the student-teachers will be able to:

**CO1** Understand about the human resources and its relationship with human life.

**CO2** Understand the nature of society, individuals and groups and process of social change in society.

**CO3** Critically examine the different phases of economic development of India and their Impact on different sectors.

**CO4** Learn about the features of Indian economic policy and trade in India.

**CO5** Analyse the social and economic challenges being faced by India after LPG.

### Catalog Description

Social science, in its broadest sense, is the study of society and the manner in which people behave and influence the world around us. It tells us about the world beyond our immediate experience, and can help explain how our own society It provides vital information for governmental machinery and policymakers, local authorities, non-governmental organisations and, etc.

### Course Content

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#### Unit I:

**15 Contact Hours**

#### .Contemporary India

- The resources and development,
- Water resources,
- Agriculture,
- Minerals and
- Energy resources,
- Manufacturing industries,
- Life lines of national economy.

**Unit II:**

**13 Contact Hours**

**Indian Economy**

- The sectors of economic activities,
- Comparing the three sectors, Primary, Secondary and Tertiary sectors in India,
- Divisions of sectors as organized and unorganized,
- Sectors in terms of ownership as Public and Private sectors.

**Unit III:**

**12 Contact Hours**

**Liberalization, Privatization and Globalization**

- External factors,
- Economic reforms (1990s) Structural Adjustment and Programme,
- Foreign trade and interaction of market.

**Unit: IV**

**10 Contact Hours**

**Practicum**

- Interconnections are to be drawn between various disciplines of social sciences through project work like slum setting in terms of economics, subsistence, politics, history etc.

**Suggested Text Books**

1. NCERT Books Class X Social Science

**Advanced Readings**

1. Aggarwal R.C. and Bhatnagar, Mahesh (2005). Constitutional Development and National Movement in India, S. Chand.
2. Chandra, Bipan (2009). History of Modern India, Orient Black swan.

3. Chandra, Bipan (2016). India's Struggle for Independence: 1857-1947, Penguin India.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand about the human resources and its relationship with human life.	PO10
CO2	Understand the nature of society, individuals and groups and process of social change in society.	PO4
CO3	Critically examine the different phases of economic development of India and their Impact on different sectors.	PO7
CO4	Learn about the features of Indian economic policy and trade in India.	PO3
CO5	Analyse the social and economic challenges being faced by India after LPG	PO4

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 110A	Core Social Sciences I		3	2		3		3	2			2		3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	11	O	O	O
													1	2	3
C										3					
O				3											
1							3								3
2			2												
3				4											
4															
5															

1=lightly mapped

2= moderately mapped

3=strongly mapped

<b>SEED110A</b>	<b>CORE SOCIAL SCIENCE II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Total Contact Hours</b>	50 Hours				
<b>Pre-requisites/Exposure</b>	Resources and Human life				
<b>Co-requisites</b>	-				

### Course Objectives

The course will enable the student-teachers to :-

- Interact with elementary school children.
- Explore creative ways of organizing activities for children.
- Reflect upon their experiences.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Develop understanding and importance of indoor and outdoor games.

**CO2:** Understand and recognize the standard as values in games.

**CO3** Develop the leadership quality in the student.

**CO4:** Synthesise the strategies to promote ethical standards in teaching-learning process.

### Catalogue Description

The School Exposure II Programme shall be carried out during the second semester in local/nearby school or schools. For this, the student may be placed in regional language medium schools; and the rest may be placed in Government, Private, Urban, Rural and Schools for challenged learners. A student teacher needs to visit at least two types of schools: in the first wee to one type of school; and in the second week to another type of school. A brief orientation programme can be arranged before sending the student-teachers to schools to acquaint them with the objectives and modalities of such programme. During this programme, the student-teachers will undertake the different activities in different schools, ensuring maximum participation of the students in all the activities

### Course Content

Student-teachers will undertake the following activities and prepare a report of the same.

Activity 1: Planning and executing an indoor game

Activity 2: Planning and executing morning assembly

Activity 3: Spot games like spelling bee / word formation

Activity4: Organizing a game with a set of students from another class

Activity 5: Organizing a competition on extemporary speech or Just a minute games

Activity 6: Visiting the garden and nurturing the plants and cleaning the area.

Activity 7: Observing a demo class and giving report

Activity 8: Solving a problem related to teaching-learning process.

**Modes of Evaluation:** Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop understanding and importance of indoor and outdoor games.	PO7
CO2	Understand and recognize the standard as values in games.	PO4
CO3	Develop the leadership quality in the student.	PO7
CO4	Synthesise the strategies to promote ethical standards in teaching-learning process	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED112A	School Exposure-II			3	3	2		3		2				3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping																			
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	3											2							
CO2		2		3										3					
CO3						3									2				
CO4										3							3		
<b>1=lightly mapped                      2= moderately mapped                      3=strongly mapped</b>																			

<b>Unit I</b>	<b>Activity 1: Planning and executing an indoor game</b> <b>Activity 2: Planning and executing morning assembly</b>
<b>Local</b>	<b>Planning and executing an indoor game</b>
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	.
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<b>Planning and executing an indoor game</b>



<b>Professional Ethics</b>	Planning and executing morning assembly <b>Planning and executing morning assembly</b>
<b>Gender</b>	
<b>Human Values</b>	<b>Planning and executing an indoor game</b> <b>Planning and executing morning assembly</b>
<b>Environment &amp; Sustainability</b>	
<b>Unit II</b>	<b>Activity 3: Spot games like spelling bee / word formation</b> <b>Activity4: Organizing a game with a set of students from another class</b>
<b>Local</b>	<b>Spot games like spelling bee / word formation</b>
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	<b>Organizing a game with a set of students from another class</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<b>Spot games like spelling bee / word formation</b>
<b>Professional Ethics</b>	<b>Organizing a game with a set of students from another class</b>
<b>Gender</b>	
<b>Human Values</b>	<b>Organizing a game with a set of students from another class</b>
<b>Environment &amp; Sustainability</b>	
<b>Unit III</b>	<b>Activity 5: Organizing a competition on extemporary speech or Just a minute games</b> <b>Activity 6: Visiting the garden and nurturing the plants and cleaning the area</b>
<b>Local</b>	<b>Organizing a competition on extemporary speech or Just a minute games</b>
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	

<b>Employability</b>	<b>Organizing a competition on extemporary speech or Just a minute games</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<b>Organizing a competition on extemporary speech or Just a minute games,Visiting the garden and nurturing the plants and cleaning the area</b>
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	<b>Visiting the garden and nurturing the plants and cleaning the area</b>
<b>Unit IV</b>	<b>Activity 7: Observing a demo class and giving report Activity 8: Solving a problem related to teaching-learning process</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	<b>Observing a demo class and giving report Solving a problem related to teaching-learning process</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<b>Observing a demo class and giving report</b>
<b>Professional Ethics</b>	<b>Observing a demo class and giving report Solving a problem related to teaching-learning process</b>
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>SDG</b>	<b>Professional Development of Teachers</b>
<b>NEP 2020</b>	<b>Equitable and Inclusive Education</b>
<b>POE/4<sup>th</sup> IR</b>	<b>Skill Development</b>

## SEMESTER III

<b>SEED213A</b>	<b>COGNITION AND LEARNING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic understanding about child behaviour				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Conceptualise the terminologies used in the course.
- Develop basic knowledge of cognitive psychology.
- Develop an ability to differentiate cognition works from attention, sensation, perception, action, language processes, problem solving and thinking to learning and memory.

### Course Outcomes

On the completion of this course, the student-teachers will be able to:

**CO1** Understand and identify the individual and cultural differences among the people.

**CO2** Understand the nature of a child through basic processes such as memory, and knowledge.

**CO3** Critically examine the different theories given by different psychologists and their Impact on different child's growth and development.

**CO4** Understand learning as divergent process.

**CO5** Analyse the personal and environmental factors contributing to learning

### Catalog Description

Cognition is the basis of educational and allied activities in a student life. Yet, not enough settings, including educational settings, consciously apply cognitive principles. The value of including cognition in the education of all beings is clear, developing thinking and knowledge. It is of particular importance to incorporate cognitive theory into the training of teachers to

further application of cognition in the instruction of all students. This course will focus on the principles of cognition and learning and factors responsible for the development of understanding of cognition and critical thinking in.

### **Course Content**

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#### **Unit I: 08 Contact Hours**

- Cognition and approaches to cognition; individual and cultural differences
- Elementary cognitive processes - sensation, perception and attention.

#### **Unit II: 12 Contact Hours**

- How children learn and remember: basic processes
- strategies
- knowledge
- metamemory; current issues.
- The developing mind: concepts and concept formation
- developing concepts of time, space, number, relationship etc.

#### **Unit III: 10 Contact Hours**

- Child as a problem solver: reasoning and judgement
- Choice - Piagetian and Neo-Piagetian perspectives
- nurturing creativity and developing problem solvings kills.

#### **Unit: IV 10 Contact Hours**

- Alternative conceptions of learning: Factors contributing to learning - personal and environmental
- Child's personal and social world - cognition and emotion.

### **Suggested Text Books**

1. Kundu, C.L. and Tutoo, D.N. (2000). Educational Psychology. New Delhi: Sterling Publishers Pvt. Ltd.
2. Mangal, S. K (2016) Childhood and Growing Up, Tandon Publications.

### **Advanced Readings**

1. Aggarwal J.C. (2014). Essentials of educational technology Chandra, Bipan (2009). History of Modern India, Orient Blackswan.
2. Brown, J. S., Collins, A and Duguid, P. Situated (1989). Cognition and the Culture of Learning, Educational Researcher, 18: 32-42

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in).

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand and identify the individual and cultural differences among the people.	PO6
CO2	Understand the nature of a child through basic processes such as memory, and knowledge.	PO10
CO3	Critically examine the different theories given by different psychologists and their Impact on different child's growth and development.	PO11
CO4	Understand learning as divergent process.	PO3
CO5	Analyse the personal and environmental factors contributing to learning	PO6

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 213A	Cognition and Learning			2		3	3				2	2		3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CO 1						3								
CO 2										2			3	
CO 3											2			
CO 4			2											
CO 5						3								
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	
Local	
Regional	
National	
Global	
Employability	Cognition and approaches to cognition; individual and cultural differences metamemory; current issues.
Entrepreneurship	
Skill Development	Elementary cognitive processes - sensation, perception and attention.
Professional Ethics	Elementary cognitive processes - sensation, perception and attention.
Gender	
Human Values	individual and cultural differences
Environment & Sustainability	
Unit II	
Local	knowledge The developing mind: concepts and concept formation
Regional	
National	
Global	
Employability	How children learn and remember: basic processes
Entrepreneurship	
Skill Development	How children learn and remember: basic processes strategies The developing mind: concepts and concept formation
Professional Ethics	How children learn and remember: basic processes strategies knowledge developing concepts of time, space, number, relationship etc.
Gender	developing concepts of time, space, number, relationship etc.
Human Values	developing concepts of time, space, number, relationship etc.
Environment & Sustainability	developing concepts of time, space, number, relationship etc.
Unit III	
Local	
Regional	
National	
Global	Choice - Piagetian and Neo-Piagetian perspectives

Employability	Child as a problem solver: reasoning and judgement nurturing creativity and developing problem solvings kills.
Entrepreneurship	
Skill Development	Child as a problem solver: reasoning and judgement nurturing creativity and developing problem solvings kills.
Professional Ethics	Child as a problem solver: reasoning and judgement
Gender	
Human Values	
Environment & Sustainability	nurturing creativity and developing problem solvings kills.
Unit IV	
Local	
Regional	
National	
Global	Child's personal and social word - cognition and emotion.
Employability	Alternative conceptions of learning: Factors contributing to learning - personal and environmental
Entrepreneurship	
Skill Development	Child's personal and social word - cognition and emotion.
Professional Ethics	
Gender	Child's personal and social word - cognition and emotion.
Human Values	Alternative conceptions of learning: Factors contributing to learning - personal and environmental
Environment & Sustainability	Alternative conceptions of learning: Factors contributing to learning - personal and environmental
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development



<b>SEED215A</b>	<b>LANGUAGE ACQUISITION</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Nature of Language Learning				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to -

- Define and elucidate the concept, nature & structure of language.
- Describe language and cognition.
- Explain theories of language acquisition and their limitations.
- Explain biology of language acquisition.
- Appreciate the relationship between language, mind and society.
- Acquaint them with the process of language acquisition and learning.
- Develop sensitivity and competency toward catering to a multilingual audience in school.

### Course Outcomes

On the completion of this course, the student-teachers will be able to:

**CO1.** Assess different cognitive prerequisites of language acquisition.

**CO2.** Discover various techniques with respect to stages of language development.

**CO3.** Relate the process of language acquisition and learning in child language.

**CO4.** Identify the various language disorders during the language development of the students.

### Catalogue Description

For quite a long time, language teaching did not regard learning of language from the learners' point of view. It was assumed that the teacher teaches, and the learner learns. Whatever the teacher 'gives' to the learner, the learner takes in, and then produces it as language output. It was largely during the twentieth century, with the growth of thinking in areas of psychology, linguistics and also the biological sciences, those insights into language learning grew to create a progressively better understanding both of the nature of language itself and the nature of learning.

This course will be an introduction to major aspects of second language acquisition theories. The Course topics cover various factors that influence the successful acquisition of another language. The focus will be on linguistic, cognitive, personality and socio-cultural features of

second language acquisition. You are encouraged to critically evaluate, reflect and build upon strategies that contribute positively to second language acquisition.

## **Course Content**

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### **Unit I**

**15 Contact Hours**

#### **Language and Cognition**

- Cognitive Prerequisites for Language Acquisition
- Biological Foundation
- Language and Thought
- Innate Hypotheses
- Cognitive social and linguistic development
- Piagetian and Vygotsky Perspectives

### **Unit II:**

**15 Contact Hours**

#### **Language Development**

- The Earliest Stage and the Babbling Period
- Stages of Language Development
- The Role of Mothers and Caretaker Speech
  - Phonology
  - Morphology
  - Syntax and Semantics
  - Sociolinguistic Aspects

### **Unit III**

**15 Contact Hours**

#### **Comprehension, Production & Formal means of Language Acquisition**

- Perceptual Strategies
- Perception of Speech and Comprehension
- Stages of Language Acquisition

- Child Language vs. Language Acquisition
- First Language Acquisition and Multilingualism
- Process of Language Acquisition
  - Early Language Acquisition
  - Later Language Acquisition
- Error Analysis
- The Role of Errors in Language Production

## **Unit IV**

**10 Contact Hours**

### **Language Acquisition Disorder**

- Concept of Language Acquisition Disorder: Meaning & Nature
- Linguistic Principles
- Learning about language by studying language disorders
- Brain Structure and Functions
- Inhibitions
- Stuttering
- Aphasia
- Language among the Mentally Disabled

### **Practical**

- Make a presentation on Language Disorders with the brain structures and its functions.
- Observe the children of different age in your environment for one month and write your analysis on their language acquisition.
- Record the conversation of the family members of three generations. Find out the variations in their language.
- If you have any contact with Mentally Disabled Child. Observe him closely and write your analysis on his language problem.

### **Suggested Text Books**

1. Akmajian, A., Demers, R. A., & Harnish, R. M. (1979). *Linguistics, an Introduction to Language and Communication. Cambridge University Press, Cambridge.*
2. Yule, G. (2006). *The study of language. Cambridge University Press, UK*

### References Books

1. Agnihotri, R.K. & Khanna, A.L. (Eds.) (1994). *Second Language Acquisition. Sage Publications, New Delhi.*
2. Agnihotri, R.K. (1999). *Bachchon ki bhashaa seekhne ki kshamata, Bhag 1 or 2. Shakshik Sandarbh. Bhopal: Eklavya.*
3. Agnihotri, R.K. (2007). *Hindi: An Essential Grammar. Routledge, London.*
4. Agnihotri, R.K. (2007). *Towards a Pedagogical Paradigm rooted in Multilinguality. International Multilingual Research Journal, Vol. (2) 1-10.*
5. Agnihotri, R.K. and Vandhopadhyay, P.K. (Eds.) (2000). *Bhasha, Bhubhashita or Hindi: Ekanth Samvaad. Shilalekh, Delhi.*
6. Gaskell, G. et al. (2007) *The Oxford Handbook of Psycholinguistics. Oxford University Press, London.*
7. NCERT (2005). *National Curriculum Framework (NCF). NCERT, New Delhi.*
8. Reading Development Cell, NCERT (2008). *Reading for Meaning. NCERT, New Delhi.*

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Assess different cognitive prerequisites of language acquisition.	<b>PO9</b>
<b>CO2</b>	Discover various techniques with respect to stages of language development.	<b>PO1</b>
<b>CO3</b>	Relate the process of language acquisition and learning in child language.	<b>PO2</b>
<b>CO4</b>	Identify the various language disorders during the language development of the students.	<b>PO6</b>

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self -Development and Community</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental Tasks</b>	<b>Diverse Needs:</b>	<b>Research and Entrepreneurial Skills:</b>
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED215A	Language Acquisition	3	3				3			3				3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>Programme and Course Mapping</b>														
<b>C O</b>	<b>P O 1</b>	<b>P O 2</b>	<b>P O 3</b>	<b>P O 4</b>	<b>P O 5</b>	<b>P O 6</b>	<b>P O 7</b>	<b>P O 8</b>	<b>P O 9</b>	<b>P O 10</b>	<b>P O 11</b>	<b>P S O 1</b>	<b>P S O 2</b>	<b>P S O 3</b>
<b>C O 1</b>									3					
<b>C O 2</b>	3												3	
<b>C O 3</b>		3												
<b>C O 4</b>						3								
1=lightly mapped					2= moderately mapped					3=strongly mapped				

<b>Unit I</b>	<b>Language and Cognition</b>
Local	<ul style="list-style-type: none"> <li>• Cognitive Prerequisites for Language Acquisition</li> <li>• Biological Foundation</li> <li>• Language and Thought</li> <li>• Innate Hypotheses</li> <li>• Cognitive social and linguistic development</li> <li>• Piagetian and Vygotsky Perspectives</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Cognitive Prerequisites for Language Acquisition</li> <li>• Biological Foundation</li> <li>• Language and Thought</li> <li>• Innate Hypotheses</li> <li>• Cognitive, social and linguistic development</li> <li>• Piagetian and Vygotsky Perspectives</li> </ul>
National	<ul style="list-style-type: none"> <li>• Cognitive Prerequisites for Language Acquisition</li> <li>• Biological Foundation</li> <li>• Language and Thought</li> <li>• Innate Hypotheses</li> <li>• Cognitive, social and linguistic development</li> <li>• Piagetian and Vygotsky Perspectives</li> </ul>

Global	<ul style="list-style-type: none"> <li>• Cognitive Prerequisites for Language Acquisition</li> <li>• Biological Foundation</li> <li>• Language and Thought</li> <li>• Innate Hypotheses</li> <li>• Cognitive, social and linguistic development</li> <li>• Piagetian and Vygotsky Perspectives</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Piagetian and Vygotsky Perspectives</li> <li>• Cognitive Prerequisites for Language Acquisition</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Piagetian and Vygotsky Perspectives</li> <li>• Cognitive Prerequisites for Language Acquisition</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Piagetian and Vygotsky Perspectives</li> <li>• Cognitive Prerequisites for Language Acquisition</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
Unit II	<b>Language Development</b>
Local	<ul style="list-style-type: none"> <li>• The Earliest Stage and the Babbling Period</li> <li>• Stages of Language Development</li> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul> </li> </ul>
Regional	<ul style="list-style-type: none"> <li>• The Earliest Stage and the Babbling Period</li> <li>• Stages of Language Development</li> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>- Sociolinguistic Aspects</li> </ul>
National	<ul style="list-style-type: none"> <li>• The Earliest Stage and the Babbling Period</li> <li>• Stages of Language Development</li> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul> </li> </ul>
Global	<ul style="list-style-type: none"> <li>• The Earliest Stage and the Babbling Period</li> <li>• Stages of Language Development</li> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul> </li> </ul>
Employability	<ul style="list-style-type: none"> <li>• The Earliest Stage and the Babbling Period</li> <li>• Stages of Language Development</li> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul> </li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> </ul> </li> </ul>



	<ul style="list-style-type: none"> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul> </li> </ul>
Gender	
Human Values	<ul style="list-style-type: none"> <li>• The Role of Mothers and Caretaker Speech <ul style="list-style-type: none"> <li>- Phonology</li> <li>- Morphology</li> <li>- Syntax and Semantics</li> <li>- Sociolinguistic Aspects</li> </ul> </li> </ul>
Environment & Sustainability	
<b>Unit III</b>	<b>Comprehension, Production &amp; Formal means of Language Acquisition</b>
Local	<ul style="list-style-type: none"> <li>• Perceptual Strategies</li> <li>• Perception of Speech and Comprehension</li> <li>• Stages of Language Acquisition</li> <li>• Child Language vs. Language Acquisition</li> <li>• First Language Acquisition and Multilingualism</li> <li>• Process of Language Acquisition <ul style="list-style-type: none"> <li>- Early Language Acquisition</li> <li>- Later Language Acquisition</li> </ul> </li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Perceptual Strategies</li> <li>• Perception of Speech and Comprehension</li> <li>• Stages of Language Acquisition</li> <li>• Child Language vs. Language Acquisition</li> </ul>

	<ul style="list-style-type: none"> <li>• First Language Acquisition and Multilingualism</li> <li>• Process of Language Acquisition <ul style="list-style-type: none"> <li>- Early Language Acquisition</li> <li>- Later Language Acquisition</li> </ul> </li> </ul>
National	<ul style="list-style-type: none"> <li>• Perceptual Strategies</li> <li>• Perception of Speech and Comprehension</li> <li>• Stages of Language Acquisition</li> <li>• Child Language vs. Language Acquisition</li> <li>• First Language Acquisition and Multilingualism</li> <li>• Process of Language Acquisition <ul style="list-style-type: none"> <li>- Early Language Acquisition</li> <li>- Later Language Acquisition</li> </ul> </li> </ul>
Global	<ul style="list-style-type: none"> <li>• Perceptual Strategies</li> <li>• Perception of Speech and Comprehension</li> <li>• Stages of Language Acquisition</li> <li>• Child Language vs. Language Acquisition</li> <li>• First Language Acquisition and Multilingualism</li> <li>• Process of Language Acquisition <ul style="list-style-type: none"> <li>- Early Language Acquisition</li> <li>- Later Language Acquisition</li> </ul> </li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Error Analysis</li> <li>• The Role of Errors in Language Production</li> <li>• Child Language vs. Language Acquisition</li> <li>• First Language Acquisition and Multilingualism</li> </ul>
Entrepreneurship	-
Skill Development	<ul style="list-style-type: none"> <li>• Error Analysis</li> <li>• The Role of Errors in Language Production</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Perceptual Strategies</li> <li>• Perception of Speech and Comprehension</li> </ul>

	<ul style="list-style-type: none"> <li>• Stages of Language Acquisition</li> <li>• Child Language vs. Language Acquisition</li> <li>• First Language Acquisition and Multilingualism</li> </ul>
Gender	-
Human Values	<ul style="list-style-type: none"> <li>• Perception of Speech and Comprehension</li> </ul>
Environment & Sustainability	
Unit IV	<b>Language Acquisition Disorder</b>
Local	<ul style="list-style-type: none"> <li>• Concept of Language Acquisition Disorder: Meaning &amp; Nature</li> <li>• Linguistic Principles</li> <li>• Learning about language by studying language disorders</li> <li>• Brain Structure and Functions</li> <li>• Inhibitions</li> <li>• Stuttering</li> <li>• Aphasia</li> <li>• Language among the Mentally Disabled</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Concept of Language Acquisition Disorder: Meaning &amp; Nature</li> <li>• Linguistic Principles</li> <li>• Learning about language by studying language disorders</li> <li>• Brain Structure and Functions</li> <li>• Inhibitions</li> <li>• Stuttering</li> <li>• Aphasia</li> <li>• Language among the Mentally Disabled</li> </ul>
National	<ul style="list-style-type: none"> <li>• Concept of Language Acquisition Disorder: Meaning &amp; Nature</li> <li>• Linguistic Principles</li> <li>• Learning about language by studying language disorders</li> <li>• Brain Structure and Functions</li> <li>• Inhibitions</li> <li>• Stuttering</li> <li>• Aphasia</li> <li>• Language among the Mentally Disabled</li> </ul>

Global	<ul style="list-style-type: none"> <li>• Concept of Language Acquisition Disorder: Meaning &amp; Nature</li> <li>• Linguistic Principles</li> <li>• Learning about language by studying language disorders</li> <li>• Brain Structure and Functions</li> <li>• Inhibitions</li> <li>• Stuttering</li> <li>• Aphasia</li> <li>• Language among the Mentally Disabled</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Concept of Language Acquisition Disorder: Meaning &amp; Nature</li> <li>• Linguistic Principles</li> <li>• Learning about language by studying language disorders</li> <li>• Brain Structure and Functions</li> <li>• Inhibitions</li> <li>• Stuttering</li> <li>• Aphasia</li> <li>• Language among the Mentally Disabled</li> </ul>
Entrepreneurship	-
Skill Development	<ul style="list-style-type: none"> <li>• Concept of Language Acquisition Disorder: Meaning &amp; Nature</li> <li>• Linguistic Principles</li> <li>• Learning about language by studying language disorders</li> <li>• Brain Structure and Functions</li> <li>• Inhibitions</li> <li>• Stuttering</li> <li>• Aphasia</li> <li>• Language among the Mentally Disabled</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Learning about language by studying language disorders</li> <li>• Linguistic Principles</li> <li>• Language among the Mentally Disabled</li> </ul>
Gender	
Human Values	<ul style="list-style-type: none"> <li>• Linguistic Principles</li> <li>• Language among the Mentally Disabled</li> </ul>
Environment & Sustainability	
SDG	<p>By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (<b>SDG 4.1</b>)</p> <p>Quality Primary Education for all (<b>SDG 4.1</b>) (<b>Students will get the exposure on how the students acquire and learn the different languages at this stage through observing children in neighbourhood</b>)</p> <p><b>Observing Children through the lense of Language Development-</b></p>

	Development of Observing Schedule where children in neighbourhood will be observed in the process of acquiring the language of the primary level (collaborate with other Practical course -Observing Children)
NEP 2020	<p>1. Foundational Literacy and Numeracy: An Urgent &amp; necessary prerequisite to Learning (NEP 2.1-2.9) 2. Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (NEP 4.1 - 4.46). 3. Teacher Education (NEP 15.1- 15.11).</p> <p>2. Special attention will be given to employing local teachers or those with familiarity with local languages. (NEP 2.3). (- <b>Methodology of Error Analysis will be taught to the students where students will able to do the comparative analysis between two mother tongue and Second Language</b>) 3. Children pick up languages extremely quickly between the ages of 2 and 8 and that multilingualism has great cognitive benefits to young students, children will be exposed to different languages early on (but with a particular emphasis on the mother tongue), starting from the Foundational Stage onwards. (NEP 4.12 )</p> <p><b>4.(Students will develop the insight about the development of language through observing children in his neighbourhood)</b></p> <p><b>Students will discuss the various teaching methods to remove any barriers to learning and give all students equal opportunities to succeed (NEP 15.4)</b></p>
POE/4 <sup>th</sup> IR	4. Technical skills that match industry needs (Students will record the conversation of observing children and map the sounds through the PRAAT Software)

<b>SEED217A</b>	<b>OBSERVING CHILDREN</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Awareness of self and surroundings				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Acquire an understanding of children’s development within given socio-cultural, political, economic, familial and personal context.
- Establish links between developmental constructs and principles, and psycho-socio realities of growing children.
- Develop skills in observing and interviewing children, recording and reflective analysis.
- Understand the nature of children’s play at different age- levels
- Gain insight into the various dimensions of children’s play, such as comprehension of rules, rulemaking, development of social roles and skills, relationship between language and play, issues of gender
- Understand the impact of dynamic social influences arising out of varied backgrounds-upon children and their education
- Understand the positive impacts on the students from the teacher and peer interaction

### Course Outcomes

On the completion of course student-teachers will be able to:

**CO1.** Develop observation skills in understanding the child’s behaviour.

**CO2.** Choose techniques to collect data for different observation situation.

**CO3.** Recognize different observation rules and assessments for overall development of the child.

**Assignments:** -Students are expected to undertake three assignments over the semester. Each assignment is designed to give very specific opportunities of generating knowledge from the field, testing, given theories and developing skills of interviewing children.

### **Assignment1: Children at Play**

#### **Catalogue Description**

Observation is the best way to assess children's development. Different types of observation records, purposes for observations, what to look for when observing, how to plan observation events, and ways to use observation is the basis to the process of observing children. This course includes observation assignments that must be completed to get credit for this course. Ideally, the student is expected to observe children in different settings. The students can observe children in their school settings, playgrounds, neighborhood, basti/ slums or even the children of their relatives. This will help the students to identify the basic rules of observation; name different types of observation records; and recognize how different observation assessments should be used in overall understanding of child's growth and development.

#### **Course Content**

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#### **Tasks and Time Frame**

Students are required to observe a minimum of 4-5 children in each of the following age group: 3-5 years and 6-8 year. Children can be observed in naturalistic settings such as a playground or park in the neighborhood. Observation at each given time would be for about 1 hour, adding up to a total of 10 hours of each group .The hours of Observation may be spread over a period of 5-6 weeks.

#### **Record Keeping**

Students are required to keep detailed records of their observations. Students must learn to discuss the difference between raw data and the observations and interpretations thereof; it is expected that discussion amongst peer group and with faculty supervisor during the time allotted with this, would enable students to evolve frameworks of analyzing the observation

data. Supervisor will facilitate the process of analyzing and interaction and help establish link with Theory.

## **Assignment 2: A day in the Life of Children.**

### **Task and Time Frame**

Students are required to undertake observations of individual children and their families in three diverse settings: a neighborhood children, a child from a 'Basti' and Child from affluent home. The neighborhood child essentially refers to a child from a middle class socio-economic background. This category must not overlap with any of other categories. Each of Three setting will require a distinct methodological approach. However, common guidelines which can serve both as an observational schedule and an interview schedule can be used. Such a guidelines would use following as a framework for gathering data: family, Physical space: Material Resources; Health and Nutrition; School Related Factors; Human Support Strictures; family Interactions.

### **The Neighborhood Child**

Students will be expected to observe a child within the home once on a school day and once on a school holiday. Observations should begin from the time a child awakes in the morning and continue till she retired for the day. Observation may include to talking to parents only to fill in gaps. Observation may be conducted unobtrusively and without any attempt to intrude into the privacy of the family.

### **The Child from a Basti**

The method to know a Basti child may require a part from observations, semi structured interviews with parents and community, including teachers. Interview with Basti children can be arranged through non-governmental organisation workings in the slam and resettlement colonies. An advantages in working through NGO's is the necessary orientation that the students can receive in conducting observations and interviews with sensitivity And responsibility.

### **The Child from an Affluent Home**



Using the guidelines mentioned above, individual children from affluent homes may be interviewed. The interviews could be arranged through schools which specifically cater to the affluent sections of society. Individual children could be interviewed within the school.

### **Record Keeping**

Students are required to keep records of the data collected through observations and interviews. Based on the discussions with the peer group and faculty members, students will evolve a framework of analysis, drawing upon socio-psychological principles.

### **Assignment 3: Child in the Classroom**

#### **Task and Time Frame**

Teacher trainees will be observing four categories of children: 1. High academic achievers 2: Students who have lagged academically 3: Children with special needs. Their attitude, responses, behavior etc. are observed and the observations are recorded.

### **Record Keeping**

Students are required to keep records of the data collected through observations and interviews. Based on the discussions with the peer group and faculty members, students will evolve a framework of analysis, drawing upon socio-psychological principles.

### **Suggested Text Books**

1. Bruce, T. (2014). *Observing Young Children. Sage Publications.*
2. IGNOU (2007). *Tools and Techniques of Data Collection in MES-016- Educational Research: Research Design. New Delhi: School of Education, IGNOU.*
3. Mishra, A. (2007). *Everyday Life in a Slum in Delhi.* In D.K. Behera (Ed.) *Childhood in South Asia. New Delhi: Pearson Education India*

### **Advanced Readings**

1. Adler, P.A. & Adler, P. (1994). *Observational Technique.* In N.K. Denzin & Y S.Lincoln (Eds.)
2. Berk, Laura (1996). *Child development. Prentice Hall, New Delhi.*
3. Bettelheim, Bruno (1987). *The Importance of Play. The Atlantic Monthly, March.*

4. Erikson, Eric H. (1972). *Play and Development*. W.W. Norton, New York.
5. Garvey, C. *Play* (1990). Harvard University Press, Cambridge.
6. Vygotsky, Lev, S. (1980). *Mind in Society*. Harvard University Press, Cambridge, Chapter 7: *The Role of Play*.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	External Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Develop observation skills in understanding the child's behaviour.	<b>PO3</b>
<b>CO2</b>	Choose techniques to collect data for different observation situation.	<b>PO9</b>
<b>CO3</b>	Recognize different observation rules and assessments for overall development of the child.	<b>PO1</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 217A	Observing Children	3		3						3				3	2

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S	
	1	2	3	4	5	6	7	8	9	10	11	O	O	O	
C			3												
O									3				3		
C	3														
O															
O															
	1=lightly mapped					2= moderately mapped					3=strongly mapped				

Unit I	<b>Assignment1: Children at Play</b>
Local	Students are required to keep detailed records of their observations
Regional	Students must learn to discuss the difference between raw data and the observations and interpretations thereof; it is expected that discussion amongst peer group and with faculty supervisor during the time allotted with this, would enable students to evolve frameworks of analyzing the observation data.
National	Students are required to keep detailed records of their observations. Students must learn to discuss the difference between raw data and the observations and interpretations thereof; it is expected that discussion amongst peer group and with faculty supervisor during the time allotted with this, would enable students to evolve frameworks of analyzing the observation data. Supervisor will facilitate the process of analyzing and interaction and help establish link with Theory.
Global	
Employability	Students must learn to discuss the difference between raw data and the observations and interpretations thereof; it is expected that discussion amongst peer group and with faculty supervisor during the time allotted with this, would enable students to evolve frameworks of analyzing the observation data.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	<b>Assignment 2: A day in the Life of Children.</b>
Local	Students are required to undertake observations of individual children and their families in three diverse settings: a neighborhood children, a child from a 'Basti' and Child from affluent home.
Regional	observational schedule and an interview schedule can be used.
National	The neighborhood child essentially refers to a child from a middle class socio-economic background. This category must not overlap with any of other categories. Each of Three setting will require a distinct

	methodological approach. However, common guidelines which can serve both as an observational schedule and an interview schedule can be used. Such a guidelines would use following as a framework for gathering data: family, Physical space: Material Resources; Health and Nutrition; School Related Factors; Human Support Strictures; family IntBILeractions.
Global	
Employability	<p>framework for gathering data: family, Physical space: Material Resources; Health and Nutrition; School Related Factors; Human Support Strictures; family IntBILeractions.</p> <p>Observation may include to talking to parents only to fill in gaps. Observation may be conducted unobtrusively and without any attempt to intrude into the privacy of the family.</p>
Entrepreneurship	
Skill Development	observational schedule and an interview schedule can be used.
Professional Ethics	framework for gathering data: family, Physical space: Material Resources; Health and Nutrition; School Related Factors; Human Support Strictures; family IntBILeractions.
Gender	
Human Values	
Environment & Sustainability	
Unit III	<b>Assignment 3: Child in the Classroom</b>
Local	Based on the discussions with the peer group and faculty members, students will evolve a framework of analysis, drawing upon socio-psychological principle
Regional	
National	Students are required to keeping records of the data collected through observations and interviews. Based on the discussions with the peer

	group and faculty members, students will evolve a framework of analysis, drawing upon socio-psychological principles.
Global	
Employability	Teacher trainees will be observing four categories of children: 1. High academic achievers 2: Students who have lagged academically 3: Children with special needs. Their attitude, responses, behavior etc. are observed and the observations are recorded.
Entrepreneurship	
Skill Development	Based on the discussions with the peer group and faculty members, students will evolve a framework of analysis, drawing upon socio-psychological principle
Professional Ethics	Based on the discussions with the peer group and faculty members, students will evolve a framework of analysis, drawing upon socio-psychological principle
Gender	
Human Values	
Environment & Sustainability	

<b>SEED219A</b>	<b>SELF-DEVELOPMENT WORKSHOP</b>	L	T	P	C
<b>Version 2.0</b>		0	0	2	1
<b>Pre-requisites/Exposure</b>	Self-Values and Development				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Explore the self for greater awareness, personal growth and reflective thinking.
- Develop insight into the various dimensions of the self-perceptions and assumptions about and attitude towards: people, children in particular; and social issues.
- Learn to be self-critical, questioning and reflective about our thoughts, actions and reactions.
- Develop insight into children's ways of thinking and learning and to explore ways to bridge the gap between adult and child.
- Develop skills for effective communication and the capacity to listen, empathies and relate

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Participate in various co-curricular activities leading to their multifaceted personality development.

**CO2:** Recognition and understanding of self and emotions.

**CO3:** Explain stress, positive attitude and its effect of relationship management.

**CO4:** Learn about their strength and weaknesses.

**CO5:** Expand their vocabulary in Hindi and English language to improve their communication skill in the receptive skills.

### Catalogue Description

As an individual in society one has different identities – gender, relational, cultural – and it is important to address one's implicit beliefs, stereotypes and prejudices resulting from these identities. It is important for the student-teachers to be aware of their identities and the

political, historical, and social forces that shape them. The course will make use of personal narratives, life stories, group interactions, film reviews – to help explore one’s dreams, aspirations, concerns, through varied forms of self-expression, including poetry and humour, creative movement, aesthetic representations, etc. The course will address aspects of development of the inner self and the professional identity of a teacher. This shall enable student-teachers to develop sensibilities, dispositions, and skills that will later help them in facilitating the personal growth of their own students while they teach. It is important for student-teachers to develop social relational sensitivity and effective communication skills, including the ability to listen and observe.

## **Course Content**

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### **Workshops**

A series of workshops should be conducted over a year, under the supervision and guidance of professionals, trained for the purpose. Broadly, these workshops should address the following:

#### **1. Exploring the Self**

**5 Contact Hours**

Ability to listen and observe; dreams and fantasy; personal and professional aspirations; factors influencing identity formation; views on gender issues; personal; families and social conflicts; understanding social issues; projecting and building images; exploring ethics values ;developing empathy

#### **2. Understanding Our Own Childhood**

**5 Contact Hours**

Articulating childhood memories and experiences-fantasy, longing, hurt, joy, recognition; major influences in childhood; visualizing the limitations and potential of one’s own childhood; listening to and empathizing with other childhood experiences, discovering similarity in needs and feelings , discovering differences in nature and experiences; getting in touch with childhood feelings.

#### **3. Fear and Trust**

**5 Contact Hours**

Observing and understanding feelings of fear and trust in the past and present; the influence of such feelings in personal and social attitude; analysis of the repercussion of fear and trust in school; observing the role of fear and trust in stifling or facilitating creativity and learning exploring alternative interventions.

#### **4. Communication**

**05 Contact Hours**



Observing the role of listening, attention and empathy; observing and analyzing information gathering and exchange; exploring personal and social relationship; analyzing the role of the media; understanding communication in friendship, in the family, in the community; exploring the role of teacher as a communicator, in establishing a relationship with the child.

**Time Frame**

Each student will be required to attend all workshops over one semester.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Participate in various co-curricular activities leading to their multifaceted personality development.	<b>PO7</b>
<b>CO2</b>	Recognition and understanding of self and emotions.	<b>PO7</b>
<b>CO3</b>	Explain stress, positive attitude and its effect of relationship management.	<b>PO6</b>
<b>CO4</b>	Learn about their strength and weaknesses.	<b>PO7</b>
<b>CO5</b>	Expand their vocabulary in Hindi and English language to improve their communication skill in the receptive skills.	<b>PO2</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED219A	Self-Development workshop			3	3	3		3					3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1							3							
CO2							3						3	
CO3														
CO4							3							
CO5														
1=lightly mapped			2= moderately mapped						3=strongly mapped					

<b>Unit I</b>	<b>Exploring the Self</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	exploring ethics values ;developing empathy, personal and professionals aspirations
<b>Gender</b>	views on gender issues
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	personal; families and social conflicts; understanding social issues
<b>Unit II</b>	<b>Understanding Our Own Childhood</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	
<b>Gender</b>	Articulating childhood memories and experiences-fantasy, longing, hurt, joy, recognition; major influences in childhood
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	discovering differences in nature and experiences
<b>Unit III</b>	<b>Fear and Trust</b>
<b>Local</b>	

<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	
<b>Entrepreneurship</b>	Observing and understanding feelings of fear and trust in the past and present
<b>Skill Development</b>	facilitating creativity and learning exploring alternative interventions
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>Unit IV</b>	<b>Communication</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	exploring personal and social relationship; analyzing the role of the media; understanding communication in friendship, in the family, in the community
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	exploring the role of teacher as a communicator, in establishing a relationship with the child

<b>SEED221A</b>	<b>SERVICE LEARNING</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		0	0	2	1
<b>Pre-requisites/Exposure</b>	Awareness about surroundings				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to -

- Practice skills and test classroom knowledge through related service experiences in the local community.
- Provide needed assistance to community agencies and to the people served by the agencies.
- Provide leadership training and development opportunities for the Service Learning and encourage future community work and social service career exploration.
- Enhance subject matter learning in applying classroom knowledge to practical experience.
- Develop commitment to service, social justice, and community involvement and enable them to work productively with diverse communities.

### Course Outcomes

**On the completion of the course the student-teachers will be able to:**

**CO1** Understand the importance of environment through different activities.

**CO2** Develop the ability to create best out of waste

**CO3:** Develop skills, other than classroom teaching, that needed to become an effective teacher

### Catalogue Description

Service learning is a form of experiential learning; there are key areas where service-learning departs from traditional models of experiential learning. For example, service-learning has a greater emphasis on reciprocal learning and reflection. Service-learning pedagogy ensures that goals and objectives as well as overall curriculum structure are premised on collaboration.

Service learning has proven to be an innovative and effective education methodology that is grounded in scholarship. The Kolb model describes the key stages that service learners cycle through in their educational processes: 1) concrete experiences, 2) reflective observation, 3) abstract conceptualization, and 4) active experimentation. Each of these four stages is an integral part of service-learning that must be fully embraced by students, institutions, and community partners in order for service-learning's multifaceted goals to be achieved. Service-learning takes into account the needs of adult learners and uses appropriate methods and resources to facilitate meaningful learning and discovery.

### **Course Content**

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**Procedure:** The purpose of service learning is to create consciousness among the local villagers about various emerging social issues related to their basic survival. In order to complete the programme, teacher trainees will visit the adopted village with the faculty in charge. During visit the teacher trainees will complete the following activities listed below and submit the report as per the guidelines suggested by the faculty in charge.

#### **Suggested Activities**

##### **Activity I**

**03 Contact Hours**

Environmental awareness (Guest Lectures, Poster Making, Slogan writing, Conducting awareness discussions among the students and with specific groups).

##### **Activity 2:**

**03 Contact Hours**

Plantation (Awareness sessions; planting plants).

##### **Activity 3**

**03 Contact Hours**

Education of socially and educationally backward children.

##### **Activity 4**

**03 Contact Hours**

Proper use & disposal of waste materials (Awareness sessions; Implementation).

**Activity 5****03 Contact Hours**

Swachha Bharat Abhiyan.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record****Examination Scheme:**

<b>Components</b>	<b>Internal Practical Examination</b>	<b>Internal Practical Examination</b>
<b>Weightage (%)</b>	<b>50</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the importance of environment through different activities.	<b>PO7</b>
<b>CO2</b>	Develop the ability to create best out of waste	<b>PO9</b>
<b>CO3</b>	Develop skills, other than classroom teaching, that needed to become an effective teacher	<b>PO1</b>

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self -Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental Tasks</b>	<b>Diverse Needs:</b>	<b>Research and Entrepreneurial Skills:</b>
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED221A	Service Learning			3	3	3		3					3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>Programme and Course Mapping</b>														
<b>C</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>
<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>S</b>	<b>S</b>	<b>S</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>O</b>	<b>O</b>	<b>O</b>
<b>C</b>							3							
<b>O</b>														
<b>1</b>													3	
<b>C</b>														
<b>O</b>														
<b>2</b>														
<b>C</b>														
<b>O</b>														
<b>3</b>														
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														



Unit I	<b>Activity 1</b> Environmental awareness (Guest Lectures, Poster Making, Slogan writing, Conducting awareness discussions among the students and with specific groups).
Local	Environmental awareness
Regional	Environmental awareness
National	Environmental awareness
Global	Environmental awareness
Employability	Environmental awareness
Entrepreneurship	
Skill Development	
Professional Ethics	Environmental awareness
Gender	
Human Values	
Environment & Sustainability	Environmental awareness
Unit II	<b>Activity 2</b> Plantation (Awareness sessions; planting plants).
Local	Plantation
Regional	Plantation
National	Plantation
Global	
Employability	Plantation
Entrepreneurship	
Skill Development	
Professional Ethics	Plantation
Gender	
Human Values	
Environment & Sustainability	Plantation
Unit III	<b>Activity 3</b> Education of socially and educationally backward children.

Local	Education of socially and educationally backward children
Regional	Education of socially and educationally backward children
National	Education of socially and educationally backward children
Global	Education of socially and educationally backward children
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	Education of socially and educationally backward children
Gender	
Human Values	
Environment & Sustainability	
Unit IV	Activity 4 Proper use & disposal of waste materials (Awareness sessions; Implementation).
Local	Proper use & disposal of waste materials
Regional	Proper use & disposal of waste materials
National	Proper use & disposal of waste materials
Global	Proper use & disposal of waste materials
Employability	Proper use & disposal of waste materials
Entrepreneurship	
Skill Development	
Professional Ethics	Proper use & disposal of waste materials
Gender	
Human Values	
Environment & Sustainability	Proper use & disposal of waste materials
Unit V	Activity 5. Swachha Bharat Abhiyan.
Local	Swachha Bharat Abhiyan
Regional	Swachha Bharat Abhiyan

National	Swachha Bharat Abhiyan
Global	
Employability	Swachha Bharat Abhiyan
Entrepreneurship	
Skill Development	
Professional Ethics	Swachha Bharat Abhiyan
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 6 Ensure availability and sustainable management of water and sanitation for all, 6.a recycling and reuse technologies
NEP 2020	4.23 environmental awareness including water and resource conservation, sanitation and hygiene; 4.28 respect for environment 23.13 environmental preservation
POE/4 <sup>th</sup> IR	Skill Development and Employability

<b>SEED223A</b>	<b>ENGLISH I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Expression of Thoughts				
<b>Co-requisites</b>	--				

**\*Liberal Course ( Optional I)**

**Course Objectives**

The course will enable the student-teachers to:

- Recognize poetry from a variety of cultures, languages and historic periods.
- Recognize the literary features (allegory, sonnet, ode, epic, ballad, lyric, and dramatic monologue, epic) in a given text.

- Understand and appreciate poetry as a literary art form.
- Develop their vocabularies.
- Appreciate language and its connotations and denotations.

### **Course Outcomes**

On the completion of course student-teachers will be able to:

**CO1.** Classify various literary features of poetry in a given text.

**CO2.** Demonstrate various stanza forms of poetry in wide range of poetry.

**CO3.** Recognize and appreciate the poetry as a literary art form.

### **Catalogue Description**

This course introduces students to the study of poetry and its cultural, social, and historical contexts. Content includes terminology and methods for analysing and evaluating poetry including form, thematic development, and style. It contains selected poems of many great poets of various genres which will help the students develop an aptitude for understanding and interpreting a wide range of poetry.

### **Course Content**

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#### **Unit I**

**15 Contact Hours**

#### **Poetry and Types of Poetry**

- Allegory
- Sonnet
- Ode
- Epic
- Ballad
- Lyric
- Dramatic Monologue

#### **Unit II**

**12 Contact Hours**

#### **Stanza Forms in Poetry**

- Heroic couplet
- Spenserian Stanza
- Blank verse
- Terza Rima

### **Unit III**

**12 Contact Hours**

- William Shakespeare: Sonnet 144
- Edgar Allan Poe: To Science
- Thomas Gray: Elegy Written in a Country Churchyard

### **Unit IV**

**12 Contact Hours**

- Nissim Ezekiel: Night of the Scorpion
- Aga Shahid Ali: Call me Ishmael tonight
- John Keats: La Belle Dame sans Merci

### **Advanced Readings**

1. Abrams, M. H., & Harpham, G. G. (1999). *A glossary of Literary Terms*. Boston, Mass: Thomson Wadsworth.
2. Ali, Aga Shahid (2005). *Call Me Ishamael Tonight – A Book of Ghazals*. London. WW Norton.
3. Boulton, Marjorie (2006). *Anatomy of the Novel*. Kalyani Publishing, New Delhi.
4. Gray, Thomas (2011). *An Elegy Written in a Country Churchyard*. The Artists' Edition. Paperback. British Library, Historical Print Editions.
5. Nissim Ezekiel (2018). *Night of Scorpion* – [www.scholarspark.com](http://www.scholarspark.com)., Retrieved 18 August 2018.
6. Poe, Edgar Allan & Allen, Hervey (1938). *The Complete Tales and Poems of Edgar Allan Poe*. The Modern Library, New York.
7. Shakespeare, William (2009). *Sonnets*. Vintage Classics. Paperback.
8. Strachan, J. (2006). *The Poems of John Keats: A Routledge Study Guide and Sourcebook*. (Routledge Guides to Literature) Paperback.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Classify various literary features of poetry in a given text.	PO2
CO2	Demonstrate various stanza forms of poetry in wide range of poetry.	PO10
CO3	Recognize and appreciate the poetry as a literary art form.	PO4

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEED 223A	English I		3		3						3			3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1		3												
C O 2										3				
C O 3				3									3	
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Poetry and Types of Poetry
Local	
Regional	
National	
Global	Allegory Sonnet Ode Epic Ballad Lyric Dramatic Monologue
Employability	Allegory Sonnet Ode Epic Ballad Lyric Dramatic Monologue
Entrepreneurship	Allegory Sonnet Ode Epic Ballad Lyric Dramatic Monologue
Skill Development	Allegory Sonnet Ode Epic Ballad Lyric Dramatic Monologue



Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	
Local	
Regional	
National	
Global	<p>Heroic couplet</p> <p>Spenserian Stanza</p> <p>Blank verse</p> <p>Terza Rima</p>
Employability	<p>Heroic couplet</p> <p>Spenserian Stanza</p> <p>Blank verse</p> <p>Terza Rima</p>
Entrepreneurship	<p>Heroic couplet</p> <p>Spenserian Stanza</p> <p>Blank verse</p> <p>Terza Rima</p>
Skill Development	<p>Heroic couplet</p> <p>Spenserian Stanza</p> <p>Blank verse</p> <p>Terza Rima</p>
Professional Ethics	
Gender	

Human Values	
Environment & Sustainability	
<b>Unit III</b>	
Local	
Regional	
National	
Global	William Shakespeare: Sonnet 144 Edgar Allan Poe: To Science Thomas Gray: Elegy Written in a Country Churchyard
Employability	William Shakespeare: Sonnet 144 Edgar Allan Poe: To Science Thomas Gray: Elegy Written in a Country Churchyard
Entrepreneurship	William Shakespeare: Sonnet 144 Edgar Allan Poe: To Science Thomas Gray: Elegy Written in a Country Churchyard
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	
Local	
Regional	
National	
Global	Nissim Ezekiel: Night of the Scorpion Aga Shahid Ali: Call me Ishmael tonight

	John Keats: La Belle Dame sans Merci
Employability	Nissim Ezekiel: Night of the Scorpion Aga Shahid Ali: Call me Ishmael tonight John Keats: La Belle Dame sans Merci
Entrepreneurship	Nissim Ezekiel: Night of the Scorpion Aga Shahid Ali: Call me Ishmael tonight John Keats: La Belle Dame sans Merci
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	By 2030, ensure that all girls and boys complete free, equitable and quality primary
NEP 2020	India's languages are among the richest, most scientific, most beautiful, and most expressive in the world, with a huge body of ancient as well as modern literature
POE/4 <sup>th</sup> IR	Cross-cultural Programme, The students will participate in Literature Festival (19th -23rd January 2023) or The Literary theater program telecasted in the Theatre auditorium/ Hands - on Experience

<b>SEED225A</b>	<b>Hindi I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic Knowledge of Hindi Bhasha and Literature				
<b>Co-requisites</b>	--				

### Course Objectives

#### इस पाठ्यक्रम का उद्देश्य है,

- भाषा, बोली, लिपि और वर्तनी का समुचित ज्ञान। जिससे व्यक्ति समाज में शुद्ध बोल सके, लिख सके और अपने विचारों को स्पष्ट तरीके से सबके सम्मुख रख सके।
- भाषाई कौशल में संचार तकनीकी और सामाजिक संवेदना एवं जागरूकता के विकास में मीडिया की भूमिका के साथ व्यक्तित्व एवं आत्मविश्वास के विकास में भाषा एवं संचार के माध्यमों की भूमिका का अध्ययन करना।
- साहित्य के विविध विधाओं में रचनात्मक लेखन की विविध रूपों का अध्ययन और अनुवाद के तत्व स्वरूप एवं प्रक्रिया का समुचित अध्ययन करना।
- हिंदी साहित्य के विभिन्न धाराओं और प्रवृत्तियों का संक्षिप्त परिचय प्राप्त करना।

### Course Outcomes

इस कोर्स के पूरा होने के परिणामतः छात्र निम्नलिखित ज्ञान प्राप्त कर पाएंगे:

**CO1:** प्रस्तुत पाठ्यक्रम के सम्यक अध्ययन के पश्चात् विद्यार्थी हिंदी भाषा, मानक भाषा, लिपि और साहित्य के विभिन्न आयामों से विधिवत रूप से परिचित हो, तदनन्तर अपने विद्यार्थियों को भी ज्ञानलोकित कर पाएंगे।

**CO2:** भाषा के प्रायोगिक पक्ष, आधुनिक संचार तकनीकी में भाषा का प्रसार, व्यक्तित्व एवं आत्मविश्वास के विकास में विद्यार्थी दक्ष हो पायेंगे।

**CO3:** इस पाठ्यक्रम के अध्ययन के उपरांत विद्यार्थी में रचनात्मक लेखन कौशल एवं अनुवाद कौशल जैसे संप्रेषण कौशल आदि, का विकास हो पाएगा और वह भविष्य में इन विधाओं में दक्षता पूर्वक कार्य को संपन्न कर पाएगा।

**CO4:** प्रस्तुत पाठ्यक्रम हिंदी साहित्य की आदि काल से लेकर आधुनिक काल तक की सभी मुख्य साहित्यिक धाराओं और प्रवृत्तियों से विद्यार्थी समुचित रूप से अवगत हो पाएगा। और साहित्यिक अनुसंधान में अपना योगदान दे पाएगा।

### Catalog Description

मनुष्य एक सामाजिक प्राणी है। यह जो सामाजिकता है, यह विचारों के आदान-प्रदान के माध्यम से ही फल फूल रहा है। भाषा के अभाव में व्यक्ति असहाय या अकेला सा अनुभव करता है। अपने विचारों भावों को दूसरों से व्यक्त करने हेतु जिस उपाय की आवश्यकता होती है वह भाषा है। अतः इसकी शुद्धता अत्यंत आवश्यक है। और भाषा की शुद्धता के लिए आवश्यक है की लिपि और वर्तनी के स्तर पर सुधार हो जिसके लिए व्याकरण का समुचित ज्ञान भी जरूरी है, जिसके बिना मनुष्य स्वान को श्वान, सकल को शकल बोलकर अर्थ का अनर्थ कर सकता है। आधुनिक समाज के उन्नत तकनीकी एवं संचार माध्यमों के साथ आगे बढ़ते रहने के लिए आवश्यक है कि भाषा का प्रसार, भाषा की पहुंच विभिन्न ई माध्यमों में भी होनी चाहिए और इसमें सब की दक्षता भी अपेक्षित है। जिससे कि, सामाजिक संवेदना और जागरूकता के विकास में भाषाई संचार के माध्यमों की दक्षता के साथ उपयोग हम कर सकें।

बदलते परिवेश में यह देखा गया है कि, साहित्य में विभिन्न नए विधाओं का सृजन हुआ है। रचनात्मकता लेखन का एक अभिन्न अंग है, जिसके सर्वांगीण विकास हेतु यह आवश्यक है कि विद्यार्थियों को इस महत्वपूर्ण अंग से परिचित करवाया जाए और इसकी उपयोगिता को रेखांकित करते इनको इसमें पारंगत कराया जाए। जिससे की समय के साथ साथ कदम दर कदम चलने में हिंदी भाषा भाषी को कोई परेशानी न हो।

आधुनिकता के बढ़ते कदमों और भारतीय बाजारों की बढ़ती लोकप्रियता के साथ साथ कई अहिंदीभाषी देशों में भी हिंदी भाषा में रोजगार के नए नए अवसर निकल रहे हैं, जैसे अनुवादक, हिंदी भाषा शिक्षक इत्यादि। इन अवसरों को भुनाने हेतु हिंदी भाषा, व्याकरण और साहित्य का समेकित अध्ययन समय की मांग है। इसी मांग की पूर्ति की दिशा में किया गया यह पाठ्यक्रम एक छोटा सा प्रयास है।

## Course Content

### Unit I:

15 Contact

#### Hours

### भाषा एवं साहित्य गद्य भाग:

भाषा की परिभाषा, भाषा एवम मानव जीवन

भाषा और भाषा वैविध्य :-

भाषा का मौखिक और लिखित रूप

क्षेत्रीय / प्रादेशिक बोली , समाज , शैली एवं जनसंचार माध्यम के स्तर पर भाषा के विविध रूप

मानक भाषा की संकल्पना एवं मानक भाषा के रूप में हिंदी का विकास (ध्वनि, शब्द , व्याकरण , अर्थ, लिपि, और वर्तनी के स्तर पर ) भाषाई अशुद्धि

### Unit II:

12 Contact

#### Hours

### भाषा का प्रायोगिक पक्ष, संचार तकनीकी एवं आत्मविश्वास :

संचार तकनीकी : अवधारणा, प्रकृति, प्रकार , कार्य एवं संभावनाएं

भाषाई कौशल विकास में सूचना एवं संचार तकनीकी की भूमिका

ई-मेल लेखन, बायोडाटा लेखन पत्र लेखन , समूह विमर्श , एवं प्रस्तुतीकरण

सामाजिक संवेदना एवं जागरूकता के विकास में भाषा मीडिया की भूमिका

व्यक्तित्व एवं आत्मविश्वास के विकास में भाषा एवं संचार माध्यम की भूमिका

### Unit III:

15 Contact

#### Hours

### रचनात्मक लेखन एवं अनुवाद

रचनात्मक लेखन : परिभाषा , प्रतिक्रिया , उपयोगिता

रचनात्मक लेखन के विविध रूप :- कविता , कहानी , उपन्यास , निबंध , नाटक , जीवनी ,

आत्मकथा

अनुवाद : अर्थ , परिभाषा , स्वरूप , महत्व

अनुवाद के तत्व : श्रोत भाषा , लक्ष्य भाषा , सम्प्रेषण कोशगत अर्थ , अनुवाद सामग्री भावार्थ

अनुवाद स्वरूप एवं प्रक्रिया :- शाब्दिक अनुवाद , भावानुवाद , छायानुवाद, सारानुवाद , अनुवाद

प्रक्रिया के आयाम एवं प्रमुख पक्ष

### Unit IV:

12 Contact

#### Hours

आदिकाल (प्रारम्भ ) से लेकर आधुनिक कल तक सभी प्रमुख धाराओं का संक्षिप्त परिचय , प्रवृत्तियाँ / विचारधाराएं

### Suggested Text Books

1. हिन्दी साहित्य का इतिहास : राम चंद्र शुक्ल (राजकमल प्रकाशन दिल्ली )
2. रचनात्मक लेखन : संपादक :- प्रो० रमेश गौतम (भारतीय ज्ञानपीठ दिल्ली )

### Advanced Readings:

1. हिन्दी साहित्य का इतिहास - डॉ. नगेन्द्र, राजकमल प्रकाशन
2. रचनात्मक लेखन : संपादक :- प्रो० रमेश गौतम (भारतीय ज्ञानपीठ दिल्ली )
3. अनुवाद : अवधारणा एवं अनुप्रयोग : डॉ. चंद्र बहन रावल (नेशनल पब्लिशिंग हॉउस दिल्ली )
4. अनुवाद सिद्धांत एवं अनुप्रयोग : हिन्दी माध्यम कार्यान्वयन निदेशालय

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

#### Mapping between COs and Pos

	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	प्रस्तुत पाठ्यक्रम के सम्यक अध्ययन के पश्चात् विद्यार्थी हिंदी भाषा, मानक भाषा, लिपि और साहित्य के विभिन्न आयामों से विधिवत रूप से परिचित हो, तदनन्तर अपने विद्यार्थियों को भी ज्ञानलोकित कर पाएंगे।	PO10
CO2	भाषा के प्रायोगिक पक्ष, आधुनिक संचार तकनीकी में भाषा का प्रसार, व्यक्तित्व एवं आत्मविश्वास के विकास में विद्यार्थी दक्ष हो पायेंगे।	PO9
CO3	इस पाठ्यक्रम के अध्ययन के उपरांत विद्यार्थी में रचनात्मक लेखन कौशल एवं अनुवाद कौशल जैसे संप्रेषण कौशल आदि, का विकास हो जाएगा और वह भविष्य में इन विधाओं में दक्षता पूर्वक कार्य को संपन्न कर जाएगा।	PO10
CO4	प्रस्तुत पाठ्यक्रम हिंदी साहित्य की आदि काल से लेकर आधुनिक काल तक की सभी मुख्य साहित्यिक धाराओं और प्रवृत्तियों से विद्यार्थी समुचित रूप से अवगत हो जाएगा। और साहित्यिक अनुसंधान में अपना योगदान दे जाएगा।	PO9

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self-Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research and Entrepreneurial Skills</b>
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PS O1	PS O2	PS O3
SEE D 225 A	Hindi I	3	2	3		3		2	3	2	2			3	2

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1										3				
C O 2									3					2
C O 3										3			3	
C O 4									3					
1=lightly mapped					2= moderately mapped					3=strongly mapped				

Unit I	भाषा एवं साहित्य गद्य भाग
Local	भाषा की परिभाषा, भाषा एवम मानव जीवन
Regional	भाषा का मौखिक और लिखित रूप
National	क्षेत्रीय / प्रादेशिक बोली , समाज , शैली एवं जनसंचार माध्यम के स्तर पर भाषा के विविध रूप
Global	मानक भाषा की संकल्पना एवं मानक भाषा के रूप में हिंदी का विकास (ध्वनि, शब्द , व्याकरण , अर्थ, लिपि, और वर्तनी के स्तर पर ) भाषाई अशुद्धि
Employability	अनुवादक, पत्रकारिता और मीडिया
Entrepreneurship	
Skill Development	सामाजिक संवेदना और जागरूकता
Professional Ethics	
Gender	
Human Values	सहयोग और समर्थन
Environment & Sustainability	
Unit II	भाषा का प्रायोगिक पक्ष, संचार तकनीकी एवं आत्मविश्वास :
Local	संचार तकनीकी : अवधारणा, प्रकृति, प्रकार , कार्य एवं संभावनाएं
Regional	
National	सामाजिक संवेदना एवं जागरूकता के विकास में भाषा मीडिया की भूमिका
Global	
Employability	हिंदी भाषा शिक्षक
Entrepreneurship	रचनात्मकता लेखन
Skill Development	स्वरों और व्यंजनों का अभ्यास
Professional Ethics	प्रोफेशनलिज्म
Gender	



Human Values	सामाजिकता
Environment & Sustainability	
<b>Unit III</b>	<b>रचनात्मक लेखन एवं अनुवाद</b>
Local	रचनात्मक लेखन : परिभाषा , प्रतिक्रिया , उपयोगिता
Regional	अनुवाद : अर्थ , परिभाषा , स्वरूप , महत्व
National	रचनात्मक लेखन के विविध रूप :- कविता , कहानी , उपन्यास , निबंध , नाटक , जीवनी , आत्मकथा
Global	
Employability	अहिंदीभाषी देशों में भी हिंदी भाषा में रोजगार के नए नए अवसर
Entrepreneurship	वेब डेवलपमेंट और डिजिटल मार्केटिंग:
Skill Development	व्याकरण का समझ
Professional Ethics	सामाजिक उत्तरदायित्व
Gender	
Human Values	सामाजिक न्याय और अधिकार
Environment & Sustainability	
<b>Unit IV</b>	<b>आदिकाल</b>
Local	आदिकाल (प्रारम्भ ) से लेकर आधुनिक कल तक सभी प्रमुख धाराओं का संक्षिप्त परिचय , प्रवृत्तियाँ / विचारधाराएं
Regional	
National	
Global	
Employability	कला और साहित्य
Entrepreneurship	
Skill Development	पढ़ाई और स्वाध्याय
Professional Ethics	सत्यवाद
Gender	
Human Values	सामाजिक संवाद
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED227A</b>	<b>Chinese- I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>					
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- Pronounce and read Chinese
- Recognize Chinese Characters and comprehend it's meaning
- Understand basic utterances in Chinese
- Reproduce basic Chinese introductory communication

### Course Outcomes

On the completion of this course, the student-teachers will be able to:

**CO1:** Read the pin-yin, Read the new words and Text

**CO2:** Pronounce Chinese sound system

### Catalog Description

This course aims to equip students with fundamental skills in the Chinese language, focusing on pronunciation, character recognition, comprehension of basic utterances, and reproduction of introductory dialogues. Throughout the course, students will engage in various activities designed to develop their proficiency in Chinese communication.

### Course Content

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#### Unit I:

**15 Contact Hours**

#### **Pronouncing Initials and finals of Chinese sound chart**

- Knowledge of phonetic system as per IPA of a foreign language
- Ability to pronounce the unique sounds and tones of Chinese language

#### Unit II:

**15 Contact Hours**

#### **Reading of Chinese Characters with accurate sounds & tones**

- Knowledge of phonetic system as per IPA of a foreign language

- Ability to pronounce the unique sounds and tones of Chinese language and development in spoken Chinese ability

**Unit III:**

**10 Contact Hours**

**Comprehension of Chinese utterances and situational dialogues**

- Comprehension of a foreign culture through Chinese text and dialogues
- Comprehension ability of Chinese dialogues and communications
- Awareness of Gender roles through Chinese script

**Unit IV:**

**15 Contact Hours**

**Hours**

**Reproducing grammatical correct introductory dialogues in Chinese**

- Greeting in a foreign language-Chinese
- Tourism Industry- Receiving Chinese clients and greeting them.
- Form grammatically correct Chinese sentences and produce content in Chinese language.
- Awareness of Gender roles through Chinese characters
- Knowledge of moral value system of a foreign community through language

**Suggested Readings**

- "Mandarin Chinese Phonetics: A Practical Guide for English Speakers" by Lin, Chuanren
- "Chinese Pronunciation: A Handbook for Teachers and Learners" by Yen-Hwei Lin
- "Yufa! A Practical Guide to Mandarin Chinese Grammar" by Wen-Hua Teng
- "Mandarin Chinese for Beginners: Mastering Conversational Chinese (Fully Romanized and Free Online Audio)" by Yi Ren
- "Survival Chinese: How to Communicate Without Fuss or Fear Instantly! (A Mandarin Chinese Language Phrasebook)" by Boye Lafayette De Mente
- "Chinese Business Etiquette: A Guide to Protocol, Manners, and Culture in the People's Republic of China" by Scott D. Seligman

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and Pos</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Read the pin-yin, Read the new words and Text	PO2
<b>CO2</b>	Pronounce Chinese sound system	PO3

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self-Development and Community</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research and Entrepreneurial Skills</b>
<b>Course Code</b>	<b>Course Title</b>	<b>PO 1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO 4</b>	<b>PO 5</b>	<b>PO 6</b>	<b>PO 7</b>	<b>PO 8</b>	<b>PO 9</b>	<b>PO 10</b>	<b>PO 11</b>	<b>PS O1</b>	<b>PS O2</b>	<b>PS O3</b>
SEE D 227 A	Chinese- I		3	3	3		2							3	2

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P O 12	P S O 1	P S O 2	P S O 3
C O 1		3													2
C O 2			3			2								3	
	1=lightly mapped					2= moderately mapped					3=strongly mapped				

<b>Unit I</b>	<b>Pronouncing Initials and finals of Chinese sound chart</b>
Local	
Regional	
National	
Global	Knowledge of phonetic system as per IPA of a foreign language
Employability	
Entrepreneurship	
Skill Development	Ability to pronounce the unique sounds and tones of Chinese language
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Reading of Chinese Characters with accurate sounds &amp; tones</b>
Local	
Regional	
National	
Global	Knowledge of phonetic system as per IPA of a foreign language
Employability	
Entrepreneurship	
Skill Development	Ability to pronounce the unique sounds and tones of Chinese language and development in spoken Chinese ability
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Comprehension of Chinese utterances and situational dialogues</b>

Local	
Regional	
National	
Global	Comprehension of a foreign culture through Chinese text and dialogues
Employability	
Entrepreneurship	
Skill Development	Comprehension ability of Chinese dialogues and communications
Professional Ethics	
Gender	Awareness of Gender roles through Chinese script
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Reproducing grammatical correct introductory dialogues in Chinese</b>
Local	
Regional	
National	
Global	Greeting in a foreign language-Chinese
Employability	Tourism Industry- Receiving Chinese clients and greeting them.
Entrepreneurship	
Skill Development	Form grammatically correct Chinese sentences and produce content in Chinese language.
Professional Ethics	
Gender	Awareness of Gender roles through Chinese characters
Human Values	Knowledge of moral value system of a foreign community through language
Environment & Sustainability	
SDG	4,5, 8, 17
NEP 2020	
POE/4 <sup>th</sup> IR	

<b>SEED229A</b>	<b>MATHEMATICS I</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of Mathematics				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- Understand elementary properties of sets.
- Use linear inequalities to describe real life problems.
- Grasp elementary statistics ideas.
- Write an equivalent mathematical formulation of a real-world problem

### Course Outcomes

On the completion of this course, the student-teachers will be able to:

**CO1** To understand elementary properties of sets

**CO 2** Learn how linear inequalities can be used to describe real life problems

**CO 3** Learn elementary statistical concepts such as mean, variance, standard deviation and analysis of frequency distributions

**CO 4** To understand mathematical problem, and interpret its solution in terms of the real-world problem

### Catalog Description

This course enables students to understand elementary properties of sets. Sets help us to say which collection of objects is bigger and arrange them in order. Further, students shall learn how linear inequalities can be used to describe real life problems. They would be able to solve these problems both graphically and mathematically. Students shall also learn elementary statistical concepts such as mean, variance, standard deviation and analysis of frequency distributions. Moreover, students shall consider a real-world problem and write it as an equivalent mathematical problem. They then solve the mathematical problem, and interpret its solution in terms of the real-world problem.

## Course Content

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### Unit I:

15 Contact Hours

#### Sets

- Sets and their Representations
- Types of Sets: Empty, Finite and Infinite, Equal, Power, Universal
- Venn Diagrams
- Operations on Sets
- Complement of a Set
- Practical Problems on Union and Intersection of Two Sets

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### Unit II:

15 Contact Hours

#### Linear Inequalities

- Algebraic Solutions of Linear Inequalities in One Variable and their Graphical Representation
- Graphical Solution of Linear Inequalities in Two Variables
- Solution of System of Linear Inequalities in Two Variables

### Unit III:

10 Contact Hours

#### Elementary Statistics

- Range
- Quartile and Mean Deviation
- Variance and Standard Deviation
- Analysis of Frequency Distributions

### Unit IV:

15 Contact Hours

#### Mathematical Modelling

- Review of Word Problems
- Some Illustrations of Mathematical Models
- The Process of Modelling, its Advantages and Limitations
- Stages in Mathematical Modelling
- Principles of Mathematical Modelling



### Suggested Text Books

1. NCERT, Exemplar Problems for Class XI – XII.
2. NCERT, Mathematics, Textbook for Class XI – XII.

### Advanced Readings

1. Gupta, S. C. and Kapoor, V. K. (2014). Fundamentals of Mathematical Statistics, Sultan Chand & Sons.
2. Hosking, Roger J. and Venturino, Ezio (2008). Aspects of Mathematical Modelling: Applications in Science, Medicine, Economics and Management, Birkhäuser.
3. Illner, Reinhard (2011). Mathematical Modelling, Orient Blackswan Private Limited - New Delhi.
4. Pinter, Charles C. (2014). A Book of Set Theory, Dover Publications Inc.
5. Robert, R. Stoll, Set Theory and Logic, Dover Publications Inc.; New Edition

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	To understand elementary properties of sets	PO7
CO2	Learn how linear inequalities can be used to describe real life problems	PO10

<b>CO3</b>	Learn elementary statistical concepts such as mean, variance, standard deviation and analysis of frequency distributions	<b>PO3</b>
<b>CO4</b>	To understand mathematical problem, and interpret its solution in terms of the real-world problem.	<b>PO5</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 229A	Mathematics -I			3		2		3			3				

C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1							3							
C O 2										3			3	
C O 3			3											
C O 4					2									
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	SETS
Local	Sets and their Representations Types of Sets: Empty, Finite and Infinite, Equal, Power, Universal

	Venn Diagrams Operations on Sets Complement of a Set Practical Problems on Union and Intersection of Two Sets
Regional	
National	Sets and their Representations Types of Sets: Empty, Finite and Infinite, Equal, Power, Universal Venn Diagrams Operations on Sets Complement of a Set Practical Problems on Union and Intersection of Two Sets
Global	Sets and their Representations Types of Sets: Empty, Finite and Infinite, Equal, Power, Universal Venn Diagrams Operations on Sets Complement of a Set Practical Problems on Union and Intersection of Two Sets
Employability	Sets and their Representations Types of Sets: Empty, Finite and Infinite, Equal, Power, Universal Venn Diagrams Operations on Sets Complement of a Set Practical Problems on Union and Intersection of Two Sets
Entrepreneurship	
Skill Development	Practical Problems on Union and Intersection of Two Sets
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Linear Inequalities</b>
Local	Algebraic Solutions of Linear Inequalities in One Variable and their Graphical Representation Graphical Solution of Linear Inequalities in Two Variables Solution of System of Linear Inequalities in Two Variables
Regional	Algebraic Solutions of Linear Inequalities in One Variable and their Graphical Representation
National	Graphical Solution of Linear Inequalities in Two Variables Solution of System of Linear Inequalities in Two Variables
Global	Solution of System of Linear Inequalities in Two Variables
Employability	
Entrepreneurship	
Skill Development	Graphical Solution of Linear Inequalities in Two Variables
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	

<b>Unit III</b>	<b>Elementary Statistics</b>
Local	Range Quartile and Mean Deviation Variance and Standard Deviation Analysis of Frequency Distributions
Regional	Range Quartile and Mean Deviation Variance and Standard Deviation
National	Range Quartile and Mean Deviation Variance and Standard Deviation
Global	Analysis of Frequency Distributions
Employability	
Entrepreneurship	
Skill Development	Analysis of Frequency Distributions
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Mathematical Modelling</b>
Local	Review of Word Problems Some Illustrations of Mathematical Models The Process of Modelling, its Advantages and Limitations Stages in Mathematical Modelling Principles of Mathematical Modelling
Regional	Review of Word Problems
National	Some Illustrations of Mathematical Models
Global	Stages in Mathematical Modelling
Employability	
Entrepreneurship	
Skill Development	The Process of Modelling, its Advantages and Limitations
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED235A</b>	<b>BIOLOGY I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic concepts of biology				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able:

- To familiarize students with the existing biological diversity on earth.
- To understand the primitive and existing life on earth.
- To understand the binomial taxonomy, nomenclature and systematics.
- To study the plant and animal kingdom and the process of evolution.
- To develop the skills of making an Herbarium.
- To examine and observe various plant and animal species and study their characteristic and identifying features.

### Course Outcomes

On completion of this course, the student-teachers will be able to:

**CO1** Understand the existing biodiversity on earth.

**CO2** Understand the mechanism of naming plant and animal species.

**CO3** Identify plant and animal species on the basis of their characteristics and identifying features.

**CO4** Analyze the biological evolution and their evidences.

**CO5** Comprehend the mechanism of evolution, variation and natural selection.

### Catalog Description

Studying biology is the foundation of all characteristics of life on Earth. Apart from creating solutions to the challenges many living organisms face, it paves the way for inventions and discoveries that improve the quality of life. Biology plays an important role in the understanding of complex forms of life involving humans, animals and plants. Understanding these intricate details of life helps humans understand how to care for themselves, animals and plants in the proper manner. Biology helps individuals understand the interaction between humanity and the world. It also develops interests in the lives of living organisms in an effort to preserve them.

## Course Content

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### Unit I:

15 Contact Hours

#### Diversity of Life

- What is living?
- Biodiversity
- Need for classification.
- Three domain of life.
- Taxonomy & Systematics.
- Concept of species and taxonomical hierarchy
- Binomial nomenclature.
- Tools for study of Taxonomy–Museums, Zoos, Herbaria, Botanical gardens.
- Five kingdom classification.
- Salient features and classification of Monera.
- Protista and Fungi into major groups.
- Lichens.
- Viruses and Viroids.
- Salient features and classification of plants into major groups- Algae, Bryophytes, Pteridophytes, Gymnosperm and Angiosperm (three to five salient and distinguishing features and at least two examples of each category);
- Angiosperms- classification up to class, characteristic features and examples.

### Unit II:

15 Contact Hours

#### Salient features and classification of animals

Animals- non chordate up to phyla level and chordate up to classes level (three to five salient features and at least two examples).

Animalae

A) Non-chordata

1. Porifera: Structure and reproduction, e.g. Sycon
2. Cnidaria: morphology and reproduction e.g. Coral
3. Platyhelminthes: morphology, reproduction and its relation to man, e.g. tapeworm.

4. Aschelminthes: morphology and reproduction, e.g. Ascaris.
5. Annelida: morphology and reproduction, e.g. earthworm
6. Arthropoda: morphology and reproduction, e.g. cockroach.
7. Echinodermata: morphology and reproduction, e.g. starfish.

#### B) Chordata

1. Pisces: generalised account of fish
2. Amphibia: e.g. Frog
3. Reptilia: e.g. Lizard
4. Aves: a general account of birds
5. Mammalia: e.g. rabbit, rat and man

### **Unit III:**

**15 Contact Hours**

#### **Origin of Life**

- Brief history of chemical evolution of first cell,
- Evolution of heterotrophs and autotrophs, and
- The advent of oxygen on the earth.

### **Unit IV:**

**15 Contact Hours**

#### **Evolution**

- Origin of life;
- Biological evolution and evidences for biological evolution (Paleontological, comparative anatomy, embryology and molecular evidence);
- Darwin's contribution,
- Modern Synthetic theory of Evolution; Mechanism of evolution– Variation (Mutation and Recombination), and
- Natural Selection with examples,
- Types of natural selection;
- Hardy- Weinberg's principle; Adaptive Radiation; Human evolution.

#### **Practicum**

1. Specimens study: Paramecium, Ascaris, Pila, Sea Urchin, Sargassum (alga).
2. Study photographs (em) T- Phage, TMV (Tobacco Mosaic Virus) (e.m.) bacteria.

3. Temporary mounts Sponge: gemmules and spicules Cockroach: mouth parts, trachea Earthworm: septal and pharyngeal. nephridia Slides of bacteria from pond water and curd Structure and movement of Euglena from pond water and Chlamydomonas from rain water puddles.
4. Mushroom: section cutting, study coloured photographs, grow *Aspergillus* and examine microscopically. Riccia and moss: study details Fern: section cutting (true and false indusium) Pinus: section cutting.
5. Any two families: Solanaceae, Graminae (Arecaceae).
6. Study of any angiosperm, slides of T.S. anther and L.S. ovule.
7. Study and describe three locally available common flowering plants from each of the following families (Solanaceae, Fabaceae and Liliaceae) including dissection and display of floral whorls and anther and ovary to show number of chambers. Types of root (Tap and Adventitious); Stem (Herbaceous and woody); Leaf (arrangement, shape, venation, simple and compound).

### **Suggested Text Books**

1. NCERT Class XI Textbook, NCERT, New Delhi.
2. NCERT Class XII Textbook, NCERT, New Delhi.

### **Advanced Readings**

1. Adhikari, S. and Sinha, A. K. (1990). Fundamentals of Biology of Animals, Vol.-3. New Central Book Agency: Calcutta. Alexander, R. McNeill. Animals, Cambridge University Press: Cambridge.
2. De Witt, William. Biology of the Cell - An Evolutionary Approach, W.B. Saunders Co: London, Keeton.
3. Dhama, P.S., Chopra, G., Srivastava, H.N. (2017). *Pradeep A Test Book of Biology Class 11 Vol 1 & 2*. Pradeep Publications.
4. Singh, L., & Kaur, M. *Science for Tenth Class Part 3 Biology*. S. Chand Publishing.

### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Quiz/Assignment/ presentation/Attendance/ Written**



## **Examination**

### **Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Mid Term Exam</b>	<b>Presentation/ Assignment/</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

### **Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and Pos</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the existing biodiversity on earth.	<b>PO1</b>
<b>CO2</b>	Understand the mechanism of naming plant and animal species.	<b>PO3</b>
<b>CO3</b>	Identify plant and animal species on the basis of their characteristics and identifying features.	<b>PO3</b>
<b>CO4</b>	Analyze the biological evolution and their evidences.	<b>PO3</b>
<b>CO5</b>	Comprehend the mechanism of evolution, variation and natural selection.	<b>PO11</b>

<b>Teaching Competencies</b>
<b>Effective Communication</b>
<b>Critical Thinking</b>
<b>Ethics</b>
<b>Life-long Learning</b>
<b>Sensitive towards Inclusion</b>
<b>Self-Development and Community Attachment</b>
<b>Technology Skills</b>
<b>Professional Competencies</b>
<b>General and Specific Need &amp; Problems</b>
<b>Pedagogical Content Analysis</b>
<b>Developmental tasks</b>
<b>Diverse Needs</b>
<b>Research and Entrepreneurial Skills</b>

Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 235A	Biology I	2		3								3	2		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
<b>C O 1</b>	2													
<b>C O 2</b>			3											
<b>C O 3</b>			3										3	
<b>C O 4</b>			3											
<b>C O 5</b>											3			
	1=lightly mapped				2= moderately mapped					3=strongly mapped				

Unit I	Diversity of Life
Local	What is living?
Regional	Concept of species and taxonomical hierarchy
National	Salient features and classification of Monera.
Global	Biodiversity

	Need for classification
Employability	Taxonomy & Systematics.
Entrepreneurship	Salient features and classification of plants into major groups- Algae, Bryophytes, Pteridophytes, Gymnosperm and Angiosperm (three to five salient and distinguishing features and at least two examples of each category)
Skill Development	Tools for study of Taxonomy–Museums, Zoos, Herbaria, Botanical gardens.
Professional Ethics	Tools for study of Taxonomy–Museums, Zoos, Herbaria, Botanical gardens.
Gender	
Human Values	
Environment & Sustainability	Need for classification. Three domain of life.
<b>Unit II</b>	<b>Salient features and classification of animals</b>
Local	
Regional	
National	Animals- non chordate up to phyla level and chordate up to classes level (three to five salient features and at least two examples).
Global	Animals- non chordate up to phyla level and chordate up to classes level (three to five salient features and at least two examples). Animalae
Employability	
Entrepreneurship	
Skill Development	Non-chordata 1. Porifera: Structure and reproduction, e.g. Sycon

	<p>2. Cnidaria: morphology and reproduction e.g. Coral</p> <p>3. Platyhelminthes: morphology, reproduction and its relation to man, e.g. tapeworm.</p> <p>4. Aschelminthes: morphology and reproduction, e.g. Ascaris.</p> <p>5. Annelida: morphology and reproduction, e.g. earthworm</p> <p>6. Arthropoda: morphology and reproduction, e.g. cockroach.</p> <p>Echinodermata: morphology and reproduction, e.g. starfish</p> <p>Chordata</p> <p>7. Pisces: generalised account of fish</p> <p>8. Amphibia: e.g. Frog</p> <p>9. Reptilia: e.g. Lizard</p> <p>10. Aves: a general account of birds</p> <p>11. Mammalia: e.g. rabbit, rat and man</p>
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit III	<b>Origin of Life</b>
Local	
Regional	
National	Brief history of chemical evolution of first cell,
Global	
Employability	
Entrepreneurship	
Skill Development	Evolution of heterotrophs and autotrophs,
Professional Ethics	
Gender	

Human Values	Evolution of heterotrophs and autotrophs
Environment & Sustainability	The advent of oxygen on the earth
Unit IV	<b>Evolution</b>
Local	Modern Synthetic theory of Evolution; Mechanism of evolution–Variation (Mutation and Recombination),
Regional	Types of natural selection
National	Darwin’s contribution,
Global	Biological evolution and evidence for biological evolution (Paleontological, comparative anatomy, embryology and molecular evidence);
Employability	Biological evolution and evidence for biological evolution (Paleontological, comparative anatomy, embryology and molecular evidence)
Entrepreneurship	
Skill Development	Modern Synthetic theory of Evolution; Mechanism of evolution–Variation (Mutation and Recombination)
Professional Ethics	Hardy- Weinberg’s principle; Adaptive Radiation; Human evolution
Gender	
Human Values	
Environment & Sustainability	Hardy- Weinberg’s principle; Adaptive Radiation; Human evolution
SDG	Quality primary/ Secondary Education for all (SDG4.1) and Skills for Decent Work (SDG 4.4)
NEP 2020	Equitable and Inclusive Education: Learning for All (6.1- 6.20) , Promotion of Indian Languages, Arts & culture (22.1-22.15)and Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)

POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs  Skill Development, Soft Skills and Employability
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<b>SEED243A</b>	<b>ECONOMICS I</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Growth and Development of Indian economy				
<b>Co-requisites</b>	--				

### Objectives

The course will enable the student-teachers to:

- Develop a fair idea of economics as a subject.
- Develop an understanding of the basic concepts in Micro Economics
- Construct fundamental knowledge of micro-economic theory
- Think about a number of policy questions relevant to the operation of the real economy and market policies.

### Course Outcomes

On the completion of the course student-teachers will be able to:

**CO1:** Understand the nature and scope of economics and its principles

**CO2:** Describe the concept of Demand and Supply and its relevance in real world

**CO3:** Illustrate how microeconomic concepts can be applied to analyze real-life situations.

**CO4:** Use the concepts of consumer, producer and total surplus to explain why markets typically lead to efficient outcomes

### Catalog Description

The introductory undergraduate course teaches the fundamentals of microeconomics provide a solid foundation for economic thinking. This course begins with an introduction to supply and demand and the basic forces that determine equilibrium in a market economy. Next, it

introduces a framework for learning about consumer behavior and analyzing consumer decisions. We then turn our attention to firms and their decisions about optimal production, and the impact of different market structures on firms' behavior. The course also includes the factor cost and pricing.

## **Course Content**

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### **Unit I:**

**15 Contact Hours**

#### **Introduction to Economics**

- Definition and scope of economics
- Forms of economic analysis –
  - Micro vs. Macro
  - Partial vs. General
  - Static vs Dynamic
  - Positive vs. Normative
  - Short run vs. Long run
- Types of economic systems
- Basic concepts of economic problems
- Economic rationality, optimality

### **Unit II:**

**15 Contact Hours**

#### **Demand and Supply**

- Concept and types of Demand
- Law of demand
- Concept of utility and utility theory
- Indifference curve approach.
- Concept and types of elasticity of demand
- Elastic and non-elastic goods
- Definition and concept of Supply
- Law of supply, supply function
- Price determination; shift of demand, and supply
- Elasticity of supply; consumer surplus

### **Unit III:**

**13 Contact Hours**

#### **Production Analysis, Costs and Market Structure**

- Concepts of Production- production isoquants
- Returns to factor, returns to scale
- Law of variable proportions
- Cost and revenue concepts
- Market structure and characteristics of perfect and imperfect competition
- Cartels
- Concept of Dumping

### **Unit IV**

**12 Contact Hours**

#### **Determination of Factor Prices, Rent, Interest, Wages and Profit**

- Concept of rent
- Wages, interest and profit
- Opportunity cost, Marginal productivity theory
- Labour supply and wage determination
- General Equilibrium and Economic Efficiency
- Market Failure

#### **Suggested Text Books**

1. Koutsoyiannis, A. Modern Micro Economics, Macmillan Press Ltd.
2. Lipsey, R.G. & Chrystal, K. E. Principles of Economics, Oxford University Press.
3. Mankiw, N. Gregory.:Principles of Economics, Cengage learning

#### **Advanced Readings**

1. Chaturvedi, D. D. and Gupta, S. L. Business Economics, Brijwasi Publishers.
2. Chopra, P. N. Principles of Economics, Kalyani Publishers.
3. Dwivedi, D. N. Managerial Economics, Vikas Publishing House.

#### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Modes of Evaluation: Student's performance based on continuous evaluation**



**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the nature and scope of economics and its principles	<b>PO1</b>
<b>CO2</b>	Describe the concept of Demand and Supply and its relevance in real world	<b>PO7</b>
<b>CO3</b>	Illustrate how microeconomic concepts can be applied to analyze real-life situations.	<b>PO7</b>
<b>CO4</b>	Use the concepts of consumer, producer and total surplus to explain why markets typically lead to efficient outcomes	<b>PO11</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 243A	Economics I		3	2	3			3		2				3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>SEMESTER IV</b>
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<b>SEED214A</b>	<b>COMMUNICATION IN TEACHING- LEARNING PROCESS</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Communication and Learning				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Develop the competencies of students to become effective communicators.
- Acquaint the students with the factors responsible for shaping interaction in the classroom.
- Familiarize the students with the language and ethics of communication in the classroom.
- Develop the reading and writing skills of the students.

### Course Outcomes

On the completion of the course student-teachers will be able to:

- CO1** Understand the role of communication in personal and professional success.
- CO2** Learn about to communicate effectively orally and in writing.
- CO3** Develop awareness of appropriate communication strategies.
- CO4** Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline.
- CO5** Analyze a variety of communication acts and ethically use, document and integrate sources.

### Catalog Description:

Communication in Teaching – Learning as viewed as a subject that aids in developing the student into effective communicators, who can efficiently and effectively articulate their thoughts, feelings and emotions. Communication is more than just pronunciation, intonation

or articulation. Communication involves the teachers' classroom discourse and interaction that deepen thinking to help students internalize and process subject content. This course in Communication takes into account the context and purpose for which teachers and students are communicating. Given the emphasis on 21st century competencies, more demands are being made on the students to explain, justify and reason through problem-solving strategies. Teaching is not be seen as a one-sided activity, where in teacher is disseminating information, but two-way with teacher and/or students responding to each other to deepen content learning. The interaction among students as they co-construct knowledge becomes important too. The students play an active role in recognizing the role of language in meaning making, and see communication as a collaborative activity. Teachers and students co-construct knowledge together, particularly in the subjects that involve multimodal aspects of communication, for example, visual data such as graphs, charts, and statistics.

## **Course Content**

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### **Unit I:**

**13 Contact Hours**

#### **Teacher as Communicator**

- Awareness of audience as a key factor in communication
- Children as learners
- Communication and curriculum
- Concept of language across the curriculum
- Interpreting response in oral interaction
- Feedback as communication
- Communication as a factor in Institutional Ethos
- Communication, language and ethics.

### **Unit II:**

**13 Contact Hours**

#### **Reading as resource**

- Reading as resource
- Choice of readings
- Analyzing a text from the perspective of students
- Communication through different media.

### **Unit III:**

**14 Contact Hours**

#### **Writing Skills for Teachers**

- Writing letters, applications, reports, minutes, and essays
- Writing about research
- Writing annotations
- References and bibliography
- Writing journals and reflective diaries, etc.
- Improving one's own language proficiency in oral and written modes: narrating, describing, analyzing

### **Unit IV:**

**14 Contact Hours**

#### **Speaking Skills**

- Dialogue
- Group Discussion
- Interview
- Public Speech
- Role Play/Extempore
- Presentations

#### **Suggested Text Books**

1. NCERT Books Class 10 Communication system

#### **Advanced Readings**

1. Rose, D. & Martin, J. (2012). Learning to write, reading to learn: Genre, knowledge and pedagogy in the Sydney school. Sheffield, United Kingdom: Equinox Publishing.
2. Fluency in English - Part II, Oxford University Press, 2006.
3. Business English, Pearson, 2008.
4. Language, Literature and Creativity, Orient Blackswan, 2013.
5. Language through Literature (forthcoming) ed. Dr. Gauri Mishra, Dr Ranjana Kaul, Dr Brati Biswas

#### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Modes of Evaluation: Student’s performance based on continuous evaluation**

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the role of communication in personal and professional success.	<b>PO2</b>
<b>CO2</b>	Learn about to communicate effectively orally and in writing.	<b>PO9</b>
<b>CO3</b>	Develop awareness of appropriate communication strategies.	<b>PO3</b>
<b>CO4</b>	Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline.	<b>PO10</b>
<b>CO5</b>	Analyze a variety of communication acts and ethically use, document and integrate sources.	<b>PO4</b>



1=lightly mapped	2= moderately mapped	3=strongly mapped
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<b>Unit I</b>	<b>Teacher as Communicator</b>
Local	Awareness of audience as a key factor in communication
Regional	Children as learners
National	Concept of language across the curriculum
Global	Communication and curriculum
Employability	Interpreting response in oral interaction
Entrepreneurship	Communication as a factor in Institutional Ethos
Skill Development	Feedback as communication
Professional Ethics	Communication, language and ethics.
Gender	
Human Values	Awareness of audience as a key factor in communication
Environment & Sustainability	
<b>Unit II</b>	<b>Reading as resource</b>
Local	Reading as resource
Regional	Choice of readings
National	Choice of readings
Global	Choice of readings
Employability	Communication through different media.
Entrepreneurship	Communication through different media.
Skill	Analyzing a text from the perspective of students



Development	
Professional Ethics	Reading as resource
Gender	
Human Values	Analyzing a text from the perspective of students
Environment & Sustainability	
<b>Unit III</b>	<b>Writing Skills for Teachers</b>
Local	Writing letters, applications, reports, minutes, and essays Writing annotations
Regional	Writing about research
National	Writing about research References and bibliography
Global	References and bibliography Writing about research
Employability	Writing journals and reflective diaries, etc.
Entrepreneurship	
Skill Development	Improving one's own language proficiency in oral and written modes: narrating, describing, analyzing Writing about research
Professional Ethics	References and bibliography
Gender	
Human Values	Writing journals and reflective diaries, etc.
Environment & Sustainability	
<b>Unit IV</b>	<b>Speaking Skills</b>
Local	Dialogue Public Speech
Regional	Dialogue Group Discussion Public Speech

National	Group Discussion Interview Public Speech
Global	Group Discussion Interview Presentations
Employability	Group Discussion Interview Presentations
Entrepreneurship	Group Discussion Interview Presentations
Skill Development	Role Play/Extempore Presentations
Professional Ethics	Group Discussion Interview
Gender	
Human Values	Public Speech Role Play/Extempore
Environment & Sustainability	
SDG	Create sound policy frameworks Quality primary/ Secondary Education for all Skills for Decent Work Youth and Adult Literacy Safe and Inclusive Learning Environments Professional Development of Teachers
NEP 2020	Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging Equitable and Inclusive Education: Learning for All Towards a More Holistic and Multidisciplinary Education Optimal Learning Environments and Support for Students Teacher Education Promoting High-quality research Technology Use & Integration
POE/4 <sup>th</sup> IR	Global Education Knowledge Practical Courses from Industry/Alumni Technical Skills that match Industry Needs Updated Curriculum Team Work Simulations

<b>SEED216A</b>	<b>LOGICO- MATHEMATICS EDUCATION</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	--Concepts of mathematics				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teachers will be able to:

- Understand the nature and dynamics of logico-mathematical thinking in relation to developmental theories of Piaget, Bruner and Vygotsky.
- Study the pedagogical consideration with reference to learning theories of Piaget and Vygotsky.
- Study Mathematics in the context of school.
- Familiarise with pedagogical concepts of Mathematics.

### Course Outcomes:

On the completion of this course, the student-teachers will be able to:

**CO 1** Make the distinction between different kinds of knowledge, based on their sources

**CO 2** Develops as each person makes logical connections.

**CO 3** Experiences stimulate the development of logico-mathematical knowledge

**CO 4** The actual neural connections which represent this knowledge are built from the inside.

### Catalog Description

“Logico-mathematical knowledge” is a term invented by Piaget, the renowned educational researcher. He wanted to make the distinction between different kinds of knowledge, based on their sources. Then there is logico-mathematical knowledge, which is constructed inside the brain. Logico-mathematical knowledge is the knowledge of relationships, and relationships don’t exist until we make them. It’s the sort of knowledge only humans (and perhaps some very intelligent animals to a limited degree) can make. Logico-mathematical knowledge is “real magic”! the creation of “something” where there used to be “nothing.” Relationships include all abstract nouns, “mathematical” or not: number, area, length, equal...as well as fairness, love, peace, justice. Logico-mathematical knowledge is constructed by each individual, inside his or her own head. It doesn’t come from the outside. It can’t be seen, heard, felt or told. It develops as each person makes logical connections. Schooling and other

experiences stimulate the development of logico-mathematical knowledge, but the actual neural connections which represent this knowledge are built from the inside.

## **Course Content**

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### **Unit I:**

**15 Contact Hours**

- Nature of children's logico-mathematics thinking theories of Piaget, Bruner
- Dienes and Vygotsky
- intuitive mathematics
- mental mathematics
- cultural differences and specificities.

### **Unit II:**

**15 Contact Hours**

- Critical study of some pedagogic considerations with reference to learning theory and practice: readiness
- consolidating mental arithmetic
- circular reactions (ref. Piaget); zone of proximal development (ref. Vygotsky)
- organising and structuring learning tasks; group and individual activity; drill
- memorization and algorithmization.

### **Unit III:**

**12 Contact Hours**

- Mathematics in the context of schools : text-books, curricula and class-room practices
- nature of mathematics - conceptual and procedural; areas (space, measurement, operations etc.)
- research on children's learning in specific areas; errors; feedback; testing and evaluation;
- the hidden curriculum; mathematics phobia and failure.

### **Unit IV:**

**10 Contact Hours**

- Content specific pedagogy: language of mathematics
- number, place value, fractions, decimals
- role of readymade kits.

### **Suggested Text Books**

1. National Council of Teachers of Mathematics (NCTM) (1989). Curriculum and Evaluation Standards for School Mathematics, NCTM, Reston: V.A.
2. National Council of Teachers of Mathematics (NCTM) (1989). Professional Standards for Teaching Mathematics, NCTM, Reston: V.A.
3. National Council of Teachers of Mathematics (NCTM)(1989). Assessment Standards for School Mathematics, NCTM, Reston: V.A.
4. NCTM Yearbook (1996). Communications in Mathematics, K-12 and Beyond, NCTM, Reston

### **Advanced Readings**

1. Begle, E. (Ed.). (1970). Mathematics Education, 69th Year book of NSSE, Chicago University Press: Chicago.
2. Clements, D. H. and M. T. Battista (1992). Geometry and Spatial Reasoning, ill P.A. Grouws (Ed), Handbook of Research on Mathematics Teaching and Learning, Reston: V.A.
3. Dienes, Z. P. (1959). 'The Growth of Mathematical Concepts in Children through Experience', Educaional Researcher, 2 (1): 9-28.
4. Floyd, Ann (Ed.) (1981). Developing Mathematical Thinking, Addison Wesley Pub. Ltd: U. K.
5. IGNOU (2001). Learning Mathematics, LMT-01, IGNOU: New Delhi.
6. Nunes, Terezinha (1998). Children Doing Mathematics, Blackwell Publishers: Cambridge.
7. Rampal, Anita. et.al. (1998). Numeracy Counts, National Literacy Resource Centre: Mussoorie
8. Tenson, Rosalie (1973). Exploring Mathematical Skill in the Elementary School, Charles E. Merrill Pub: us.

### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>

3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Make the distinction between different kinds of knowledge, based on their sources	<b>PO1</b>
<b>CO2</b>	Develops as each person makes logical connections.	<b>PO3</b>
<b>CO3</b>	Experiences stimulate the development of logico-mathematical knowledge	<b>PO5</b>
<b>CO4</b>	The actual neural connections which represent this knowledge are built from the inside.	<b>PO7</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 216A	Logico-Mathematics Education	2		3		2		3			2				

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O	O
C	2														
O			3												
C					2									3	
O							3								

1=lightly mapped                      2= moderately mapped                      3=strongly mapped

Unit I	
Local	Nature of children's logico-mathematics thinking theories of Piaget, Bruner, Dienes, and Vygotsky Intuitive mathematics Mental mathematic Cultural differences and specificities.
Regional	Nature of children's logico-mathematics thinking theories of Piaget, Bruner, Dienes, and Vygotsky Intuitive mathematics Mental mathematic Cultural differences and specificities.
National	Nature of children's logico-mathematics thinking theories of Piaget, Bruner, Dienes, and Vygotsky Intuitive mathematics Mental mathematic Cultural differences and specificities.
Global	Nature of children's logico-mathematics thinking theories of Piaget, Bruner, Dienes, and Vygotsky
Employability	Mental mathematic
Entrepreneurship	
Skill Development	Mental mathematic
Professional Ethics	Cultural differences and specificities.
Gender	
Human Values	
Environment & Sustainability	
Unit II	



Local	<p>Critical study of some pedagogic considerations with reference to learning theory and practice: readiness</p> <p>consolidating mental arithmetic</p> <p>circular reactions (ref. Piaget); zone of proximal development (ref. Vygotsky)</p> <p>organising and structuring learning tasks; group and individual acitivity; drill</p> <p>memorization and algorithmization.</p>
Regional	<p>Critical study of some pedagogic considerations with reference to learning theory and practice: readiness</p> <p>consolidating mental arithmetic</p> <p>circular reactions (ref. Piaget); zone of proximal development (ref. Vygotsky)</p> <p>organising and structuring learning tasks; group and individual acitivity; drill</p> <p>memorization and algorithmization.</p>
National	<p>Critical study of some pedagogic considerations with reference to learning theory and practice: readiness</p> <p>consolidating mental arithmetic</p> <p>circular reactions (ref. Piaget); zone of proximal development (ref. Vygotsky)</p> <p>organising and structuring learning tasks; group and individual acitivity; drill</p> <p>memorization and algorithmization.</p>
Global	<p>Critical study of some pedagogic considerations with reference to learning theory and practice: readiness</p> <p>consolidating mental arithmetic circular reactions (ref. Piaget); zone of proximal development (ref. Vygotsky)</p> <p>organising and structuring learning tasks; group and individual acitivity; drill, memorization and algorithmization.</p>

Employability	structuring learning tasks; group and individual acitivity;
Entrepreneurship	
Skill Development	organising and structuring learning tasks
Professional Ethics	Critical study of some pedagogic considerations with reference to learning theory and practice: readiness
Gender	
Human Values	
Environment & Sustainability	
Unit III	
Local	<p>Mathematics in the context of schools : text-books, curricula and class-room practices</p> <p>nature of mathematics - conceptual and procedural; areas (space, measurement, operations etc.)</p> <p>research on children's learning in specific areas; errors; feedback; testing and evaluation;</p> <p>the hidden curriculum; mathematics phobia and failure.</p>
Regional	<p>Mathematics in the context of schools : text-books, curricula and class-room practices</p> <p>nature of mathematics - conceptual and procedural; areas (space, measurement, operations etc.)</p> <p>research on children's learning in specific areas; errors; feedback; testing and evaluation;</p> <p>the hidden curriculum; mathematics phobia and failure.</p>
National	<p>Mathematics in the context of schools : text-books, curricula and class-room practices</p> <p>nature of mathematics - conceptual and procedural; areas (space, measurement, operations etc.)</p> <p>research on children's learning in specific areas; errors; feedback;</p>

	testing and evaluation; the hidden curriculum; mathematics phobia and failure.
Global	Mathematics in the context of schools : and class-room practices nature of mathematics - conceptual and procedural; areas (space, measurement, operations etc.) research on children's learning in specific areas; errors; feedback; testing and evaluation;
Employability	research on children's learning in specific areas; errors; feedback; testing and evaluation;
Entrepreneurship	
Skill Development	
Professional Ethics	class-room practices
Gender	
Human Values	
Environment & Sustainability	
Unit IV	
Local	Content specific pedagogy: language of mathematics number, place value, fractions, decimals role of readymade kits.
Regional	Content specific pedagogy: language of mathematics number, place value, fractions, decimals role of readymade kits.
National	Content specific pedagogy: language of mathematics number, place value, fractions, decimals role of readymade kits.
Global	Content specific pedagogy: language of mathematics

	number, place value, fractions, decimals
Employability	Content specific pedagogy
Entrepreneurship	
Skill Development	
Professional Ethics	language of mathematics
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11. Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills) 4.29 education is maximally relatable, relevant, interesting, and effective for our students.
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED218A</b>	<b>ARTS IN EDUCATION</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Aesthetic Values				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to-

- Understand basics of different art forms.
- Develop artistic and aesthetic sensibility among learners to enable them to respond to the beauty in different art forms, through genuine exploration, experience and free expression.
- Acquire skills for integrating different art forms across school curriculum for better learning and development.
- Develop awareness of the rich cultural heritage of the country.

### Course Outcomes

**On the completion of the course student-teachers will be able to:**

**CO1.** Prepare different art forms across curriculum for child growth and development.

**CO2.** Demonstrate creative arts forms in education through their own experience and free expressions.

**CO3.** Associate Art with the cultural heritage of the country

**CO4.** Inculcate sensitivity and sensibility towards the spirit of Indian Art and Craft.

### Catalogue Description

Arts Education as one of the domains of knowledge is taught as a compulsory curricular area up to class X. There is a need to integrate arts education in the formal schooling of students to retain our unique cultural identity in all its diversity and richness and encourage young and creative minds. The NCF-2005 recommends Arts Education as a subject as well as a pedagogical tool to make teaching and learning of other subjects more meaningful. The course on Arts in Education has been designed keeping in view the development of the self through arts for every student teacher and for the development of student in school through arts in education to be practiced by every teacher.

In the Bachelor of Education programme, students will be exposed to different art forms where they will develop basic skills of the art forms through hands on experience and integration of arts as pedagogy in different subject areas. They will also use these skills in practice teaching during school internship. Arts education also helps in enhancing analytical and critical thinking among students and learning through the arts and its related skills will help the student-teachers in developing their communication and inter-personal skills as well as presentational skills by bringing these in their teaching practice. For this, not only Art teachers but every teacher in the school system needs to be sensitized to understand and experience the Arts, for holistic development of the learner, as a teacher as well as an individual.

## **Course Content**

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### **Unit I:**

**12 Contact Hours**

#### **Appreciation of Art**

Identification of different performing styles and its artists; dance, music, theatre, puppetry, etc. (based on a set of slides, selected for the purpose).

- Understanding Craft Traditions of India and its relevance in education (based on a set of slides, selected for the purpose); traditional crafts as a pedagogy assimilating all sciences and social sciences.
- Knowledge of Indian Art – from earliest to the contemporary; Visual Arts (based on a set of slides, selected for the purpose), looking at paintings, sculptures, architecture/ monuments as sources and indicators to know the historical, political, social, scientific and technological development perspectives during different periods.
- Indian festivals and fairs, the traditions and their significance, the spirit of celebrations as a social phenomenon.

### **Unit II: Practicum**

**10 Contact Hours**

#### **Visual Art and Crafts**

- Hands on experience of working in different media and materials (drawing, painting, clay modeling, collage making etc. with pencil, pen, crayons, dry and water colours, clay, paper, etc.), methods and techniques (block printing, collage making, clay modeling, relief work, heritage crafts etc.) to learn visual art processes and its pedagogical aspects related to other subject areas.
- Exploring arts in education as a pedagogy across school curriculum and identifying themes and concepts for integrated learning for arts.
- Preparation and presentation techniques for effective classroom learning by developing aids and making the school environment aesthetically viable using artifacts and displays.

### **Performing Art: Dance, Music, Theatre and Puppetry**

- Listening/viewing and exploring regional music, dance, theatre and puppetry will help student-teachers in contextualizing different art forms and relating them with various concepts across the curriculum.
- Drama in education; learning is enhanced through drama in education; it enhances communication skills and develop personality and self. Adaptation of different texts and concepts or themes from the curricular areas to be practiced by student-teachers.
- Planning a stage-setting for a performance, presentation and participation by the student-teachers in any one of the regional performing art forms keeping integrated approach of all art forms with other subjects is recommended.

### **Advanced Readings**

1. Hunt, K., Water, V. D., & McAvoy, M. (2015). *Drama and Education: Performance Methodologies for Teaching and Learning*. London and New York: Routledge, 190 s.
2. NCERT (2008). Syllabus of Art Education Retrieved on March 12, 2017 from [http://www.ncert.nic.in/rightside/links/pdf/syllabus/Art\\_Educationfinal\\_syllabus.pdf](http://www.ncert.nic.in/rightside/links/pdf/syllabus/Art_Educationfinal_syllabus.pdf).
3. NCF (2005). Position Paper. National Focus Group on Arts, Music, Dance and Theatre. *NCERT, Delhi*.
4. Robert, F. & Williams. M. (2005). *Unlocking Creativity: A Teacher's Guide to Creativity across the Curriculum*. Taylor and Francis.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

<b>Components</b>	<b>Internal Practical Examination</b>	<b>Internal Practical Examination</b>
<b>Weightage (%)</b>	<b>50</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and Pos</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Prepare different art forms across curriculum for child growth and development.	<b>PO5</b>
<b>CO2</b>	Demonstrate creative arts forms in education through their own experience and free expressions.	<b>PO3</b>
<b>CO3</b>	Associate Art with the cultural heritage of the country	<b>PO7</b>
<b>CO4</b>	Inculcate sensitivity and sensibility towards the spirit of Indian Art and Craft	<b>PO4</b>



		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self -Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental Tasks</b>	<b>Diverse Needs:</b>	<b>Research and Entrepreneurial Skills:</b>
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED218A	Arts in Education			3	3	3		3					3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>Programme and Course Mapping</b>														
<b>C</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>
<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>O</b>	<b>S</b>	<b>S</b>	<b>S</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>	<b>9</b>	<b>10</b>	<b>11</b>	<b>O</b>	<b>O</b>	<b>O</b>
<b>C</b>					<b>3</b>								<b>3</b>	
<b>O</b>			<b>3</b>											
<b>1</b>							<b>3</b>							
<b>C</b>				<b>3</b>										
<b>O</b>														
<b>2</b>														
<b>C</b>														
<b>O</b>														
<b>3</b>														
<b>C</b>														
<b>O</b>														
<b>4</b>														

1=lightly mapped

2= moderately mapped

3=strongly mapped

<b>Unit I</b>	<b>Appreciation of Art</b>
Local	Identification of different performing styles and its artists; dance, music, theatre, puppetry, etc. (based on a set of slides, selected for the purpose).
Regional	Understanding Craft Traditions of India and its relevance in education (based on a set of slides, selected for the purpose); traditional crafts as a pedagogy assimilating all sciences and social sciences.
National	Understanding Craft Traditions of India and its relevance in education (based on a set of slides, selected for the purpose); traditional crafts as a pedagogy assimilating all sciences and social sciences.
Global	Knowledge of Indian Art – from earliest to the contemporary; Visual Arts (based on a set of slides, selected for the purpose), looking at paintings, sculptures, architecture/ monuments as sources and indicators to know the historical, political, social, scientific and technological development perspectives during different periods.
Employability	Visual Arts
Entrepreneurship	looking at paintings, sculptures, architecture/ monuments
Skill Development	Indian festivals and fairs, the traditions and their significance,
Professional Ethics	traditional crafts as a pedagogy assimilating all sciences and social sciences.
Gender	
Human Values	the spirit of celebrations as a social phenomenon.
Environment & Sustainability	traditional crafts as a pedagogy assimilating all sciences and social sciences.
<b>Unit II</b>	<b>Visual Art and Craft</b>
Local	Hands on experience of working in different media and materials (drawing, painting, clay modeling, collage making etc. with pencil, pen, crayons, dry and water colours, clay, paper, etc.),
Regional	methods and techniques (block printing, collage making, clay modeling, relief work, heritage crafts etc.) to learn visual art processes and its pedagogical aspects related to other subject areas.
National	Exploring arts in education as a pedagogy across school curriculum and identifying themes and concepts for integrated learning for arts.

Global	Exploring arts in education as a pedagogy across school curriculum and identifying themes and concepts for integrated learning for arts.
Employability	methods and techniques (block printing, collage making, clay modeling, relief work, heritage crafts etc.)
Entrepreneurship	methods and techniques (block printing, collage making, clay modeling, relief work, heritage crafts etc.)
Skill Development	Preparation and presentation techniques for effective classroom learning by developing aids and making the school environment aesthetically viable using artifacts and displays.
Professional Ethics	Hands on experience of working in different media and materials
Gender	
Human Values	making the school environment aesthetically viable using artifacts and displays.
Environment & Sustainability	Preparation and presentation techniques for effective classroom learning by developing aids and making the school environment aesthetically viable using artifacts and displays.
Unit III	<b>Performing Art: Dance, Music, Theatre and Puppetry</b>
Local	Listening/viewing and exploring regional music, dance, theatre and puppetry will help student-teachers in contextualizing different art forms and relating them with various concepts across the curriculum.
Regional	Planning a stage-setting for a performance, presentation and participation by the student-teachers in any one of the regional performing art forms keeping integrated approach of all art forms with other subjects is recommended.
National	Drama in education; learning is enhanced through drama in education; it enhances communication skills and develop personality and self.
Global	
Employability	Adaptation of different texts and concepts or themes from the curricular areas to be practiced by student-teachers.
Entrepreneurship	Planning a stage-setting for a performance, presentation and participation by the student-teachers
Skill Development	Drama in education; learning is enhanced through drama in education; it enhances communication skills and develop personality and self.
Professional Ethics	Planning a stage-setting for a performance, presentation and participation by the student-teachers
Gender	
Human Values	Listening/viewing and exploring regional music, dance, theatre and

	puppetry will help student-teachers in contextualizing different art forms and relating them with various concepts across the curriculum.
Environment & Sustainability	
SDG	<b>Ensure significant mobilization of resources from a variety of sources..Quality primary/ Secondary Education for all Skills for Decent Work</b> <b>Safe and Inclusive Learning Environments</b> <b>Professional Development of Teachers</b>
NEP 2020	Curtailling Dropout Rates and Ensuring Universal Access to Education at All Levels Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging Teachers Equitable and Inclusive Education: Learning for All Towards a More Holistic and Multidisciplinary Education Optimal Learning Environments and Support for Students Motivated, Energized, and Capable Faculty Teacher Education Re-imagining Vocational Education Promotion of Indian Languages, Arts & culture
POE/4 <sup>th</sup> IR	<b>Cross cultural programmes</b> <b>Technical Skills that match Industry Needs</b> <b>Focus on Employability Skills (Local/Regional and Global)</b> <b>Team Work</b> <b>Simulations</b>

<b>SEED220A</b>	<b>Yoga Education</b>	L	T	P	C
<b>Version 2.0</b>		0	0	2	1
<b>Pre-requisites/Exposure</b>	Health and its different aspects				
<b>Co-requisites</b>	--				

### Course Objectives:

The course will enable the student-teachers to:

- Record a brief history and development of Yoga through the ages.
- Discuss how Yoga and Yoga practices are important for healthy living.
- Explain some important principles of Yoga.
- State the different types of Yoga.
- Explain the different limbs of Aṣṭāṅga Yoga of Patanjali & Haṭha Yoga.
- Establish a relationship between Haṭha Yoga and Aṣṭāṅga Yoga of Patañjali.
- Explain the benefits of śaṭkarma in developing a humane psycho-physical body.
- Demonstrate some important āsanās, and prāṇāyāma.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

- CO1.** Understand the knowledge about the theory and practice of Yoga and its nature, scope, development of yoga through the ages and different types of yoga.
- CO2.** Practice mental and physical hygiene.
- CO3.** Maintain good mental and physical health along with emotional stability.
- CO4.** Attain higher level of consciousness.
- CO5.** Understand the knowledge of Kriyas, Asanas, Mudras, Bandas, Pranayama and meditative postures and their relevance for gaining sound mind and healthy body.

### Catalogue Description

Yoga Education has become as an essential component in all teacher education curriculum. Yoga has its roots in ancient Indian culture and civilization aiming at a fuller development of human personality, impacting upon its different dimensions and facets – the individual and

social, emotional, cognitive, psychomotor, behavioural, and eventually moral and spiritual. Yoga, if regularly and properly practised, can transform an individual into a vibrant personality, full of energy and enthusiasm. It can be a source of peace, poise and tranquility. It can also build resistance against diseases, improve holistic health, and can also help us to sharpen our memories, thus resulting in better concentration and a creative mind. It is for this reason that the teachers and teacher educators need to be initiated into the field of Yoga, which is recognized, accepted and practiced the entire world over as a way of life. Second, it is a truism that for spreading the messages of Yoga and making it a mass movement, no other agency except that of teachers can be most effective; therefore, inclusion of Yoga education in teacher education cannot be over emphasized.

So, in view of the educational significance of Yoga education, it is incorporated in teacher education curriculum. The curriculum lays emphasis on practical aspects of the Yoga i.e. Asanas, Pranayamas, Bandhas and Mudras. It also includes time spent on performing other cognitive or practical activities as mentioned in the text.

## **Course Content**

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### **Unit I**

**05 Contact Hours**

- Yoga: meaning and initiation
  - Definitions of Yoga
  - Misconceptions about Yoga
  - Basis of Yoga
- Origin and history of development of Yoga
  - Psychological aspects leading to origin of Yoga
  - Yoga in medieval times
  - Yoga in modern times
- The two schools of Yoga: Raja Yoga and Hatha Yoga ,Yogic practices for healthy living.

### **Unit II**

**05 Contact Hours**

- Historicity of Yoga as a discipline
- Classification of Yoga and Yogic texts

- a) Yogasūtra of Patañjali
- b) Haṭha Yoga texts
- Understanding Aṣṭāṅga Yoga of Patañjali
- Haṭha Yogic practices
  - Āsanās
  - Pranayama, eight kumbhakas
  - Dhāraṇā on five elements
  - Mudras and bandhas
  - Śaṭkarma, the set of six cleansing techniques
- Relationship between Pātañjala Yoga and Haṭha Yoga
- Meditational processes in Pātañjala Yoga Sūtra

### Unit III

**05 Contact Hours**

- Need of Yoga for positive health
- Role of mind in positive health as per ancient Yogic literature
- Concept of health, healing and disease: Yogic perspectives
  - Concept of health and diseases
  - Concepts of triguṇa and pañcakoṣa vis-à-vis holistic health
- Potential causes of ill health
- Yogic principles of healthy living (āhāra, vihāra, ācāra, vicāra)
- Integrated approach of Yoga for management of health
- Stress management through Yoga and Yogic dietary considerations
- How stress is alleviated through Yoga?
- Prāṇa-samyamana (canalization of energy dynamics) through dietary considerations
- Rationale of Yogic diet.

## Unit IV: Practicum

05 Contact Hours

### A. General guidelines for performance of the practice of Yoga for the beginners (any one)

- Guidelines for the practice of ṣaṭ kriyās
- Guidelines for the practice of āsanās
- Guidelines for the practice of prāṇāyāma
- Guidelines for the practice of kriyā Yoga
- Guidelines for the practice of meditation

### B. Select Yoga practices for persons of average health for practical Yoga sessions (any one)

- Standing position
- Sitting position
- Prone position
- Supine position
- Kriyās
- Mudrās
- Prāṇāyāmas

## Time Frame

Each student will be required to attend all workshops over one semester.

## Suggested Text Books

1. Kalyan (Yoga Tatwank)-Gita press Gorakhpur, 1991.
2. Kalyan (Yogank)- Gita press Gorakhpur, 2002.
3. Kamakhya Kumar -Yoga Mahavigyan, Standard publisher, New Delhi.
4. Rajkumari Pandey-Bhartiya Yoga Parampara ke Vividh Ayam, radha publication, ND, 2008
5. Swami Vivekanand - Jnan, Bhakti, Karma yoga & Rajyoga, Advait Ashram, Culcutta 2000.
6. Vijnananand Saraswati - Yog Vijyan, Yoga nicketan trust, Rishikesh, 1998.

## Advanced Readings

1. K.S. Joshi - Yoga in Daily Life, Orient paper back publication, New Delhi, 1985.



2. S.P. Sing-History of Yoga-PHISPC,Center for studies of civilization Ist 2010
3. S.P.Singh & Yogi Mukesh-Foundation of Yoga, Standard publisher, New Delhi 2010.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the knowledge about the theory and practice of Yoga and its nature, scope, development of yoga through the ages and different types of yoga.	<b>PO11</b>
<b>CO2</b>	Practice mental and physical hygiene.	<b>PO7</b>
<b>CO3</b>	Maintain good mental and physical health along with emotional stability.	<b>PO10</b>
<b>CO4</b>	Attain higher level of consciousness.	<b>PO4</b>
<b>CO5</b>	Understand the knowledge of Kriyas, Asanas, Mudras, Bandas, Pranayama and meditative postures and their relevance for gaining sound mind and healthy body	<b>PO11</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Development	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED220A	Physical, Health and Yoga Education				3			3			2	2	2	2	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1											2			
C O 2							3						3	
C O 3										2				
C O 4				3										
C O 5											2			
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>Unit I</b>	
<b>Local</b>	Yoga: meaning and initiation Definitions of Yoga
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	<ul style="list-style-type: none"> <li>• Origin and history of development of Yoga</li> <li>• Psychological aspects leading to origin of Yoga</li> </ul>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<ul style="list-style-type: none"> <li>• Misconceptions about Yoga</li> <li>• Basis of Yoga</li> <li>• The two schools of Yoga: Raja Yoga and Hatha Yoga ,Yogic practices for healthy living.</li> </ul>
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	•The two schools of Yoga: Raja Yoga and Hatha Yoga ,Yogic practices for healthy living.
<b>Environment &amp; Sustainability</b>	<ul style="list-style-type: none"> <li>• Misconceptions about Yoga</li> <li>• Basis of Yoga</li> <li>• Yoga in medieval times</li> <li>• Yoga in modern times</li> </ul>
<b>Unit II</b>	
<b>Local</b>	• Understanding Aṣṭāṅga Yoga of Patañjali
<b>Regional</b>	
<b>National</b>	• Historicity of Yoga as a discipline
<b>Global</b>	• Historicity of Yoga as a discipline
<b>Employability</b>	<ul style="list-style-type: none"> <li>• Classification of Yoga and Yogic texts</li> <li>• Yogasūtra of Patañjali</li> <li>• Haṭha Yoga texts</li> <li>•</li> </ul>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<ul style="list-style-type: none"> <li>• Classification of Yoga and Yogic texts</li> <li>a) Yogasūtra of Patañjali</li> <li>b) Haṭha Yoga texts</li> <li>• Relationship between Pātañjala Yoga and Haṭha Yoga</li> <li>• Meditational processes in Pātañjala Yoga Sūtra</li> </ul>
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	<ul style="list-style-type: none"> <li>• Haṭha Yogic practices</li> <li>• Āsanās</li> <li>• Pranayama, eight kumbhaka</li> <li>• Dhāraṇā on five elements</li> <li>• Mudras and bandhas</li> <li>• Śaṭkarma, the set of six cleansing techniques</li> </ul>
<b>Unit III</b>	

<b>Local</b>	• Need of Yoga for positive health
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	<ul style="list-style-type: none"> <li>• Yogic principles of healthy living (āhāra, vihāra, ācāra, vicāra)</li> <li>• Integrated approach of Yoga for management of health</li> <li>• Prāṇa-saṁyamana (canalization of energy dynamics) through dietary considerations</li> <li>• Rationale of Yogic diet.</li> </ul>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<ul style="list-style-type: none"> <li>• Potential causes of ill health</li> <li>• How stress is alleviated through Yoga?</li> <li>• Stress management through Yoga and Yogic dietary considerations</li> </ul>
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	<ul style="list-style-type: none"> <li>• Role of mind in positive health as per ancient Yogic literature</li> <li>• Concept of health, healing and disease: Yogic perspectives</li> <li>• Concept of health and diseases</li> <li>• Concepts of triṅga and pañcakoṣa vis-à-vis holistic health</li> <li>• Potential causes of ill health</li> </ul>
<b>Unit IV</b>	Practicum
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	
<b>Employability</b>	<ul style="list-style-type: none"> <li>• Guidelines for the practice of ṣaṭ kriyās</li> <li>• Guidelines for the practice of āsanas</li> <li>• Guidelines for the practice of prāṇāyāma</li> <li>• Guidelines for the practice of kriyā Yoga</li> <li>• Guidelines for the practice of meditation</li> </ul>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<ul style="list-style-type: none"> <li>• Guidelines for the practice of ṣaṭ kriyās</li> <li>• Guidelines for the practice of āsanas</li> <li>• Guidelines for the practice of prāṇāyāma</li> <li>• Guidelines for the practice of kriyā Yoga</li> <li>• Guidelines for the practice of meditation</li> </ul>
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp;</b>	<ul style="list-style-type: none"> <li>• Standing position</li> </ul>

<b>Sustainability</b>	<ul style="list-style-type: none"> <li>• Sitting position</li> <li>• Prone position</li> <li>• Supine position</li> <li>• Kriyās</li> <li>• Mudrās</li> <li>• Prāṇāyāmas</li> </ul>
<b>SDG</b>	<b>" Quality education for all Professional Development of Teachers Early Childhood/ Pre-Primary Education for all Skills for Decent Work "</b>
<b>NEP 2020</b>	<b>"Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)Optimal Learning Environments and Support for Students (12.1-12.10) Motivated, Energized, and Capable Faculty (13.1-13.7) Re-imagining Vocational Education (16.1-16.7) "</b>
<b>POE/4<sup>th</sup> IR</b>	<b>"Skill Development Employability Skill Embedded Courses Development Hands-on Experience Projects "</b>

<b>SEED222A</b>	<b>UNDERSTANDING THE SELF</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Recall their life experiences				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- Gain an understanding of the central concepts in defining self and identity.
- Reflect critically on factors that shape the understanding of self.
- Build an understanding about themselves, i.e. the development of self as a person as well as a teacher.
- Reflect on one's experiences, aspirations and efforts towards becoming a humane individual and teacher.
- Develop effective communication skills including the ability to listen, observe etc.
- Build resilience within themselves to deal with conflicts at different levels and learn to draw upon collective strengths to live in harmony with one's surroundings.
- Appreciate the critical role of teachers in promoting self and students' well-being.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1** Aware about self-identity and understand philosophical and cultural perspectives as a teacher.

**CO2.** Understand about values and professional ethics as a teacher.

**CO3** Learn about their strength and weaknesses.

### Catalogue Description

What is self? Is self the experience of internal talk? What characterizes —self-lessness? Can identities change? Will the identity of a first generational learner belonging to a family of migrant labourer change when she is identified as a gifted child? What are the influences of parents and peers on the identity of a learner?

The above questions and many more similar questions trigger the exploration and need to understand the self\*. This course provides opportunity to the student-teachers to gain an understanding about their own self both as an individual and as a student-teacher.

Developing an understanding of the self is essential for an individual to utilise her/his optimal potential for the benefit of one's own self as well for the society. As individuals in the society student-teachers are integral part of it. As an integral member of the society an individual has various identities – gender, relational, linguistic, cultural etc. and it is essential to understand and address one's implicit beliefs, stereotypes and prejudices resulting from these identities. The student-teachers need to become aware of their own selves and their identities as well as the political, historical, and socio-cultural forces that shape them. The course thus provides an interdisciplinary view in the development of the understanding of one's own self. This exploration and understanding will enable the student-teachers to develop sensibilities, dispositions, and skills that will help in their personal and professional development and facilitate the personal growth of their students.

## **Course Content**

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### **Unit I: 10 Contact Hours**

#### **Meaning and Concept Understanding of Self**

- Reflections and critical analysis of one's own self and identity
- Identifying factors in the development of self and in shaping identity
- Building an understanding about philosophical and cultural perspectives of Self and
- Developing an understanding of one's own philosophical and cultural perspectives as a teacher

### **Unit II: 10 Contact Hours**

#### **Development of Professional Self and Ethics**

- Understanding and sharing one's identity and socio-cultural, historical and political influences in shaping the professional identity
- Exploring, reflecting and sharing one's own aspirations, dreams, concerns and struggles in becoming a teacher
- Reflections on experiences, efforts, aspirations, dreams etc. of peers

- Building an understanding about values and professional ethics as a teacher to live in harmony with one 's self and surroundings
- Understanding the role of teacher as facilitator and partner in well-being among learners.

**Unit III: 3 Contact Hours**

**Role of Teacher in Developing Understanding of Self among Learners**

- Reflecting on one's own childhood and adolescent year of growing-up
- Facilitating development of awareness about identity among learners
- Developing skills of effective listening, accepting, positive regard etc. as a facilitator

**Unit IV: 2 Contact Hours**

**Practicum (Any Two)**

- Developing self-awareness as a teacher (individual/group activity)
- Exploring the known and unknown self in relation to what one and others know about one self and what others do not know (individual activity)
- Reflecting , recording and sharing of critical moments in one's life (individual activity and presentations)
- Reflections on critical moments in the lives of peers (small group activity)
- Exploring one's strengths, weaknesses, opportunities and threats (SWOT analysis)
- Reflecting on likes, hopes, fears and pleasures through sentence completion exercises (individual activity)
- Group activities involving community participation
- Practising selected *asanas, pranayam, meditation and yogic kriyas* as prescribed in class VI to X syllabus of Health and Physical Education, NCERT.

**Mode of Transaction**

- The course will be transacted in workshop mode through individual and group experiential activities such as
- Personal narratives and storytelling, life stories, group interactions, film reviews to help explore one's self and identity. Student-teachers to engage in varied forms of self-expression such as poetry, painting and creative movements, humour, aesthetic representations,etc.



- Sharing of case studies by student-teachers, critical analysis of biographies and presentations, group readings and sessions on stories of different children who are raised in different circumstances and how this affects self and their personal and social identityformation.
- Reflective discussions on films/documentaries where the protagonist undergoes trials and finally discovers her/hispotential Development of reflective journals/diaries by the student-teachers.
- Introduction of Yoga, meditation as one of the important component to enhance student-teachers understanding of body andmind.

### Advanced Readings

1. Bhattacharjee, D. K. (Ed). (2010). Psychology and Education – Indian Perspectives, NCERT, New Delhi.
2. Dalal, A. S. (Ed.) (2001). A Greater Psychology – An Introduction to the Psychological thoughts of Sri Aurobindo. Puducherry, Sri Aurobindo Ashram
3. Pant, D. and Gulati, S. (2010). Ways To Peace – A Resource Book for Teachers. NCERT, New Delhi

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

### Examination Scheme:

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Aware about self-identity and understand philosophical and cultural perspectives as a teacher.	PO7
CO2	Understand about values and professional ethics as a teacher.	PO
CO3	Learn about their strength and weaknesses.	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED222A	Understanding the self			3	3	3		3					3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1							3							
C O 2												3		
C O 3			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>SEED224A</b>	<b>SCHOOL ATTACHMENT AND COMMUNITY LIVING</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Skills of observing the surroundings				
<b>Co-requisites</b>	--				

### Course Objectives

The student- teachers will be able to:

- Observe various curricular and co-curricular activities of the schools.
- Develop observation schedule of the various school and community activities.
- Prepare a detailed report of the programme and present it individually and/or in group.

### Course Outcomes

On the completion of course the student-teachers will be able to:

**CO1.** Enhance the skills of observation through the exposure of school and community visit.

**CO2.** Interpret the observations of school and community activities into the observation schedule.

**CO3.**Project the detailed report on school –community connects at their Institute.

### Course Content

#### A. School Attachment Programme

Duration: 1 week

One week School Attachment Programme shall be carried out during the second semester in local/nearby school (s). The students will be allotted schools in the vicinity of the university. Care will be taken to identify various types of school for the programme, e.g. Government, Private, Urban, Rural, and Special Schools.

During this programme, the student-teachers shall observe: (i) various curricular activities, e.g. sports and games, dance, songs; and (ii) the teaching-learning process in the classroom, ICT use, student participation, classroom management. The student-teachers shall observe curricular activities for which they may use observation schedules. The institute shall develop these schedules; and orient the student-teachers on the process of observation as well as use of

the schedules. At the end of the programme, student-teachers shall be required to develop a detailed report and share the same in a seminar/meeting at the Institute.

### **B. Community Living**

Duration: 1 week

Student-teachers shall be provided exposure to community life for at least one week during which they shall spend time with the community members and act in terms of preparing school development plan, sharing cultural practices, holding cultural programmes, safety education and gaining community's perception about and aspirations from formal education system.

At the end of this programme, the student-teachers shall prepare a detailed report of the programme, individually and/or in group.

### **Advanced Readings:**

1. Marinac, M. (2011). Handbook for student/student-teacher teaching, University of Wisconsin Stevens Point
2. Scott M. et al. (2011). Student-teacher Student-teachers School attachment and Mentor Teacher Handbook. *Wakulla County School*.
3. Wheeler, E. (2010). Master of Arts in Teaching Student-teacher Student-teachers School attachment Handbook for Student-teacher Student-teachers and Mentors. *Towson University College of Education*.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

### **Examination Scheme:**

<b>Components</b>	<b>Internal Practical Examination</b>	<b>Internal Practical Examination</b>
<b>Weightage (%)</b>	<b>50</b>	<b>50</b>

### **Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>
------------------------------------

	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Enhance the skills of observation through the exposure of school and community visit.	PO9
CO2	Interpret the observations of school and community activities into the observation schedule.	PO3
CO3	Project the detailed report on school –community connect at their Institute.	PO7

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Technology Skills	Professional Competencies	General and Specific Need &	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial	
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 224A	School Attachment Programme and Community Living			3				3		3			3		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
CO1									3					
CO2			3										3	
CO3							3							
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>SEED226A</b>	<b>ENGLISH II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Communication Skills				
<b>Co-requisites</b>	--				

**\*Liberal Course (Optional II)**

**Course Objectives**

The student-teachers will be able to:

- Develop English language skills in listening, speaking, reading and writing.
- Be well versed in the use of strategies, such as contextualization of new vocabulary, use of previewing, skimming and scanning techniques
- Develop the knowledge of text organization and discourse markers.
- Aid the comprehension of written and spoken language.
- Demonstrate an understanding of the pragmatic function of English language.

**Course Outcomes**

On the completion of the course student-teachers will be able to:

**CO1.** Identify different components of language skills in daily life

**CO2.** Produce complex sentences by using new vocabulary, previewing, skimming and scanning technique.

**CO3.** Visualize the Pragmatic understanding of English Language for classroom teaching

**Catalogue Description**

This course contains a Course Overview of the role and function of English language in everyday life. It aims to equip the students on English competence required for reading, writing, listening and speaking. It endeavors to expand the learner's use of grammatically correct and situationally and culturally appropriate language in speaking and writing for

effective communication in a variety of interpersonal and academic situations.

## Course Content

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### Unit I

**10 Contact Hours**

#### Introduction to English Language

- Role and significance of English language in the present scenario English Language
- Its relevance for the Indian industry
- Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class

### Unit II

**15 Contact Hours**

#### Phonetics & Functional Grammar

- Pronunciation and daily usage correction
- Parts of speech, articles, tenses, verbs and modals
- Practice of daily use words, numerals and tongue twisters
- Vocabulary building
- Construction of simple sentences: Basic sentence pattern, subject and Predicate

### Unit III

**15 Contact Hours**

#### Vocabulary: Building Blocks

- Word Formation: Prefix, suffix, conversion and compounding
- Homophones and one-word substitution
- Words often confused and misused
- Idiomatic phrase, Antonyms and Synonyms

### Unit IV

**10 Contact Hours**

#### English Language Teaching

- Different Methods: GT Method, Direct Method, CLT Method
- Approach, Method and Techniques, Classroom Strategies.

**Suggested Text Books:**

1. Yule, G. (2006). *The study of language*. Cambridge, UK: Cambridge University Press.

**Advanced Readings:**

1. ILFS Bi-lingual Course in Basic English. *ILFS Skill Development Corporation*.
2. Nesfield, J. C. *English Grammar Composition & Usage*. *Macmillan Publishers*.
3. Richards, J. C., & Rodgers, T. S. (2001). *Approaches and Methods in Language Teaching*. *Cambridge University Press, Cambridge*.

**Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Identify different components of language skills in daily life	PO1
CO2	Produce complex sentences by using new vocabulary, previewing, skimming and scanning technique.	PO9
CO3	Visualize the Pragmatic understanding of English Language for classroom	PO1



		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 226A	English II	3								3				3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3	
	3														
								3					3		
	3														
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															

Unit I	Introduction to English Language
Local	<ul style="list-style-type: none"> <li>• Role and significance of English language in the present scenario English Language</li> <li>• Its relevance for the Indian industry</li> <li>• Introduction to Listening, Speaking, Reading, Writing</li> </ul>

	(LSRW) and benchmarking of the class
Regional	-
National	<ul style="list-style-type: none"> <li>• Role and significance of English language in the present scenario English Language</li> <li>• Its relevance for the Indian industry</li> <li>• Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Role and significance of English language in the present scenario English Language</li> <li>• Its relevance for the Indian industry</li> <li>• Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Role and significance of English language in the present scenario English Language</li> <li>• Its relevance for the Indian industry</li> <li>• Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Role and significance of English language in the present scenario English Language</li> <li>• Its relevance for the Indian industry</li> <li>• Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Role and significance of English language in the present scenario English Language</li> <li>• Its relevance for the Indian industry</li> <li>• Introduction to Listening, Speaking, Reading, Writing (LSRW) and benchmarking of the class</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Phonetics &amp; Functional Grammar</b>
Local	<ul style="list-style-type: none"> <li>• Pronunciation and daily usage correction</li> <li>• Parts of speech, articles, tenses, verbs and modals</li> <li>• Practice of daily use words, numerals and tongue twisters</li> <li>• Vocabulary building</li> <li>• Construction of simple sentences: Basic sentence pattern, subject and Predicate</li> </ul>
Regional	
National	
Global	<ul style="list-style-type: none"> <li>• Pronunciation and daily usage correction</li> <li>• Parts of speech, articles, tenses, verbs and modals</li> <li>• Practice of daily use words, numerals and tongue twisters</li> <li>• Vocabulary building</li> <li>• Construction of simple sentences: Basic sentence pattern,</li> </ul>

	subject and Predicate
Employability	<ul style="list-style-type: none"> <li>• Pronunciation and daily usage correction</li> <li>• Parts of speech, articles, tenses, verbs and modals</li> <li>• Practice of daily use words, numerals and tongue twisters</li> <li>• Vocabulary building</li> <li>• Construction of simple sentences: Basic sentence pattern, subject and Predicate</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Pronunciation and daily usage correction</li> <li>• Parts of speech, articles, tenses, verbs and modals</li> <li>• Practice of daily use words, numerals and tongue twisters</li> <li>• Vocabulary building</li> <li>• Construction of simple sentences: Basic sentence pattern, subject and Predicate</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Pronunciation and daily usage correction</li> <li>• Parts of speech, articles, tenses, verbs and modals</li> <li>• Practice of daily use words, numerals and tongue twisters</li> <li>• Vocabulary building</li> <li>• Construction of simple sentences: Basic sentence pattern, subject and Predicate</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Vocabulary: Building Blocks</b>
Local	<ul style="list-style-type: none"> <li>• Word Formation: Prefix, suffix, conversion and compounding</li> <li>• Homophones and one-word substitution</li> <li>• Words often confused and misused</li> <li>• Idiomatic phrase, Antonyms and Synonyms</li> </ul>
Regional	
National	<ul style="list-style-type: none"> <li>• Word Formation: Prefix, suffix, conversion and compounding</li> <li>• Homophones and one-word substitution</li> <li>• Words often confused and misused</li> <li>• Idiomatic phrase, Antonyms and Synonyms</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Word Formation: Prefix, suffix, conversion and compounding</li> <li>• Homophones and one-word substitution</li> <li>• Words often confused and misused</li> <li>• Idiomatic phrase, Antonyms and Synonyms</li> </ul>

Employability	<ul style="list-style-type: none"> <li>• Word Formation: Prefix, suffix, conversion and compounding</li> <li>• Homophones and one-word substitution</li> <li>• Words often confused and misused</li> <li>• Idiomatic phrase, Antonyms and Synonyms</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Word Formation: Prefix, suffix, conversion and compounding</li> <li>• Homophones and one-word substitution</li> <li>• Words often confused and misused</li> <li>• Idiomatic phrase, Antonyms and Synonyms</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Word Formation: Prefix, suffix, conversion and compounding</li> <li>• Homophones and one-word substitution</li> <li>• Words often confused and misused</li> <li>• Idiomatic phrase, Antonyms and Synonyms</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>English Language Teaching</b>
Local	<ul style="list-style-type: none"> <li>• Different Methods: GT Method, Direct Method, CLT Method</li> <li>• Approach, Method and Techniques, Classroom Strategies</li> </ul>
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Different Methods: GT Method, Direct Method, CLT Method</li> <li>• Approach, Method and Techniques, Classroom Strategies</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Different Methods: GT Method, Direct Method, CLT Method</li> <li>• Approach, Method and Techniques, Classroom Strategies</li> </ul>
Skill Development	<ul style="list-style-type: none"> <li>• Different Methods: GT Method, Direct Method, CLT Method</li> <li>• Approach, Method and Techniques, Classroom Strategies</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Different Methods: GT Method, Direct Method, CLT Method</li> <li>• Approach, Method and Techniques, Classroom Strategies</li> </ul>
Gender	
Human Values	
Environment & Sustainability	

SDG	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (SDG 4.1) Professional Development of Teachers (SDG 4.c) Language Skills activity
NEP 2020	Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (NEP 4.1 - 4.46)
POE/4 <sup>th</sup> IR	Technical Skills that match Industry Needs, Focus on Employability Skills (Local/Regional and Global), Prepared the hands-on activities on each Methods, Approaches and Techniques in English Language Teaching

<b>SEED228A</b>	<b>Hindi II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic Knowledge of Hindi Bhasha and Literature				
<b>Co-requisites</b>	--				

## Course Objectives

### इस पाठ्यक्रम का उद्देश्य है,

- मध्यकालीन अर्थात् भक्तिकाल और रीतिकाल के प्रतिनिधि कवियों के प्रमुख रचनाओं का अध्ययन करना।
- भारतेंदु युग और द्विवेदी काव्य का समेकित अध्ययन करना।
- स्वच्छंदतावाद अथवा छायावादी काव्य की प्रमुख प्रवृत्तियों एवं कवियों की प्रतिनिधि रचनाओं का अध्ययन करना।
- प्रगतिवादी एवं प्रयोगवादी काव्य परंपरा एवं प्रतिनिधि रचनाओं का अध्ययन करना।

## Course Outcomes

इस कोर्स के पूरा होने के परिणामतः छात्र निम्नलिखित ज्ञान प्राप्त कर पाएंगे:

**CO1:** प्रस्तुत पाठ्यक्रम के अध्ययन के पश्चात् विद्यार्थी अपने शैक्षिक करियर में समुचित तरीके से हिंदी साहित्य के ज्ञान से अपने विद्यार्थियों को अवगत करवाने में दक्षता प्राप्त कर चुके होते हैं।

**CO2:** साहित्य का अध्ययन विद्यार्थियों को एक नैतिक और समुचित सामाजिक जीवन जीने को प्रेरित करता है। मनुष्य के सामाजिक जीवन को साथ साथ लेकर चलते हुए उसका मार्गदर्शन करना साहित्य अपना कलेवर है।

**CO3:** साहित्यिक ज्ञान प्राप्त करने के बाद विद्यार्थी को एक अलग उत्साह और ज्ञानलोक देखा जा सकता है, जिससे वो दूसरों को ज्ञानलोकित करने में भी आत्मिक आनंद का अनुभव करते हैं।

**CO4:** साहित्य अध्ययन के पश्चात् व्यक्ति की विचार शक्ति, सम्प्रेषण शैली और साथ ही साथ शिक्षण विधि परिष्कृत हो जाती है। वह जीवन को समझने में मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान बनता है।

## Catalog Description

भक्तिकाल को हिंदी साहित्य का स्वर्णकाल कहा गया है। साहित्य की दृष्टि हो या भाषा की मध्यकाल अपने चरमतम बिंदु पर रहा। सरस ब्रज और सरल लयात्मक अवधी का मणिकांचन संयोग विशेषतः

भक्तिकाल की विशेषता है। विद्वानों के अनुसार तत्कालीन सामाजिक, राजनीतिक और सांस्कृतिक हलचलों के बीच भक्ति का उत्कर्ष विशेषतः एक बड़े कालखंड का हिंदी साहित्य को अनुदान है। कबीर के ज्ञान मार्ग, जायसी के प्रेम मार्ग, मीरा के माधुर्य जन्य कृष्ण प्रेम, सूर के लीलाधारी कृष्ण की भक्ति और तुलसी के मर्यादापुरुषोत्तम राम के भक्तिरस में संतृप्त पूरा भक्तिकाल संस्कृति और संस्कार का एक अक्षय ज्योति पुंज है, जहां ज्ञान, विज्ञान, दर्शन, समाज और राजनीति का समेकित और गहन अध्ययन है।

वहीं ब्रज भाषा द्वारा प्रभावित रीतिकाल में जहां एक ओर साहित्यिक कला का सौंदर्य दर्शनीय है वहीं बिहारी के नीति, श्रृंगारी पदों के साथ आगे बढ़ते हैं तो रीतिमुक्त धारा में घनानन्द के सात्विक प्रेम के पीर की अद्वितीय व्यंजना स्पष्टतः द्रष्टव्य है।

रीतिकाल के बाद ब्रज भाषा में काव्य और गद्य के बीच रचनाओं का आरम्भ हुआ, सामाजिक सांस्कृतिक और राजनीतिक परिस्थितियों के बदलने के साथ साथ साहित्य में भी वैचारिक, कलेवर में, विधाओं का तथा सबसे ऊपर भाषा के संक्रमण काल का वीजवपन हुआ। भारतेन्दु युग, भारतेन्दु बाबू के साथ बसंभुर्ण भारतेन्दु मंडल की कालजयी रचनात्मकता द्वारा अभिग्रहित विभिन्न विधाओं के आरंभ का काल था। द्विवेदी युग खड़ी भषा के परिष्कार का युग था - नायक हुए, आचार्य महावीर प्रसाद द्विवेदी। देशप्रेम और इतिवृत्तात्मकता के संयोग का लगभग दो दशकीय युग के बाद, स्वच्छंदतावाद, रहस्यवाद और अंतःकरण के भावों की अद्भुत अभिव्यंजना शैली लिए हुए छायावाद का आविर्भाव हुआ। यहां जीवन भावों के अगाध समुद्र में गोतालगाता रहा। आधुनिक हिंदी साहित्य का स्वर्णकाल था यह।

फिर समाज में मार्क्सवाद के सिद्धांत से पुष्पित पल्लवित प्रगतिवाद का अविर्भाव हुआ, जहाँ शोषक वर्ग का हिमायती बना कवि सामाजिक सामंती व्यवस्था कर साहित्यिक छंदों की बानी बनायी परिपाटी को त्याग एक ओर तो शोषित वर्ग के साथ खड़ा दिखाई देता है, दूसरी ओर वह तुकबंदी का अतिक्रमण करते हुए मुक्त छंद की नयी परिपाटी व्यवस्थित करता है और सामंतवादी विचारधारा के विरोध में विप्लव के - क्रांति के बादलों का आवाहन करता नजर आता है। इन वीथियों से गुजरते हुए, आम आदमी के बीच में ही रहते हुए - जनवादी काव्य साहित्य की एक नयी धारा प्रयोगवाद में विलीन होने लगती है। साहित्य के इन्ही वीथियों से गुजरते हुए छात्र हिंदी साहित्य के विभिन्न विधाओं और परम्पराओं का अध्ययन करता है। क्योंकि साहित्य जीवन का ही अनुसरणकर्ता होता है, अतः हिंदी साहित्य जीवन के विविध रूपों का अनुभव अध्ययनकरता को को देता चलता है।

## Course Content

### Unit I:

16 Contact Hours

#### मध्यकालीन काव्य (भक्तिकाल व रीतिकाल )

- पूर्वमध्यकाल (भक्तिकाल ) के निम्नलिखित कवियों की कुछ प्रतिनिधि रचनाएँ

1. कबीर (पद संख्या 1 से 10)
2. जायसी "नागमती वियोगवर्णन" (पद संख्या 1 से 5 )
3. तुलसी रामचरित मानस - उत्तरकाण्ड (पद संख्या 1 से 10)
4. सूरदास :भ्रमरगीत सार पद संख्या 21 से 80 तक
5. मीरा दूखण लागै नैन (पद ) सांचोप्रीतम (पद)

उत्तर मध्यकाल (रीतिकाल ) के निम्नलिखित कवियों की कुछ प्रतिनिधि रचनाएँ

1. बिहारी दोहा संख्या (1 से 10) (कवित्तकोष )
2. घनानन्द : वहै मुस्क्यानि , वहै मृदु बतरानि , वहै (कविताकोश)

### Unit II:

10 Contact Hours

#### आधुनिक काल (भारतेन्दु युग , द्विवेदी युग एवं छायावादी काव्य )

(क) पूर्व छायावादी काव्य

## 1. भारतेन्दु युग (नवजागरण काल)

भारतेन्दु :

- ऊधो जो अनेक मन होते
- परदे में कैद औरत की गुहार
- मातृभाषा प्रेम पर दोहे

## 2. द्विवेदी युग :

1. महावीर प्रसाद द्विवेदी : आर्य भूमि
2. अयोध्या सिंह उपाध्याय हरिऔध
  - कर्मवीर
  - आँख का आँसू
3. मैथलीशरण गुप्त
  - उद्धोधन
  - सखी वे मुझसे कहक जाते

**Unit III:**  
**Hours**

**15 Contact**

**छायावादी काव्य (स्वच्छंदतावाद ) की प्रमुख प्रवृत्तियाँ एवं निम्नलिखित कवियों की प्रतिनिधि रचनाएँ :**

1. जयशंकर प्रसाद
  - जग री
  - मेरे नाविक
2. सुमित्रानंदन पंत
  - प्रथम रश्मि
  - द्रुत झरो
3. सूर्यकांत त्रिपाठी 'निराला'
  - तोड़ती पत्थर
  - बदल राग
  - कुकुरमुत्ता
4. महादेवी वर्मा
  - कौन तुम मेरे हृदय में
  - मैं अनंत पथ में लिखती जो
  - क्या पूजा, क्या अर्चन करूँ
5. हरिवंशराय बच्चन (व्यक्ति चेतना प्रधान कवि)
6. बालकृष्ण शर्मा 'नवीन':(राष्ट्रीय चेतना प्रधान कवि)
  - विप्लव गायन
7. रामधारी सिंह 'दिनकर' : (राष्ट्रीय चेतना प्रधान कवि)

**Unit IV:**

**प्रगतिवादी एवं प्रयोगवादी काव्य परंपरा एवं प्रतिनिधि रचनाएँ**

**6 Contact Hours**

1. केदारनाथ अग्रवाल
  - कनबहरे
  - जो जीवन की धूल चाट कर बड़ा हुआ
2. नागार्जुन
  - तीनो बन्दर बापू के
  - बदल को घिरते देखा
3. अज्ञेय
  - कलगी बाजरे की
  - सर्जना के क्षण
4. गजानन माधव 'मुक्तिबोध'
  - ब्रह्मराक्षस
  - मुझे कदम कदम पर

#### Suggested Text Books

3. हिंदी साहित्य का इतिहास - आचार्य रामचंद्र शुक्ल, राजकमल प्रकाशन
4. हिंदी साहित्य का इतिहास - डॉ. नगेन्द्र, राजकमल प्रकाशन

#### Advanced Readings:

1. भ्रमरगीत सार - सं. रामचन्द्र शुक्ल
2. जायसी ग्रन्थावली - नागमती वियोग खंड - सं. रामचन्द्र शुक्ल
3. तुलसीदास - विनय पत्रिका - सं. वियोगी हरि
4. बिहारी सार्धशती - सं. डॉ. ओमप्रकाश
5. घनानंद कवित्त - सं. विष्वनाथप्रसाद मिश्र
6. मीरां संचयन - सं. नंद चतुर्वेदी
7. कबीर ग्रन्थावली - सं. श्यामसुन्दर दास, काशी नागरीप्रचारिणी सभा

**Modes of Evaluation: Modes of Evaluation: Student's performance based on continuous evaluation**

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

8.

#### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	प्रस्तुत पाठ्यक्रम के अध्ययन के पश्चात् विद्यार्थी अपने शैक्षिक करियर में समुचित तरीके से हिंदी साहित्य के ज्ञान से अपने विद्यार्थियों को अवगत	PO1



	करवाने में दक्षता प्राप्त कर चुके होते हैं।	
CO2	साहित्य का अध्ययन विद्यार्थियों को एक नैतिक और समुचित सामाजिक जीवन जीने को प्रेरित करता है। मनुष्य के सामाजिक जीवन को साथ साथ लेकर चलते हुए उसका मार्गदर्शन करना साहित्य अपना कलेवर है।	PO4
CO3	साहित्यिक ज्ञान प्राप्त करने के बाद विद्यार्थी को एक अलग उत्साह और ज्ञानलोक देखा जा सकता है, जिससे वो दूसरों को ज्ञानलोकित करने में भी आत्मिक आनंद का अनुभव करते हैं।	PO5
CO4	साहित्य अध्ययन के पश्चात् व्यक्ति की विचार शक्ति, सम्प्रेषण शैली और साथ ही साथ शिक्षण विधि परिष्कृत हो जाती है। वह जीवन को समझने में मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान बनता है।	PO10

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 228A	Hindi II	3	2	3	3	3	3	2		2	2		2	3	2

Programme and Course Mapping															
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3	
CO1	3										3			2	
CO2		3											3		
CO3						3									
CO4															
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															

Unit I	मध्यकालीन काव्य (भक्तिकाल व रीतिकाल )
Local	कबीर (पद)
Regional	तुलसी रामचरित मानस – उत्तरकाण्ड
National	बिहारी दोहा
Global	
Employability	संशोधन और संपादन
Entrepreneurship	
Skill Development	
Professional Ethics	कविता तकनीकों समझें
Gender	
Human Values	धैर्य
Environment & Sustainability	
Unit II	आधुनिक काल (भारतेन्दु युग , द्विवेदी युग एवं छायावादी काव्य )
Local	भारतेन्दु युग (नवजागरण काल)
Regional	
National	महावीर प्रसाद द्विवेदी : आर्य भूमि
Global	मैथलीशरण गुप्त
Employability	साहित्यिक संगठनों में कार्य
Entrepreneurship	
Skill Development	
Professional Ethics	लेखन संबंधी
Gender	
Human Values	भ्रातृत्व और समरसता के प्रति आदर और प्रेम का संदेश
Environment & Sustainability	
Unit III	छायावादी काव्य (स्वच्छंदतावाद ) की प्रमुख प्रवृत्तियाँ एवं निम्नलिखित कवियों की प्रतिनिधि रचनाएँ :
Local	महादेवी वर्मा
Regional	
National	रामधारी सिंह 'दिनकर'
Global	
Employability	साहित्यिक संगठनों में कार्य
Entrepreneurship	
Skill Development	कॉम्यूनिकेशन कौशल
Professional Ethics	विचारशीलता और सोचने की क्षमता
Gender	
Human Values	सामाजिक समरसता, समानता, और समरसता का समर्थन।
Environment & Sustainability	
Unit IV	प्रगतिवादी एवं प्रयोगवादी काव्य परंपरा एवं प्रतिनिधि रचनाएँ
Local	केदारनाथ अग्रवाल

Regional	
National	नागार्जुन
Global	
Employability	
Entrepreneurship	
Skill Development	समय प्रबंधन
Professional Ethics	सत्य, ईमानदारी, और सच्चाई
Gender	
Human Values	समाज सेवा और न्याय की प्रेरणा। सामाजिक समरसता, समानता, और समरसता का समर्थन। भ्रातृत्व और समरसता के प्रति आदर और प्रेम का संदेश
Environment & Sustainability	
SDG	By 2030, ensure that all girls and boys complete free, equitable and quality primary and secondary education leading to relevant and effective learning outcomes (SDG 4.1) Professional Development of Teachers (SDG 4.c) Language Skills activity
NEP 2020	Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (NEP 4.1 - 4.46)
POE/4 <sup>th</sup> IR	Technical Skills that match Industry Needs, Focus on Employability Skills (Local/Regional and Global), Prepared the hands-on activities on each Methods, Approaches and Techniques in English Language Teaching

<b>SEED230A</b>	<b>Chinese II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>					
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- Understand society and background of China through the language
- Develop an analytical outlook towards understanding a country and its people through language.

### Course Outcomes:

On the completion of this course, the student-teachers will be able to:

- CO1:** Recognize Chinese Characters  
**CO2:** Write Chinese Characters  
**CO3:** Write meaningful sentences in Chinese Characters  
**CO4:** Comprehend texts in Chinese Characters

## **Catalog Description:**

This course aims to provide students with a comprehensive understanding of Chinese language and culture, focusing on script, character recognition, writing, and textual comprehension. By delving into the intricacies of Chinese script and language structure, students will gain insights into Chinese society, values, and perspectives.

## **Course Content**

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### **Unit I: 12 Contact Hours**

#### **Learning Chinese Strokes and it's order**

- Knowledge of script system of a foreign language
- Ability to reproduce the correct strokes of Chinese script in proper order
- Gendered nuances of Chinese radicals

### **Unit II: 12 Contact Hours**

#### **Recognizing and Comprehension of Chinese Characters**

- Recognition and identification of a foreign script-Chinese
- To be able to recognize and comprehend the meaning of Chinese Characters

### **Unit III 10 Contact Hours**

#### **Writing correct sentences in Chinese Characters**

- Knowledge of script system of a foreign language
- Art field (if calligraphic handwriting is developed)
- Recreate Chinese script and write meaningful sentences.

### **Unit IV: 10 Contact Hours**

#### **Comprehend text written solely in Characters**

- Recognition and identification of a foreign script-Chinese
- Form grammatically correct Chinese sentences and produce content in Chinese language.
- Awareness of Gender roles through Chinese characters
- Knowledge of moral value system of a foreign community through language

## **Suggested Readings**

- "Remembering the Hanzi: Book 1, How Not to Forget the Meaning and Writing of Chinese Characters" by James W. Heisig
- "Chinese Characters: A Genealogy and Dictionary" by Rick Harbaugh
- "Chinese Calligraphy Made Easy: A Structured Course in Creating Beautiful Brush Lettering" by Rebecca Yue
- "Remembering the Hanzi: Book 1, How Not to Forget the Meaning and Writing of Chinese Characters" by James W. Heisig
- "Chinese Characters: A Genealogy and Dictionary" by Rick Harbaugh
- "Chinese Calligraphy Made Easy: A Structured Course in Creating Beautiful Brush

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand society and background of China through the language	PO2
CO2	Develop an analytical outlook towards understanding a country and its people through language	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 230A	Chinese-II		3	3	3		2							3	2

<b>Unit I</b>	<b>Learning Chinese Strokes and it's order</b>
Local	
Regional	
National	
Global	Knowledge of script system of a foreign language
Employability	
Entrepreneurship	
Skill Development	Ability to reproduce the correct strokes of Chinese script in proper order
Professional Ethics	
Gender	Gendered nuances of Chinese radicals
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Recognizing and Comprehension of Chinese Characters</b>

<b>Programme and Course Mapping</b>																
	<b>P O 1</b>	<b>P O 2</b>	<b>P O 3</b>	<b>P O 4</b>	<b>P O 5</b>	<b>P O 6</b>	<b>P O 7</b>	<b>P O 8</b>	<b>P O 9</b>	<b>P O 10</b>	<b>P O 11</b>	<b>P O 12</b>	<b>P S O 1</b>	<b>P S O 2</b>	<b>P S O 3</b>	
<b>C O 1</b>		3				2									3	
<b>C O 2</b>			3										2			
<b>C O 3</b>				3												
<b>C O 4</b>																
1=lightly mapped                      2= moderately mapped                      3=strongly mapped																
Local																
Regional																
National																
Global	Recognition and identification of a foreign script-Chinese															
Employability																
Entrepreneurship																

Skill Development	To be able to recognize and comprehend the meaning of Chinese Characters
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Writing correct sentences in Chinese Characters</b>
Local	
Regional	
National	
Global	Knowledge of script system of a foreign language
Employability	Art field (if calligraphic handwriting is developed)
Entrepreneurship	
Skill Development	Recreate Chinese script and write meaningful sentences.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Comprehend text written solely in Characters</b>
Local	
Regional	
National	
Global	Recognition and identification of a foreign script-Chinese
Employability	
Entrepreneurship	
Skill Development	Form grammatically correct Chinese sentences and produce content in Chinese language.
Professional Ethics	
Gender	Awareness of Gender roles through Chinese characters
Human Values	Knowledge of moral value system of a foreign community through language
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork,

	communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability



<b>SEED232A</b>	<b>MATHEMATICS II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of mathematics				
<b>Co-requisites</b>					

### Course Objectives

The student-teachers will be able to:

- Expand on the knowledge of relations, and functions between two objects in the pair.
- Understand trigonometric functions and study their properties.
- Apply the knowledge of sequences in several spheres of human activities.
- Gain mastery over elementary concepts of continuity and differentiability.

### Course Outcomes:

On the completion of this course, the student-teachers will be able to:

**CO 1** Learn about special relations which will qualify to be functions

**CO 2** Learn how to link pairs of objects from two sets and then introduce relations between the two objects in the pair.

**CO 3** To understand the generalise the concept of trigonometric ratios to trigonometric functions

**CO 4** Learn important applications of sequences in several spheres of human activities

**CO 5** Learn elementary concepts of continuity, differentiability and relations between them.

### Catalog Description:

In this course, the learner will learn how to link pairs of objects from two sets and then introduce relations between the two objects in the pair. Further, they will learn about special relations which will qualify to be functions. The concept of function is very important in mathematics since it captures the idea of a mathematically precise correspondence between two quantities. Students would be able to generalise the concept of trigonometric ratios to trigonometric functions and study their properties. When we say a collection of objects is listed in a sequence, we usually mean that the collection is ordered in such a way that it has an identified first member, second member and third member, and so on. Students shall learn important applications of sequences in several spheres of human activities. Students shall also learn elementary concepts of continuity, differentiability and relations between them.

## Course Content

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**Unit I:** **12 Contact Hours**

### Relations and Functions

- Types of Relations
- Types of Functions
- Composition of Functions and Invertible Function
- Binary Operations

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**Unit II:** **12 Contact Hours**

### Trigonometric Functions

- Angles
- Trigonometric Functions
- Trigonometric Functions of Sum and Difference of Two Angles
- Trigonometric Equations

**Unit III** **10 Contact Hours**

### Sequence and Series

- Introduction of Sequence and Series
- Arithmetic Progression (A.P.)
- Geometric Progression (G.P.)
- Relationship between A.M. and G.M.
- Sum to  $n$  terms of Special Series

**Unit IV:** **10 Contact Hours**

### Limits and Derivatives

- Intuitive Idea of Derivatives
- Limits
- Limits of Trigonometric Functions
- Derivatives

### Suggested Text Books

1. NCERT, Exemplar Problems for Class XI – XII.
2. NCERT, Mathematics, Textbook for Class XI – XII.

### Advanced Readings

1. Acheson, David(2017). The Calculus Story: A Mathematical Adventure, OUP Oxford.
2. Arora, S. C. and Kumar, Ramesh. A Textbook of Calculus, Pitamber Publishing Co.: Delhi
3. Fernandez, Oscar(2014). Everyday Calculus – Discovering the Hidden Math All around Us, Princeton University Press.
4. Loney, S. N. (2016). Plane Trigonometry, MTG Learning Media Private Limited.
5. Sharma, R. D. Mathematics for Class 11, Dhanpat Rai Publications; Latest Edition.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Modes of Evaluation: Student’s performance based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Learn about special relations which will qualify to be functions	PO1
CO2	Learn how to link pairs of objects from two sets and then introduce relations between the two objects in the pair	PO10

<b>CO3</b>	To understand the generalise the concept of trigonometric ratios to trigonometric functions	<b>PO3</b>
<b>CO4</b>	Learn important applications of sequences in several spheres of human activities	<b>PO5</b>
<b>CO5</b>	Learn elementary concepts of continuity, differentiability and relations between them	<b>PO8</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 232A	Mathematics-II	2		3		3			3		2				

Programme and Course Mapping														
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
CO1	2													
CO2										2				
CO3			3											
CO4					3									
CO5								3						
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>Unit I</b>	<b>Relations and Functions</b>
Local	Types of Relations Types of Functions Composition of Functions and Invertible Function Binary Operations
Regional	Types of Relations Types of Functions
National	Types of Relations Types of Functions Composition of Functions and Invertible Function Binary Operations
Global	Composition of Functions and Invertible Function Binary Operations
Employability	Binary Operations
Entrepreneurship	
Skill Development	Composition of Functions and Invertible Function
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Trigonometric Functions</b>
Local	Angles Trigonometric Functions Trigonometric Functions of Sum and Difference of Two Angles Trigonometric Equations
Regional	
National	Angles Trigonometric Functions Trigonometric Functions of Sum and Difference of Two Angles
Global	Trigonometric Equations
Employability	Trigonometric Functions
Entrepreneurship	
Skill Development	Trigonometric Functions Trigonometric Functions of Sum and Difference of Two Angles
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Sequence and Series</b>
Local	Introduction of Sequence and Series Arithmetic Progression (A.P.) Geometric Progression (G.P.) Relationship between A.M. and G.M.

	Sum to $n$ terms of Special Series
Regional	
National	Introduction of Sequence and Series Arithmetic Progression (A.P.) Geometric Progression (G.P.) Relationship between A.M. and G.M. Sum to $n$ terms of Special Series
Global	Arithmetic Progression (A.P.) Geometric Progression (G.P.)
Employability	
Entrepreneurship	
Skill Development	Relationship between A.M. and G.M.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	Limits and Derivatives
Local	Intuitive Idea of Derivatives Limits Limits of Trigonometric Functions Derivatives
Regional	Intuitive Idea of Derivatives Limits Limits of Trigonometric Functions Derivatives
National	
Global	Derivatives
Employability	
Entrepreneurship	
Skill Development	Limits of Trigonometric Functions
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED234A</b>	<b>Physics II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding of Physics and its Principles				
<b>Co-requisites</b>	--				

### Course Overview

Physics is an advanced level science class that satisfies the high school graduation requirement of a physical science class. This Physics II curriculum includes Quantum Mechanics, Statistical Physics, Special Theory of Relativity and Nuclear Physics. Students will be challenged to apply their knowledge of the laws of physics to solve physics related critical thinking problems.

### Course Objectives

The course will enable the student-teachers to -

- Understand the fundamental quantum mechanics which forms the basis of theoretical physics.
- Gain knowledge about probability of occurrence of events.
- Learn about the application of fundamentals of relativity to various phenomena.
- Understand nuclear structure, properties and basic nuclear phenomenon.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Develop a solid understanding of the wave-particle duality and its mathematical description through the wave function, including its properties and applications.

**CO2** Gain proficiency in analyzing and comparing different statistical distributions, such as Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac, and their relevance in describing macroscopic systems.

**CO3** Acquire a comprehensive understanding of the principles and effects of special relativity, including length contraction, time dilation, and the concept of mass-energy equivalence.

**CO4** Develop knowledge of the structure and properties of atomic nuclei, including nuclear stability, the concept of binding energy, and the different modes of radioactive decay.

**CO5** Develop proficiency in solving problems related to Quantum mechanics, Statistical Physics, Theory of Relativity and Nuclear Physics.

### Unit I: Quantum Mechanics

**12 Contact Hours**

- De-Broglie Hypothesis,
- Group and Phase Velocity,
- Wave Packet,
- Uncertainty Principle,
- Wave Function and Its Properties,

- Davisson Germer experiment,
- Time Dependent and Independent Schrodinger Equation,
- Particle in a box (1-D).

## **Unit II: Statistical Physics**

**15 Contact Hours**

- Probability,
- Macrostate and microstate,
- Qualitative Features of Maxwell Boltzmann,
- Bose-Einstein and Fermi-Dirac statistics distribution,
- Functions & their comparison (no derivation).

## **Unit III: Special Theory of Relativity**

**15 Contact Hours**

- Inertial and non-inertial frames of references,
- Michelson- Morley experiment,
- Postulates of special theory of relativity,
- Lorentz transformation,
- length contraction,
- Time dilation,
- Addition of velocities,
- Mass energy equivalence.

## **Unit IV: Nuclear Physics**

**10 Contact Hours**

- The Atomic Nucleus,
- Nuclear force,
- Static properties of nucleus-mass, radius, density charge, quantum states, spin and magnetic moments;
- Nuclear stability, binding energy,
- Nuclear models- liquid drop model and shell mode.
- Radioactivity, Half-life, Alfa, beta and gamma decay, nuclear fission and fusion,
- Nuclear reactors.

### **Suggested Readings**

- Avadhanulu, M. N. and Kshirsagar, P. G. A Textbook of Engineering Physics, S. Chand.



- Beiser, A. Concept of Modern Physics.
- Patharia, R. K. Statistical Mechanics, Oxford: Butterworth.

### Advanced Readings

- "Principles of Quantum Mechanics" by R. Shankar
- "Statistical Physics: Berkeley Physics Course, Vol. 5" by F. Reif
- "Introduction to Special Relativity" by Wolfgang Rindler
- "Introductory Nuclear Physics" by Kenneth S. Krane

### Online References

1. <https://swayam.gov.in>
2. <http://egyankosh.ac.in>
3. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop a solid understanding of the wave-particle duality and its mathematical description through the wave function, including its properties and applications	PO3
CO2	Gain proficiency in analyzing and comparing different statistical distributions, such as Maxwell-Boltzmann, Bose-Einstein, and Fermi-Dirac, and their relevance in describing macroscopic systems	PO11
CO3	Acquire a comprehensive understanding of the principles and effects of special relativity, including length contraction, time dilation, and the concept of mass-energy equivalence	PO8
CO4	Develop knowledge of the structure and properties of atomic nuclei, including nuclear stability, the concept of binding energy, and the different modes of radioactive de	PO9
CO5	Develop proficiency in solving problems related to Quantum mechanics, Statistical Physics, Theory of Relativity and Nuclear Physics	PO10

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Physics II SEED234			2					2	3	2	3		2	3

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
												1	2	3
C			3										2	
O								3			3			3
1														
2														
3									3					
4										3				
5											3			

1=lightly mapped      2= moderately mapped      3=strongly mapped

Unit I	<b>Quantum Mechanics</b>
Local	Wave Packet
Regional	

National	
Global	
Employability	De-Broglie Hypothesis, Group and Phase Velocity, Wave Packet, Uncertainty Principle, Wave Function and Its Properties, Davisson Germer experiment, Time Dependent and Independent Schrodinger Equation, Particle in a box (1-D).
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Statistical Physics</b>
Local	Probability
Regional	Probability
National	
Global	
Employability	Probability, Macrostate and microstate, Qualitative Features of Maxwell Boltzmann, Bose-Einstein and Fermi-Dirac statistics distribution, Functions & their comparison (no derivation).
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	

<b>Unit III</b>	<b>Special Theory of Relativity</b>
Local	Electric charges Electric field  Postulates of special theory of relativity
Regional	
National	
Global	
Employability	Inertial and non-inertial frames of references, Michelson- Morley experiment, Postulates of special theory of relativity, Lorentz transformation, length contraction, Time dilation, Addition of velocities, Mass energy equivalence.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Nuclear Physics</b>
Local	
Regional	
National	
Global	Radioactivity, Half-life, Alfa, beta and gamma decay, nuclear fission and fusion
Employability	<ul style="list-style-type: none"> <li>• The Atomic Nucleus,</li> <li>• Nuclear force,</li> <li>• Static properties of nucleus-mass, radius, density charge, quantum states, spin and magnetic moments;</li> <li>• Nuclear stability, binding energy,</li> </ul>

	<ul style="list-style-type: none"> <li>• Nuclear models- liquid drop model and shell mode.</li> <li>• Radioactivity, Half-life, Alfa, beta and gamma decay, nuclear fission and fusion,</li> <li>• Nuclear reactors.</li> </ul>
Entrepreneurship	
Skill Development	Radioactivity, Half-life, Alfa, beta and gamma decay, nuclear fission and fusion
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED236A</b>	<b>Chemistry II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding of Chemistry & its Theories				
<b>Co-requisites</b>	--				

### Course Overview

This course deals with the Chemistry of aliphatic and Aromatic hydrocarbons their nomenclature, naming reactions and mechanism, theory of Chemical Bonding, Chemical kinetics and surface chemistry. Proposed course provides the detail knowledge about types of organic chemistry and their chemical mechanism with Alkane, alkene, alkynes and Aromatic hydrocarbons. Students also learn the position and arrangement of elements. This course helps the students to understand Chemical kinetics for determination of rate of chemical reaction.

### Course Objectives

The course will enable the student-teachers to -

- Gain the knowledge of Alkane, alkene and alkynes and their reaction on the basis of which their stability could be determined.
- Explain synthesis of alcohols, ketones, acids on the basis of naming reactions.
- Understand the general properties of all elements present in periodic table.
- Differentiate the types of order of reaction on the basis of which rate of reaction could be determined.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Develop a comprehensive understanding of the chemistry of aliphatic hydrocarbons, including the formation of alkanes, alkenes, and alkynes through carbon-carbon sigma and pi bond formations

**CO2** Develop the ability to predict and explain the outcomes of electrophilic aromatic substitution reactions, including halogenation, nitration, sulphonation, and Friedel-Crafts alkylation/acylation.

**CO3** Develop the ability to predict and explain the types of chemical bonds and hybridization in various compounds.

**CO4** Gain proficiency in chemical kinetics, including determining reaction orders, deriving rate constants, and understanding the factors that influence reaction rates, such as temperature, concentration, catalysts, and pressure.

**CO5** acquire knowledge of surface chemistry, including colloids, their preparation, properties, and uses, as well as emulsions and gels.

**Unit I: Chemistry of Aliphatic Hydrocarbons** **12 Contact Hours**

- Carbon Carbon sigma bonds: Formation of alkanes, Wurtz Reaction, Wurtz- Fittig Reactions, Free radical substitutions: halogenation - relative reactivity and selectivity.
- Carbon-Carbon pi bonds Formation of alkenes and alkynes by elimination reactions, Mechanism of E1, E2, reactions. Saytzeff eliminations, reactions of alkenes: electrophilic additions, their mechanisms (Markownikoff/ Anti Markownikoff addition), mechanism of oxymercuration-demercuration, hydroboration- oxidation, ozonolysis, reduction (catalytic and chemical), syn and anti hydroxylation (oxidation).

**Unit II: Aromatic Hydrocarbons** **15 Contact Hours**

- Aromaticity: Huckel's rule, aromatic character of arenes, cyclic carbocations/carbanions and heterocyclic compounds with suitable examples, electrophilic aromatic substitution: halogenation, nitration, sulphonation and Friedel-Craft's alkylation/acylation with their mechanism, directing effects of the groups.

**Unit III: Chemical Bonding** **15 Contact Hours**

- Valence Bond Theory,
- Molecular orbital Theory,
- Construction of Mo. Diagrams for homo nuclear & heteronuclear diatomic ,
- Types of bond (Ionic covalent, Coordinate, metallic, Concept of Hybridization, Definition Types, Prediction of Hybridization ( $\text{BeCl}_2$ ,  $\text{CH}_4$ ,  $\text{ClF}_4$ ,  $\text{POCl}_3$ ,  $\text{NH}_4^+$ ,  $\text{H}_3\text{O}^+$ ,  $\text{CO}_3^{2-}$ ,  $\text{Cl}^{4-}$  )
- Classification of elements based on their electronics structure : The long form of periodic table s, p, d, f block elements, their position in periodic table and general properties related to their electronic structures: atomic, ionic and covalent radii, ionization energy, electron affinity, screening effect, electronegativity, metallic and non – metallic character.

**Unit IV: Chemical Kinetics and Surface Chemistry** **10 Contact Hours**

Definition of order and molecularity,

- Derivation of rate constant for zero, first, second and third order reactions and example,
- Effect of temperature, concentration, catalyst & pressure on rate of reaction,
- Arrhenius equation,
- Pseudo order reaction,
- Simple collision theory & transition state theory for reaction rate,

- Definition of colloids,
- Preparation, purification & properties of colloidal solution (Solutions),
- Hardy – Schulze law,
- Preparation, properties & uses of emulsion of gel,
- Protective colloids.

### Practicum

1. Detection of extra elements (N, S, Cl, Br, I) in organic compound not more than two such elements may be present in a compound.
2. Determination of total, permanent and temporary hardness of given water sample.
3. Preparation of potash alum/ chrome alum.
4. Determination of viscosity of liquid.
5. Determination of CST for water – phenol system.

### Suggested Readings

- Bahl, A. and Bahl, B. S. Advanced Organic Chemistry, S. Chand and Co. Ltd., New Delhi.
- Bahl, Arun. Essentials of Physical Chemistry, S. Chand Publishing.
- Bahl, R. S. and Bahl, A. (1990). Advanced Organic Chemistry, S. Chand and Co.: New Delhi,
- Donald, H. Andrews (1970). Introductory Physical Chemistry, McGraw Hill: New York.
- Finar, I. L. Organic Chemistry (Volume 1), Dorling Kindersley (India) Pvt. Ltd. (Pearson Education).
- Giri, O. P. et. al., Practical chemistry, S. Chand and company Pvt. Ltd., New Delhi.
- James, E. et. al. (1993). Inorganic Chemistry, Harper Collins: London.
- Khosla, B. D. etl al.(1982).A senior practical physical chemistry, R. Chand and CO.: New Delhi
- Puri, B. R. Sharma, L. R. and Pathania, M. S., Principles of Physical Chemistry, Vishal Publishing Company.
- Puri, B. R., Sharma, L. R. and Kalia, K. C. Principles of Inorganic Chemistry, Shobhan Lal Nagin Chand & Co., New Delhi.



## Advanced Reading

- Advanced Organic Chemistry: Part A: Structure and Mechanisms" by Francis A. Carey and Richard J. Sundberg.
- Aromaticity and Other Conjugation Effects" by Francis A. Carey and Richard J. Sundberg.
- Chemical Bonding: Clarified Through Quantum Mechanics" by George C. Pimentel and Alexander H. Pimentel.
- Chemical Kinetics and Reaction Dynamics" by Paul L. Houston.

## Online References

4. <https://swayam.gov.in>
5. [https://chem.libretexts.org/Courses/University\\_of\\_California\\_Davis/UCD\\_Chem\\_8A\\_2019\\_-\\_Heather\\_D\\_Allen/Text](https://chem.libretexts.org/Courses/University_of_California_Davis/UCD_Chem_8A_2019_-_Heather_D_Allen/Text)
6. <http://egyankosh.ac.in>
7. [www.ignou.ac.in](http://www.ignou.ac.in)
8. <https://www.masterorganicchemistry.com/aromaticity/>

Modes of Evaluation: Student's performance based on continuous evaluation.

## Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop a comprehensive understanding of the chemistry of aliphatic hydrocarbons, including the formation of alkanes, alkenes, and alkynes through carbon-carbon sigma and pi bond formations	PO3
CO2	Develop the ability to predict and explain the outcomes of electrophilic aromatic substitution reactions, including halogenation, nitration, sulphonation, and Friedel-Crafts alkylation/acylation.	PO1
CO3	Develop the ability to predict and explain the types of chemical bonds and hybridization in various compounds.	PO7
CO4	Gain proficiency in chemical kinetics, including determining reaction orders, deriving rate constants, and understanding the factors that influence reaction rates, such as temperature, concentration, catalysts, and pressure	PO9
CO5	Acquire knowledge of surface chemistry, including colloids, their preparation, properties, and uses, as well as emulsions and gels.	PO11

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Chemistry II SEED236A		2	3				3		3		3		2	3

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
												1	2	3
C			3										2	
O	3													3
1							3							
2									3					
3											3			
4														
5														

1=lightly mapped                      2= moderately mapped                      3=strongly mapped

<b>Unit I</b>	<b>Basics of Organic Chemistry</b>
Local	
Regional	
National	
Global	
Employability	Electronic displacements: inductive, electrometric, resonance and mesomeric effects, hyper conjugation and their applications
Entrepreneurship	
Skill Development	Carbanions, free radicals and carbenes, Introduction to types of organic reactions and their mechanism: addition, elimination and substitution reactions.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Stereo-Chemistry</b>
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	Fischer projection, Newman and sawhorse projection formulae and their inter conversions;
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Atomic Structure</b>
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	Bohr's theory, Heisenberg's uncertainty principle and its significance, Schrodinger's wave equation, Significance of $\psi$ and $\psi^2$ ,
Professional Ethics	Shapes of s, p, d and f orbitals, Pauli's exclusion principle, Hund's rule of maximum multiplicity, Aufbau's principle and its limitations, Variation of orbital energy with atomic number.
Gender	

Human Values	
Environment & Sustainability	
Unit IV	<b>Gases and Liquids</b>
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	Van der wall's equation (no derivation but explanation regarding a and b), Surface tension, viscosity, their experimental determination and applications.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature (12.8). Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all (9.1), achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil to minimize their adverse impacts on human health and the environment (12.4)
NEP 2020	Infectious disease management and development of vaccines and the resultant social issues heightens the need for multidisciplinary learning. (Pg 4), Towards a More Holistic and Multidisciplinary Education, (11.2) increased creativity and innovation, critical thinking and higher order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Integrating updated curriculum and practical courses inspired by the 4th Industrial Revolution to impart industry-relevant technical skills, aligning with the evolving needs of chemical industries for enhanced employability and skill development."

<b>SEED238A</b>	<b>BIOLOGY II</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic concepts of plant and animal biology				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- To understand the structural organization of animals and plants.
- To know about structure and function of animal cell and plant cell.
- To gain an understanding of Plant Physiology.
- To familiarize the students with the mechanism of photosynthesis and transportation of nutrients in an animal cell

### Course Outcomes

On completion of this course, the student-teachers will be able to:

**CO1** Understand the structural organization of animals and plants.

**CO2** Understand the structure and function of animal and plant cell.

**CO3** Understand the mechanism of transportation in plants.

**CO4** Comprehend photosynthesis as a means of nutrition and the process of photosynthesis.

**CO5** Analyze the relevance of content of biology at elementary level.

### Catalog Description

Studying biology is the foundation of all characteristics of life on Earth. Apart from creating solutions to the challenges many living organisms face, it paves the way for inventions and discoveries that improve the quality of life. Biology plays an important role in the understanding of complex forms of life involving humans, animals and plants. Understanding these intricate details of life helps humans understand how to care for themselves, animals and plants in the proper manner. Biology helps individuals understand the interaction between humanity and the world. It also develops interests in the lives of living organisms in an effort to preserve them.

### Course Content

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**Unit I:****15 Contact Hours****Diversity of Life**

- Structural Organisation in Animals and Plants: Morphology and modifications; Tissues; Anatomy and functions of different parts of flowering plants: Root, stem, leaf, inflorescence- cymose and racemose, flower, fruit and seed (To be dealt along with the relevant practical of the Practical Syllabus).
- Animal Tissues; Morphology, anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of an insect (cockroach). (Brief account only)

**Unit II:****12 Contact Hours****Cell Structure and Function**

- Cell theory and cell as the basic unit of life; Structure of prokaryotic and eukaryotic cell; Plant cell and animal cell; Cell envelope, cell membrane, cell wall; Cell organelles– structure and function; Endomembrane system- endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies; Cytoskeleton, cilia, flagella, centrioles (ultra structure and function); Nucleus–nuclear membrane, chromatin, nucleolus.
- Chemical constituents of living cells: Biomolecules–structure and function of proteins, carbohydrates, lipid, nucleic acids; Enzymes–types, properties, enzyme action.

Cell Division: Cell cycle, mitosis, meiosis and their significance

**Unit III:****12 Contact Hours****Plant Physiology**

- Transport in Plants: Movement of water, gases and nutrients; Cell to cell transport– Diffusion, facilitated diffusion, active transport; Plant – water relations– Imbibition, water potential, osmosis, plasmolysis; Long distance transport of water– Absorption, apoplast, symplast, transpiration pull, root pressure and guttation; Transpiration– Opening and closing of stomata; Uptake and translocation of mineral nutrients–

Transport of food, phloem transport, Mass flow hypothesis; Diffusion of gases (brief mention).

- Mineral Nutrition: Essential minerals, macro and micronutrients and their role; Deficiency symptoms; Mineral toxicity; Elementary idea of Hydroponics as a method to study mineral nutrition; Nitrogen metabolism – Nitrogen cycle, biological nitrogen fixation.

#### **Unit IV:**

**12 Contact Hours**

#### **Photosynthesis**

- Photosynthesis as a means of Autotrophic nutrition
- Where does photosynthesis take place
- How many pigments are involved in Photosynthesis (Elementary idea)
- Photochemical and biosynthetic phases of photosynthesis
- Cyclic and non-cyclic photophosphorylation
- Chemiosmotic hypothesis
- Photorespiration
- C<sub>3</sub> and C<sub>4</sub> pathways
- Factors affecting photosynthesis. Respiration: Exchange of gases; Cellular respiration – glycolysis, fermentation (anaerobic)
- TCA cycle and electron transport system (aerobic)
- Energy relations – Number of ATP molecules generated; Amphibolic pathways
- Respiratory quotient.
- Plant Growth and Development: Seed germination
- Phases of plant growth and plant growth rate
- Conditions of growth
- Differentiation, dedifferentiation and redifferentiation
- Sequence of developmental process in a plant cell
- Growth regulators–auxin, gibberellin, cytokinin, ethylene, ABA; Seed dormancy; Vernalisation
- Photoperiodism.

#### **Practicum**

1. Preparation and study of T.S. of dicot and monocot roots and stems (primary).
2. Study of osmosis by potato osmometer.
3. Study of plasmolysis in epidermal peels (e.g. Rhoeo leaves)
4. Study of distribution of stomata in the upper and lower surface of leaves.

Comparative study of the rates of transpiration in the upper and lower surface of leaves.

### Suggested Text Books

1. NCERT Class XI Textbook, NCERT, New Delhi.
2. NCERT Class XII Textbook, NCERT, New Delhi.
3. Tyagi, M.P. and Bhatia, K.N. (2018). Trueman's Elementary Biology for Class XII. Vol. 1. Danika Publishing Company.
4. Tyagi, M.P. and Bhatia, K.N. (2018). Trueman's Elementary Biology for Class XII. Vol. 2. Danika Publishing Company.

### Advanced Readings

1. Adhikari, S. and Sinha, A. K. (1990). Fundamentals of Biology of Animals, Vol.-3. New Central Book Agency: Calcutta. Alexander, R. McNeill. Animals, Cambridge University Press: Cambridge.
2. De Witt, William. Biology of the Cell - An Evolutionary Approach, W.B. Saunders Co: London, Keeton.
3. Dhama, P.S., Chopra, G., Srivastava, H.N. (2017). *Pradeep A Test Book of Biology Class 11* Vol 1 & 2. Pradeep Publications.
4. Singh, L., & Kaur, M. *Science for Tenth Class Part 3 Biology*. S. Chand Publishing.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Modes of Evaluation: Student's performance based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**



Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the structural organization of animals and plants.	PO1
CO2	Understand the structure and function of animal and plant cell.	PO3
CO3	Understand the mechanism of transportation in plants.	PO3
CO4	Comprehend photosynthesis as a means of nutrition and the process of photosynthesis.	PO3
CO5	Analyze the relevance of content of biology at elementary level.	PO11

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 238A	Biology-II	2		3								3	2		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3											2		
C O 2			3											
C O 3			3											
C O 4			3											
C O 5											3			
1=lightly mapped			2= moderately mapped						3=strongly mapped					

Unit I	Diversity of Life
Local	
Regional	
National	
Global	Structural Organisation in Animals and Plants: Morphology and modifications; Tissues; Anatomy and functions of different parts of flowering plants: Root, stem, leaf, inflorescence- cymose and racemose, flower, fruit and seed (To be dealt along with the relevant practical of the Practical Syllabus). Animal Tissues; Morphology, anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of an insect (cockroach). (Brief account only)
Employability	Structural Organisation in Animals and Plants: Morphology and modifications;
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	Cell structure and function
Local	

Regional	
National	
Global	Cell theory and cell as the basic unit of life; Chemical constituents of living cells: Biomolecules–structure and function of proteins, carbohydrates, lipid, nucleic acids; Enzymes–types, properties, enzyme action. Cell Division: Cell cycle, mitosis, meiosis and their significance
Employability	
Entrepreneurship	
Skill Development	Structure of prokaryotic and eukaryotic cell; Plant cell and animal cell; Cell envelope, cell membrane, cell wall; Cell organelles– structure and function; Endomembrane system- endoplasmic reticulum, Golgi bodies, lysosomes, vacuoles; mitochondria, ribosomes, plastids, microbodies; Cytoskeleton, cilia, flagella, centrioles (ultra structure and function); Nucleus–nuclear membrane, chromatin, nucleolus. Cell theory and cell as the basic unit of life;
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Plant Physiology</b>
Local	
Regional	
National	
Global	Transport in Plants: Movement of water, gases and nutrients; Cell to cell transport– Diffusion, facilitated diffusion, active transport; Plant – water relations– Imbibition, water potential, osmosis, plasmolysis; Long distance transport of water– Absorption, apoplast, symplast, transpiration pull, root pressure and guttation; Transpiration– Opening and closing of stomata; Uptake and translocation of mineral nutrients– Transport of food, phloem transport, Mass flow hypothesis; Diffusion of gases (brief mention). Mineral Nutrition: Essential minerals, macro and micronutrients and their role; Deficiency symptoms; Mineral toxicity; Elementary idea of Hydroponics as a method to study mineral nutrition; Nitrogen metabolism – Nitrogen cycle, biological nitrogen fixation.
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	

Environment & Sustainability	Mineral Nutrition: Essential minerals, macro and micronutrients and their role; Deficiency symptoms; Mineral toxicity; Elementary idea of Hydroponics as a method to study mineral nutrition; Nitrogen metabolism – Nitrogen cycle, biological nitrogen fixation.
Unit IV	Photosynthesis
Local	Plant Growth and Development: Seed germination, Conditions of growth Phases of plant growth and plant growth rate
Regional	Plant Growth and Development: Seed germination Phases of plant growth and plant growth rate Conditions of growth
National	Where does photosynthesis take place Plant Growth and Development: Seed germination Conditions of growth Phases of plant growth and plant growth rate
Global	
Employability	Photosynthesis as a means of Autotrophic nutrition How many pigments are involved in Photosynthesis (Elementary idea) Photochemical and biosynthetic phases of photosynthesis Cyclic and non-cyclic photophosphorylation Chemiosmotic hypothesis Photorespiration C3 and C4 pathways Factors affecting photosynthesis. Respiration: Exchange of gases; Cellular respiration – glycolysis, fermentation (anaerobic) TCA cycle and electron transport system (aerobic) Energy relations – Number of ATP molecules generated; Amphibolic pathways Respiratory quotient. Differentiation, dedifferentiation and redifferentiation Sequence of developmental process in a plant cell Growth regulators–auxin, gibberellin, cytokinin, ethylene, ABA; Seed dormancy; Vernalisation Photoperiodism.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment &	

Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11. Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs ,Skill Development and Employability

<b>SEED240A</b>	<b>HISTORY II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic Understanding of historical sources and the major empires that existed in the past.				
<b>Co-requisites</b>					

### Course Overview

The course aims to make students aware about historical sources and the major empires that existed in the past. It will also look at different societal forms, the specificities of different systems and their transformations, the long term trends and processes in history.

### Objectives

The course will enable the student-teachers to -

- Acquaint the students with different sources of Ancient Indian History.
- Understand the causes and consequences of Foreign Invasions
- Aware with the administration and statecraft of various empires.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Develop critical analysis skills to evaluate diverse sources of ancient Indian history and understand the impact of foreign invasions on India.

**CO2** Gain a comprehensive understanding of the rise of the Magadha Empire and the significance of the Mauryan dynasty in shaping ancient Indian society.

**CO3** Explore the political and cultural achievements of the Gupta dynasty and their profound influence on the socio-economic and intellectual landscape of ancient India.

**CO4** Students should know the origin and historical significance of Rajput clans and analyze the political and cultural contributions of the Chandellas, Paramaras, Ghahamanas, and Gahadawalas in medieval India.

### Unit I: Historical Sources and Foreign Invasions

**12 Contact**

#### Hours

- Sources of Ancient Indian History
- Political condition of Northern Indian during 6th Cent. B.C.
- Persian and Alexander's invasion on India and Its effects

**Unit II: Rise of Magadha and Mauryan Empire****15 Contact****Hours**

- Rise of Magadha Empire
- Kalinga Dynasty
- Haryanka dynasty Bimbisara, Ajatshatru and his successors
- Saisunga dynasty Saisunga, Kalasoka
- Nanda dynasty [origin, Mahapadanaanda, successors and causes of downfall]
- The Mauryas [ Origin, Early life & conquests of Chandragupta Maurya, Bindusara, Sources for the history of Asoka, Conquests, Extent of Empire, Dhamma Policy, Successors & Causes of Downfall]

**Unit III: Gupta Period****12 Contact Hours**

- The Guptas Chandragupta I, Samudragupta, Historicity of Ramagupta, Chandragupta II, Kumaragupta, Skandagupta, Successors and causes of Downfall
- Brief history of the following- The Vatakas, The Maukharis, The Later Guptas, Huna Invasions of India.

**Unit IV: Rajput and Four Powerful Rajput States****12 Contact****Hours**

- Origin of Rajputs
- The Chandellas
- The Paramaras
- The Ghahamanas
- The Gahadawalas

**Advanced Readings**

1. Worthington, Ian (ed.) (2003). Alexander the Great. A Reader. Routledge
2. Bosworth B. (2002). The Legacy of Alexander. Politics, Warfare and Propaganda under the Successors. Oxford University Press.
3. Sharma R. S. (2005). India's Ancient Past. Oxford University Press.
4. Thapar, Romila (2002). The Penguin History of Early India. From the Origins to AD 1300. Penguin Books.
5. Chattopadhyaya, B. D. (1998) "Origin of the Rajputs: The Political, Economic and Social Processes in Early Medieval Rajasthan". In Making of Early Medieval India. Second Edition. Oxford University Press (OUP).

**Suggested Readings**

1. Dahiya, Poonam Dalal (2017). Ancient and Medieval India, McGraw Hill, Delhi.
2. Pandey, V. C. and Pandey, A. A New History of Ancient India.
3. Raichaudri, H. C. Political History of Ancient India.
4. Sharma, R. S. (2006). India's Ancient Past, Oxford Publication, New Delhi.

### Online References

1. <https://egyankosh.ac.in/bitstream/123456789/64792/1/Unit14.pdf>
2. <https://egyankosh.ac.in/bitstream/123456789/64793/1/Unit15.pdf>
3. <https://egyankosh.ac.in/bitstream/123456789/20162/1/Unit-32.pdf>
4. <https://egyankosh.ac.in/bitstream/123456789/61919/1/Unit-9.pdf>

**Modes of Evaluation: Student's performance based on continuous evaluation.**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop critical analysis skills to evaluate diverse sources of ancient Indian history and understand the impact of foreign invasions on India.	PO3
CO2	Gain a comprehensive understanding of the rise of the Magadha Empire and the significance of the Mauryan dynasty in shaping ancient Indian society.	PO11
CO3	Explore the political and cultural achievements of the Gupta dynasty and their profound influence on the socio-economic and intellectual landscape of ancient India.	PO1
CO4	Students should know the origin and historical significance of Rajput clans and analyze the political and cultural contributions of the Chandellas, Paramaras, Ghahamanas, and Gahadawalas in medieval India.	PO9

1=lightly mapped

2= moderately mapped

3=strongly mapped



	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
History II SEED240 A	3		3						3		2		2	

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1			3										2	
C O 2											3			3
C O 3	3													
C O 4								3						
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Historical Sources and Foreign Invasions
Local	Sources of Ancient Indian History
Regional	Political condition of Northern Indian during 6th Cent. B.C
National	Sources of Ancient Indian History
Global	Persian and Alexander's invasion on India and Its effects
Employability	
Entrepreneurship	

Skill Development	Archeological Sources
Professional Ethics	Sources of History
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Rise of Magadha and Mauryan Empire</b>
Local	
Regional	Haryanka dynasty Bimbisara, Ajatshatru and his successors
National	Rise of Magadha Empire The Mauryas
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Gupta Period</b>
Local	
Regional	
National	Chandragupta I, Samudragupta, Historicity of Ramagupta, Chandragupta II
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Rajput and Four Powerful Rajput States</b>
Local	
Regional	Origin of Rajputs
National	The Chandellas, The Paramaras , The Ghahamanas
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	

Human Values	
Environment & Sustainability	
SDG	4. 4, Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for All.
NEP 2020	
POE/4 <sup>th</sup> IR	

SEED242A	Political Science II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Indian history and the Indian National Movement				
Co-requisites	--				

### Course Overview

The course attempts to make students aware about the concept as well as growth of Nationalism, fundamental rights and directive principles of the state policy and the working of the government at various levels.

### Course Objectives

The course will enable the student-teachers to -

- Understand India's political trajectory.
- Have an idea about the functioning of government at different levels under the provisions made in the constitution of India.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Understand the emergence and growth of Indian nationalism, including the role of the Indian National Congress and key milestones of the Indian National Movement.

**CO2** Examine the philosophical foundations of the Indian Constitution and the process of its creation, including the composition and working of the Constituent Assembly.

**CO3** Compare different forms of government, such as parliamentary and presidential systems, and analyze the dynamics of center-state relations in India's federal structure.

**CO4** Identify the key political institutions in India, including the President, Prime Minister, Council of Ministers, Parliament (Lok Sabha and Rajya Sabha), judiciary, Chief Minister, and Governor, and their respective roles and functions.

**CO5** Analyze significant movements like non-cooperation, civil disobedience, and the Quit India Movement, along with the impact of the Independence Act 1947 on India's political landscape.

### Unit I: Concept and Growth of Nationalism in India

**15 Contact Hours**

- The birth and growth of Nationalism in India,
- The Indian National Congress,
- The Moderates and the Extremists,
- Landmarks of Indian National Movement,
- Non-Cooperation,
- Civil Disobedience and Quit India Movement,
- The Independence Act 1947.

**Unit II: Philosophical Premises and Making of the Indian Constitution** **15 Contact Hours**

- The Nature & Composition of the Constituent Assembly
- Working of the Constituent Assembly
- Committees of the Constituent Assembly
- Enactment of the Constitution

**Unit III: System of Government** **12 Contact Hours**

- Parliamentary Form of Government
- Presidential Form of Government,
- Centre –state Relations
- Federal System.
- Unitary Form of Government

**Unit IV: The Union Government and the State Government** **12 Contact Hours**

- The President
- The Prime Minister
- The Council of Ministers
- The Parliament: The Lok Sabha and Rajya Sabha
- Judiciary system of India
- The Parliament
- Chief Minister
- Governor.

**Suggested Readings**

- Aggarwal, R .C. and Bhatnagar, Mahesh (2005). Constitutional Development and National Movement in India, S. Chand.
- Chandra, Bipan (2009). History of Modern India, Orient Blackswan.
- Chandra, Bipan (2016). India’s Struggle for Independence: 1857-1947, Penguin India.

**Advanced Readings**

- Ambedkar, B. R. (2014). Annihilation of Caste: The Annotated Critical Edition. Verso.
- Guha, R. (2008). India After Gandhi: The History of the World's Largest Democracy. HarperCollins.

- Basu, A., & Chatterjee, P. (Eds.). (2017). Indian Political Thought: A Reader. Oxford University Press.
- Shourie, A. (2006). Governance and the Sclerosis That Has Set In. Rupa Publications.
- Pandey, G. (2001). Remembering Partition: Violence, Nationalism and History in India. Cambridge University Press.
- Chatterjee, P. (1993). The Nation and Its Fragments: Colonial and Postcolonial Histories. Princeton University Press.

### Online References

9. <https://swayam.gov.in>
10. <http://www.ncte.nic.in>
11. <http://egyankosh.ac.in>
12. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the emergence and growth of Indian nationalism, including the role of the Indian National Congress and key milestones of the Indian National Movement.	PO3
CO2	Examine the philosophical foundations of the Indian Constitution and the process of its creation, including the composition and working of the Constituent Assembly.	PO9
CO3	Compare different forms of government, such as parliamentary and presidential systems, and analyze the dynamics of center-state relations in India's federal structure.	PO11
CO4	Identify the key political institutions in India, including the President, Prime Minister, Council of Ministers, Parliament (Lok Sabha and Rajya Sabha), judiciary, Chief Minister, and Governor, and their respective roles and functions.	PO5
CO5	Analyze significant movements like non-cooperation, civil disobedience, and the Quit India Movement, along with the impact of the Independence Act 1947 on India's political landscape.	PO3

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Political Science II 242A			3		3				3		3	3	3	

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
C			3											3
O									3					3
C											3			
O					3									
C			3											
O														
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>Unit I</b>	<b>Concept and Growth of Nationalism in India</b>
Local	

Regional	
National	The birth and growth of Nationalism in India, The Indian National Congress, the Moderates and the Extremists, Landmarks of Indian National Movement, Non-Cooperation, Civil Disobedience and Quit India Movement, The Independence Act 1947.
Global	
Employability	The birth and growth of Nationalism in India, The Indian National Congress, the Moderates and the Extremists, Landmarks of Indian National Movement, Non-Cooperation, Civil Disobedience and Quit India Movement, The Independence Act 1947.
Entrepreneurship	
Skill Development	The birth and growth of Nationalism in India, The Indian National Congress, the Moderates and the Extremists, Landmarks of Indian National Movement, Non-Cooperation, Civil Disobedience and Quit India Movement, The Independence Act 1947.
Professional Ethics	
Gender	
Human Values	The birth and growth of Nationalism in India, The Indian National Congress, the Moderates and the Extremists, Landmarks of Indian National Movement, Non-Cooperation, Civil Disobedience and Quit India Movement, The Independence Act 1947.
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
<b>Unit II</b>	<b>Philosophical Premises and Making of the Indian Constitution</b>
Local	
Regional	
National	The Nature & Composition of the Constituent Assembly Working of the Constituent Assembly Committees of the Constituent Assembly Enactment of the Constitution Fundamental Rights and Fundamental Duties Directive Principles of State Policy
Global	
Employability	The Nature & Composition of the Constituent Assembly Working of the Constituent Assembly Committees of the Constituent Assembly Enactment of the Constitution Fundamental Rights and Fundamental Duties Directive Principles of State Policy
Entrepreneurship	
Skill Development	The Nature & Composition of the Constituent Assembly



	Working of the Constituent Assembly Committees of the Constituent Assembly Enactment of the Constitution Fundamental Rights and Fundamental Duties Directive Principles of State Policy
Professional Ethics	
Gender	
Human Values	The Nature & Composition of the Constituent Assembly Working of the Constituent Assembly Committees of the Constituent Assembly Enactment of the Constitution Fundamental Rights and Fundamental Duties Directive Principles of State Policy
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development
<b>Unit III</b>	<b>System of Government</b>
Local	
Regional	
National	Parliamentary Form of Government Presidential Form of Government, Centre –state Relations, Federal System.
Global	
Employability	Parliamentary Form of Government Presidential Form of Government, Centre –state Relations, Federal System.
Entrepreneurship	
Skill Development	Parliamentary Form of Government Presidential Form of Government, Centre –state Relations, Federal System.
Professional Ethics	

Gender	
Human Values	Parliamentary Form of Government Presidential Form of Government, Centre –state Relations, Federal System.
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development
<b>Unit IV</b>	The Union Government and the State Government
Local	
Regional	
National	The President The Prime Minister The council of Ministers The Parliament The Supreme Court Chief Minister Governor.
Global	
Employability	The President The Prime Minister The council of Ministers The Parliament The Supreme Court Chief Minister Governor.
Entrepreneurship	
Skill Development	The President The Prime Minister The council of Ministers The Parliament The Supreme Court Chief Minister Governor.
Professional Ethics	
Gender	
Human Values	The President The Prime Minister The council of Ministers

	The Parliament The Supreme Court Chief Minister Governor.
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development

SEED244A	Geography II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of physical geography concepts				
Co-requisites	--				

### Course Overview

This course provides the students with the Physical Parameters of the Ocean; Ocean Basin Topography; Life in the Sea; and Resources in the Oceans. The course focuses upon life on the earth keeping into consideration climate, vegetation and soil. The geography of natural hazards a part of the course, examines human landscapes, in areas prone to damaging environmental conditions, i.e., floods, droughts, earth-quakes, severe agricultural frosts, etc. upon the identification of geographic areas where notable disasters have occurred.

### Course Objectives

The course will enable the student-teachers to -

- Develop an understanding of physical parameters of the ocean.
- Know about the mechanism of current, tides and waves.
- Understand the interactive mechanism between human beings and the biosphere.
- Know about Indian climate, vegetation, distribution of wild life etc.
- Develop an understanding into causes, consequences and management of Environmental Hazards in India.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1.** Analyze the ocean's geomorphology, and understand the movement of ocean water through currents, tides, waves, marine deposits, and coral reefs.

**CO2** Explore different approaches in environmental geography, and dynamic relationship between humans and the biosphere, including the impact on biogeochemical cycles.

**CO3** Understand the concepts of climate and atmospheric processes, and various climate classification schemes.

**CO4** Investigate the causes, consequences, and management of natural hazards and disasters in India, and explore environmental institutions and legislation in India.

**CO5** Investigate the causes, consequences, and management of natural hazards and disasters in India, and explore environmental institutions and legislation in India.

### **Unit I**

**12 Contact Hours**

- Water (Ocean): Geomorphology of the ocean floor, submarine relief features of Atlantic, Pacific and Indian Ocean.
- Movement of ocean water: Currents, tides and waves. Marine deposits and coral reefs.

### **Unit II**

**12 Contact Hours**

- Life on the Earth: Approaches in environmental Geography, landscape, ecosystem and perception approaches.
- Man and the Biosphere: Interactive and dynamic relationship.
- Human impact on biogeochemical cycles.

### **Unit III**

**15 Contact Hours**

- Climate
- Atmosphere: Composition and structure.
- Insolation and temperature,
- Atmospheric pressure and winds,
- Atmospheric moisture, cyclones,
- Classification of climate (Koeppen and Thornthwaite Schemes classification).
- Global climatic changes: Causes and effects.
- Natural Hazards and disasters: Causes, Consequences and management in India
- Environmental Hazards: Floods, droughts, cyclones, earthquakes and landslides;
- Human adjustment to hazards;
- Hazards perception and mitigation;
- Environmental institutions and legislation in India.

### **Unit IV**

**12 Contact Hours**

- Natural Hazards and disasters: Causes, Consequences and management in India
- Environmental Hazards: Floods, droughts, cyclones, earthquakes and landslides;
- Human adjustment to hazards;
- Hazards perception and mitigation;
- Environmental institutions and legislation in India.

### **Suggested Readings**

- Alexanderson, G. E. (1967). Geography of Manufacturing, Prentice Hall, New Jersey.
- Becht, J. E. and L. D. Belzung (1975). World Resource Management, Key to Civilization and Social Achievement, Prentice Hall, New York.
- Cartar, H. (1975). Study of Urban Geography, Arnold, London.
- Chandna, R. C. (1987). An Introduction to Population Geography, Kalyani Publishers, Delhi.
- Grigg, D. B. (1984). An Introduction to Agricultural Geography, Hutchinson, London.
- Gupta, S. L. (1992). Bhu-Akriti Vigyan, Directorate of Hindi Medium Implementation, Delhi.
- Hagget, P. (1979). Geography: A Modern Synthesis, Harper and Row, New York.
- Hart, Shorne R. (1959). Perspectives on the Nature of Geography, Rand McNally, Chicago.

### **Advance Readings**

- Ahrens, C. D. (2018). Meteorology Today: An Introduction to Weather, Climate, and the Environment (12th ed.). Cengage Learning.
- Peel, M. C., Finlayson, B. L., & McMahon, T. A. (2007). Updated world map of the Köppen-Geiger climate classification. Hydrology and Earth System Sciences, 11(5), 1633-1644. (Note: This reference specifically pertains to the Köppen climate classification system.)
- Smithson, P., & Smithson, P. A. (2013). Hazards and Disasters: The Science of Crises. Routledge.
- Smithson, P., & Smithson, P. A. (2013). Hazards and Disasters: The Science of Crises. Routledge.
- Sahni, P., & Sharma, R. C. (2019). Environmental Studies: From Crisis to Cure. New Age International.

### **Online References**

13. <https://swayam.gov.in>
14. <http://www.ncte.nic.in>
15. <http://egyankosh.ac.in>
16. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### **Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

## Programme and Course Mapping

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Analyze the ocean's geomorphology, and understand the movement of ocean water through currents, tides, waves, marine deposits, and coral reefs.	<b>PO1</b>
<b>CO2</b>	Explore different approaches in environmental geography, and dynamic relationship between humans and the biosphere, including the impact on biogeochemical cycles.	<b>PO5</b>
<b>CO3</b>	Understand the concepts of climate and atmospheric processes, and various climate classification schemes.	<b>PO7</b>
<b>CO4</b>	Investigate the causes, consequences, and management of natural hazards and disasters in India, and explore environmental institutions and legislation in India	<b>PO9</b>
<b>CO5</b>	Investigate the causes, consequences, and management of natural hazards and disasters in India, and explore environmental institutions and legislation in India.	<b>PO3</b>

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
<b>Geography II 244A</b>	3		3		3		3		3				3	3

1=lightly mapped

2= moderately mapped

3=strongly mapped

C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3												3	
C O 2					3									3
C O 3							3							
C O 4									3					
C O 5			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>Unit I</b>	
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	
<b>Global</b>	<b>Marine deposits and coral reefs</b>
<b>Employability</b>	<b>Movement of ocean water</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional</b>	
<b>Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	<b>Geomorphology of the ocean floor</b>
<b>Unit II</b>	
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	

<b>Global</b>	
<b>Employability</b>	<b>Man and the Biosphere</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	<b>Human impact on biogeochemical cycles</b>
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	<b>Human impact on biogeochemical cycles</b>
<b>Environment &amp; Sustainability</b>	<b>Life on the Earth</b>
<b>Unit III</b>	
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	<b>Climate</b>
<b>Global</b>	
<b>Employability</b>	<b>Natural Hazards and disasters</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	<b>Environmental institutions and legislation in India</b>
<b>Environment &amp; Sustainability</b>	<b>Atmosphere</b>
<b>Unit IV</b>	
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	<b>Natural Hazards and disasters</b>
<b>Global</b>	<b>Environmental Hazards</b>
<b>Employability</b>	<b>Natural Hazards and disasters , Environmental Hazards</b>
<b>Entrepreneurship</b>	
<b>Skill Development</b>	



<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	<b>Environmental institutions and legislation in Indi</b>
<b>SDG</b>	<b>4, 13</b>
<b>NEP 2020</b>	
<b>POE/4<sup>th</sup> IR</b>	

<b>SEED246A</b>	<b>ECONOMICS II</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Growth and Development of Indian economy				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

1. Understand the forces determining macroeconomic variables such as inflation, unemployment, interest rates, and the exchange rate.
2. Understand and use basic economic principles in day-to-day economic activities.
3. Predict the effect of changes in policy that are expected to impact the economy.

### Course Outcomes:

On the completion of the course student-teachers will be able to:

**CO1:** Understand the nature and scope of macro-economics and its basic principles

**CO2:** Evaluate macro-economic performance using indicators that include inflation, National income etc.

**CO3:** Critical examination of the concept of employment in economy and analyse current situation of employment.

**CO4:** Understand Monetary and fiscal policies of country and illustrate how it works.

### Catalog Description:

Almost every day we hear news reports of economic problems and successes from around the world and the economic reforms adopted by nations at macro level to achieve the economic goals of growth and stability. Macroeconomics deals with the aggregate economy. This course discusses the preliminary concepts associated with the macro variables like determination and measurement of aggregate macroeconomic variable like savings, investment, GDP, money, inflation, unemployment and unequal distribution of income and wealth.

### Course Content

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#### Unit I:

**15 Contact Hours**

#### Introduction: Meaning and Limitations of Macro Economics

- Integration with Micro Economics

- Macro Statics and Macro Dynamics
- National Income: Concept, Component and Measurement of National Income
- Circular flow;
- Real versus nominal
- GDP
- Price indices

**Unit II:**

**15 Contact Hours**

**Theory of Employment**

- Say's Law of Market
- Classical and neo classical Theory of Employment
- Aggregate Demand and Aggregate supply
- Market equilibrium.
- Keynes's Theory of Employment,
- Effective Demand
- Consumption Function

**Unit III:**

**13 Contact Hours**

**Money**

- Functions of money
- quantity theory of money
- determination of money supply and demand;
- RBI and commercial bank, tools of monetary policy credit creation,;
- The investment multiplier, Equilibrium between savings and investment.

**Unit IV**

**12 Contact Hours**

**Economic Policies**

- Objectives of economic Policy.
- Instruments and objectives of Monetary and Fiscal Policy in developing economy,
- Interaction of Monetary Policy
- Fiscal Policy. Problem of inflation and unemployment.

### Advanced Readings

1. Dwiwedi, D. N. Macro Economics. Tata McGraw Hill, New Delhi.
2. Jhingan M. L. Macro-Economic Theory, Vrinda Publications (P) Ltd.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)
5. <https://www.youtube.com/watch?v=GWfrCekEkVE>

**Modes of Evaluation: Modes of Evaluation: Student's performance based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the nature and scope of macro-economics and its basic principles	PO11
CO2	Evaluate macro-economic performance using indicators that include inflation, National income etc.	PO7
CO3	Critical examination of the concept of employment in economy and analyse current situation of employment.	PO9
CO4	Understand Monetary and fiscal policies of country and illustrate how it works.	PO9

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 246A	Economics II		3	2	3			3		2				3	

Programme and Course Mapping															
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3	
CO 1															
CO 2							3								
CO 3									2						
CO 4									2				3		
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															

Unit I	<b>Introduction: Meaning and Limitations of Macro Economics</b>
Local	
Regional	
National	<ul style="list-style-type: none"> <li>National Income: Concept, Component and Measurement of National Income</li> </ul>

Global	
Employability	<ul style="list-style-type: none"> <li>• Integration with Micro Economics</li> <li>• Macro Statics and Macro Dynamics</li> <li>• National Income: Concept, Component and Measurement of National Income</li> <li>• Circular flow;</li> <li>• Real versus nominal</li> <li>• GDP</li> <li>• Price indices</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Integration with Micro Economics</li> <li>• Macro Statics and Macro Dynamics</li> <li>• National Income: Concept, Component and Measurement of National Income</li> <li>• Circular flow;</li> <li>• Real versus nominal</li> <li>• GDP</li> <li>• Price indices</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	<ul style="list-style-type: none"> <li>• Integration with Micro Economics</li> <li>• Macro Statics and Macro Dynamics</li> <li>• National Income: Concept, Component and Measurement of National Income</li> <li>• Circular flow;</li> <li>• Real versus nominal</li> <li>• GDP</li> <li>• Price indices</li> </ul>
<b>Unit II</b>	<b>Theory of Employment</b>

Local	
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Say's Law of Market</li> <li>• Classical and neo classical Theory of Employment</li> <li>• Aggregate Demand and Aggregate supply</li> <li>• Market equilibrium.</li> <li>• Keynes's Theory of Employment,</li> <li>• Effective Demand</li> <li>• Consumption Function</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Say's Law of Market</li> <li>• Classical and neo classical Theory of Employment</li> <li>• Aggregate Demand and Aggregate supply</li> <li>• Market equilibrium.</li> <li>• Keynes's Theory of Employment,</li> <li>• Effective Demand</li> <li>• Consumption Function</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	<ul style="list-style-type: none"> <li>• Say's Law of Market</li> <li>• Classical and neo classical Theory of Employment</li> <li>• Aggregate Demand and Aggregate supply</li> <li>• Market equilibrium.</li> <li>• Keynes's Theory of Employment,</li> <li>• Effective Demand</li> <li>• Consumption Function</li> </ul>
<b>Unit III</b>	<b>Money</b>
Local	
Regional	

National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Functions of money</li> <li>• quantity theory of money</li> <li>• determination of money supply and demand;</li> <li>• RBI and commercial bank, tools of monetary policy credit creation;</li> <li>• The investment multiplier, Equilibrium between savings and investment.</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Functions of money</li> <li>• quantity theory of money</li> <li>• determination of money supply and demand;</li> <li>• RBI and commercial bank, tools of monetary policy credit creation</li> <li>• The investment multiplier, Equilibrium between savings and investment.</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	<ul style="list-style-type: none"> <li>• Functions of money</li> <li>• quantity theory of money</li> <li>• determination of money supply and demand;</li> <li>• RBI and commercial bank, tools of monetary policy credit creation;</li> <li>• The investment multiplier, Equilibrium between savings and investment.</li> </ul>
<b>Unit IV</b>	<b>Economic Policies</b>
Local	
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Objectives of economic Policy.</li> </ul>



	<ul style="list-style-type: none"> <li>• Instruments and objectives of Monetary and Fiscal Policy in developing economy,</li> <li>• Interaction of Monetary Policy</li> <li>• Fiscal Policy. Problem of inflation and unemployment.</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Objectives of economic Policy.</li> <li>• Instruments and objectives of Monetary and Fiscal Policy in developing economy,</li> <li>• Interaction of Monetary Policy</li> <li>• Fiscal Policy. Problem of inflation and unemployment.</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	<ul style="list-style-type: none"> <li>• Objectives of economic Policy.</li> <li>• Instruments and objectives of Monetary and Fiscal Policy in developing economy,</li> <li>• Interaction of Monetary Policy</li> <li>• Fiscal Policy. Problem of inflation and unemployment.</li> </ul>
SDG	Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all (SDG 9.1) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8), End poverty in all its forms everywhere (SDG 1), End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2)
NEP 2020	Professional Education (17.1-17.5), Promoting High-quality research (18.1-18.9), Towards a More Holistic and Multidisciplinary Education (11.1- 11.13), Re-imagining Vocational Education (16.1-16.7)
POE/4 <sup>th</sup> IR	Practical Courses from Industry/Alumni, Case Competitions, Entrepreneurial Program through Innovation System, Focus on Employability Skills (Local/Regional and Global) / Skill Development, Entrepreneurship, Employability

<b>SEED542A</b>	<b>DISASTER MANAGEMENT</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Understating about disasters and risks				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- provide basic conceptual understanding of disaster
- understand approaches of Disaster Management
- acquaint with causes and effects of disasters
- build skills to respond to disaster
- understand role of govt. in disaster management
- understand post disaster effects and remedial measures
- understand role of educational institutes

### Course Outcomes

On completion of this course, the student-teachers will be able to:

**CO1** Take decision of disaster management.

**CO2** Educate remedial measures to society about post disaster effects.

**CO3** Aware the community about disaster management.

### Catalogue Description:

The Programme has been framed with an intention to provide a general concept in the dimensions of disasters caused by nature beyond human control as well as the disasters and environmental hazards induced by human activities with emphasis on Natural disaster, Man- made disaster, Application of GIS and ICT in Preparedness, Response, Rehabilitation and Recovery. This course objective is to meet the needs of people involved in disaster management for both sudden-onset natural disasters (i.e., earthquakes, floods, hurricanes) and slow-onset disasters (i.e., famine,

drought). This course is innovative, skill and employment oriented to attract bright students to the discipline of Disaster Management.

**Unit I:**

**12 hours Lectures**

**Introduction on Disaster**

- Different Types of Disaster
- A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc
- B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail & Road), Structural failures (Building and Bridge), War & Terrorism etc.
- Causes, effects and practical examples for all disasters.

**Unit II:**

**13 hours Lectures**

**Risk and Vulnerability Analysis**

- Risk: Its concept and analysis
- Risk Reduction
- Vulnerability: Its concept and analysis
- Strategic Development for Vulnerability Reduction

**Unit III:**

**10 hours Lectures**

**Disaster Preparedness and Response Preparedness**

- Disaster Preparedness: Concept and Nature
- Disaster Preparedness Plan
- Prediction, Early Warnings and Safety Measures of Disaster.
- Role of Information, Education, Communication, and Training,
- Response
- Disaster Response: Introduction

- Disaster Response Plan
- Communication, Participation, and Activation of Emergency Preparedness Plan
- Search, Rescue, Evacuation and Logistic Management
- Role of Government, International and NGO Bodies
- Psychological Response and Management (Trauma, Stress, Rumour and Panic)
- Relief and Recovery
- Medical Health Response to Different Disasters

#### **Unit IV**

**08 hours Lectures**

#### **Rehabilitation, Reconstruction and Recovery**

- Reconstruction and Rehabilitation as a Means of Development.
- Damage Assessment
- Post Disaster effects and Remedial Measures
- Creation of Long-term Job Opportunities and Livelihood Options
- Disaster Resistant House Construction
- Sanitation and Hygiene
- Education and Awareness
- Dealing with Victims' Psychology
- Long-term Counter Disaster Planning
- Role of Educational Institute

#### **Assignment/ Practicum (Do any One)**

- Case Studies in Cyclone Amphan (May, 2020) in Odisha
- Case study in Uttarakhand Flash Floods and Kashmir Floods
- Case study in Drought Management in Gujarat & Rajasthan
- Landslides in Shiwalik Hills: Case Study

- China floods 2016 and Thailand floods 2017
- Corona Virus Disease Management in India: Case Study
- Any topic relevant to either Natural Disaster or Man-Made Disaster

### **Suggested Text Books**

1. Kumar, Nitesh (2013). Textbook of Disaster Management. Satish Seral Publishing House.
2. Pandey, Mrinalini Disaster management. Wiley Publications.

### **Advanced Readings**

1. Gupta A.K., Niar S.S and Chatterjee S. (2013) Disaster management and Risk Reduction, Role of Environmental Knowledge, Narosa Publishing House, Delhi.
2. J. P. Singhal Disaster Management Laxmi Publications.
3. Jagbir Singh. Disaster Management : Future Challenges and Opportunities K W Publishers Pvt. Ltd.
4. Murthy D.B.N. (2012) Disaster Management, Deep and Deep Publication PVT. Ltd. New Delhi.

### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### **Modes of Evaluation: Students' Performance Based on Written Examination**

#### **Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Examination</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Take decision of disaster management.	<b>PO5</b>
<b>CO2</b>	Educate remedial measures to society about post disaster effects.	<b>PO3</b>
<b>CO3</b>	Aware the community about disaster management.	<b>PO7</b>

		Teaching Competencies	Effective Communication	Critical thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self Development and Community	Technology Skills	Professional Competencies	General and Specific Need &	Pedagogical Content Analysis	Classroom Management	Hands on Experience	Research and Entrepreneurial
Course Code	Course Title	P O1	P O2	P O3	P O4	P O5	P O6	P O7	P O8	P O9	PO 10	PO 11	PSO1	PS O2	PS O3
SEED5 42A	Disaster Management			3		3		3						3	

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1					5									
C O 2			3										3	
C O 3							3							
1=lightly mapped					2= moderately mapped					3=strongly mapped				

Unit I	Introduction on Disaster
Local	<p>Different Types of Disaster</p> <p>A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc</p> <p>B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail &amp; Road), Structural failures (Building and Bridge), War &amp; Terrorism etc.</p> <p>Causes, effects and practical examples for all disasters.</p>
Regional	<p>Different Types of Disaster</p> <p>A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc</p> <p>B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail &amp; Road), Structural failures (Building and Bridge), War &amp; Terrorism etc.</p> <p>Causes, effects and practical examples for all disasters.</p>
National	<p>Different Types of Disaster</p> <p>A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc</p> <p>B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail &amp; Road), Structural failures (Building and Bridge), War &amp; Terrorism etc.</p> <p>Causes, effects and practical examples for all disasters.</p>
Global	Different Types of Disaster

	<p>A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc</p> <p>B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail &amp; Road), Structural failures (Building and Bridge), War &amp; Terrorism etc.</p> <p>Causes, effects and practical examples for all disasters.</p>
Employability	<p>Different Types of Disaster</p> <p>A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc</p> <p>B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail &amp; Road), Structural failures (Building and Bridge), War &amp; Terrorism etc.</p> <p>Causes, effects and practical examples for all disasters.</p>
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	<p>Different Types of Disaster</p> <p>A) Natural Disaster: such as Flood, Cyclone, Earthquakes, Landslides etc</p> <p>B) Man-made Disaster: such as Fire, Industrial Pollution, Nuclear Disaster, Biological Disasters, Accidents (Air, Sea, Rail &amp; Road), Structural failures (Building and Bridge), War &amp; Terrorism etc.</p> <p>Causes, effects and practical examples for all disasters.</p>
<b>Unit II</b>	<b>Risk and Vulnerability Analysis</b>
Local	<p>Risk: Its concept and analysis</p> <p>Risk Reduction</p> <p>Vulnerability: Its concept and analysis</p> <p>Strategic Development for Vulnerability Reduction</p>
Regional	<p>Risk: Its concept and analysis</p> <p>Risk Reduction</p>



	<p>Vulnerability: Its concept and analysis</p> <p>Strategic Development for Vulnerability Reduction</p>
National	<p>Risk: Its concept and analysis</p> <p>Risk Reduction</p> <p>Vulnerability: Its concept and analysis</p> <p>Strategic Development for Vulnerability Reduction</p>
Global	<p>Risk: Its concept and analysis</p> <p>Risk Reduction</p> <p>Vulnerability: Its concept and analysis</p> <p>Strategic Development for Vulnerability Reduction</p>
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	<p>Risk: Its concept and analysis</p> <p>Risk Reduction</p> <p>Vulnerability: Its concept and analysis</p> <p>Strategic Development for Vulnerability Reduction</p>
<b>Unit III</b>	<b>Disaster Preparedness and Response Preparedness</b>
Local	<p>Search, Rescue, Evacuation and Logistic Management</p> <p>Role of Government, International and NGO Bodies</p>
Regional	Role of Government, International and NGO Bodies
National	Role of Government, International and NGO Bodies
Global	<p>Psychological Response and Management (Trauma, Stress, Rumour and Panic)</p> <p>Relief and Recovery</p> <p>Medical Health Response to Different Disasters</p>
Employability	<p>Disaster Preparedness: Concept and Nature</p> <p>Disaster Preparedness Plan</p>

	<p>Prediction, Early Warnings and Safety Measures of Disaster.</p> <p>Role of Information, Education, Communication, and Training, Response</p> <p>Disaster Response: Introduction</p> <p>Disaster Response Plan</p>
Entrepreneurship	
Skill Development	
Professional Ethics	<p>Role of Information, Education, Communication, and Training, Response</p> <p>Disaster Response: Introduction</p> <p>Disaster Response Plan</p>
Gender	
Human Values	
Environment & Sustainability	Prediction, Early Warnings and Safety Measures of Disaster.
Unit IV	<b>Rehabilitation, Reconstruction and Recovery</b>
Local	<p>Creation of Long-term Job Opportunities and Livelihood Options</p> <p>Disaster Resistant House Construction</p> <p>Sanitation and Hygiene</p>
Regional	<p style="text-align: center;">Damage Assessment</p> <p>Post Disaster effects and Remedial Measures</p>
National	<p>Disaster Resistant House Construction</p> <p>Sanitation and Hygiene</p> <p>Creation of Long-term Job Opportunities and Livelihood Options</p>
Global	Creation of Long-term Job Opportunities and Livelihood Options
Employability	<p>Education and Awareness</p> <p>Dealing with Victims' Psychology</p> <p>Role of Educational Institute</p> <p>Reconstruction and Rehabilitation as a Means of Development.</p>

Entrepreneurship	
Skill Development	Dealing with Victims' Psychology, Reconstruction and Rehabilitation as a Means of Development. Damage Assessment
Professional Ethics	Education and Awareness Dealing with Victims' Psychology Role of Educational Institute
Gender	
Human Values	
Environment & Sustainability	
SDG	Goal 11: Sustainable Cities and Communities, there needs to be a future in which cities provide opportunities for all, with access to basic services, energy, housing, transportation and more. Goal 13: Climate Action, Climate change is a global challenge that affects everyone, everywhere.
NEP 2020	Curriculum and Pedagogy in Schools, Teachers, Equitable and Inclusive Education: Learning for All, Towards a More Holistic and Multidisciplinary Education Technology Use & Integration
POE/4 <sup>th</sup> IR	Simulation and Technical Skills that match Industry Needs

<b>SEMESTER V</b>
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<b>SEED 377A</b>	<b>CHILDHOOD AND GROWING UP</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	<b>Childhood and Adolescence</b>				
<b>Co-requisites</b>	--				

### Course Objectives:

The course will enable the student-teachers to:

- Understand concept of growth and development, factors influence development and individual difference in individuals
- Develop understanding of the role of socio-cultural context in shaping human development, especially with respect to the Indian context.
- Develop theoretical perspectives and understanding of dimensions and stages of human development and developmental tasks.
- Develop understanding on stages and dimensions of development, views of Erickson, Piaget and Vygotsky on development
- Conceptualise nature of memory, transfer of learning, motivation and creativity and process of its development during growing up
- Understand nature of adolescence and life skills education and role of teacher counselor and parents in dealing with adolescence problems.
- Understand the nature of child abuse, substance abuse, peer pressure and its bearing on childhood and adolescence

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Understand the concept, nature, characteristics of growth and development during childhood and adolescence.

**CO2:** Appreciate the contribution of the school, society and Peer groups on various aspects of development.

**CO3:** Update their knowledge about the personality development, Motivation, creativity and transfer of learning.

**CO4:** Critically examine the learning as divergent process

**CO5:** Understand the concept and importance of individual differences

### **Catalog Description**

Human being develops through layers of multiple complex processes starting even before birth. All minute phases of growth and development present interesting avenues of learning. This course introduces student teachers to the study of childhood, child development and adolescence. The main focus in this course is to enable student teachers to have an understanding about childhood as constructed within socio-cultural realities existing in their lived contexts; family, schools, neighborhood and community. The student teachers will learn about concept of adolescence in realistic and contextual frames, theories of child development, childhood and adolescence as developed at different socio-economic and cultural settings and will also learn to situate. The course also addresses issues and concerns of adolescents in Indian situation. The course also highlights why it is essential for every teacher to understand human development at different phases

### **Course Content**

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#### **Unit I:**

**15 Contact Hours**

##### **Child as a Developing Individual**

- Individual differences: Concept and Types (intra and inter)
- Implications of individual differences (biological, physical, emotional, cognitive, social and moral) for organizing educational programmes (Curricular, Other Curricular, School and Classroom climate building)

#### **Unit II:**

**12 Contact Hours**

##### **Development during Childhood and Adolescence**

- Cognitive and language development: cognitive developmental stages of Piaget
- Vygotsky's theory of concept and language development; language development theory of Chomsky

#### **Unit III:**

**12 Contact Hours**

##### **Memory, Motivation and Creativity during Growing up**

- Transfer of learning: Meaning, nature, types and role of teacher for promoting positive transfer of learning
- Motivation: Meaning, nature and techniques of motivating learners. Developing self-motivation.
- Creativity: Meaning, nature and strategies for nurturing creativity

#### **Unit IV**

**12 Contact Hours**

#### **Addressing the Issues of Childhood and Adolescence**

- Child abuse: Types, causes and effect and strategies
- Substance abuse: Meaning, categories, causes and strategies
- Peer pressure: Meaning, importance, effects and strategies
- Behaviour disorder: Meaning, types, effects and strategies for dealing

#### **Suggested Activities**

1. Observe children during their playtime in your practicing school (or nearby school) for a week; observe their play activities, relationships, communication with their peers. On the basis of that prepare a report about understanding childhood.
2. Observe and interact with ten adolescent children living in different contexts (rural areas, urban slum, dalit household, urban area, and working/street people) and compare their lifestyle and problems.
3. View any two movies out of the following : 1. Smile Pinky (2008), 2. Born into Brothels (2014), 3. Salaam Bombay (1988), 4. Slumdog Millionaire (2009), 5. Gippie (2013) and 6. Mehek (2007). Discuss their content, picturization, characters and messages in the context of issues and concerns of childhood/adolescence
1. Collect five folk tale/stories/indigenous games from children told by elders from nearby community. Discuss them in your class.
2. Compile a status of Adolescence population and academic profile for the last 5(five) years and make a presentation in a seminar mode (focus area can be chosen from any specific component such as: disability, girl student, tribal, Muslim girls etc).

#### **Text Book**

1. NCERT: Module on Adolescence Education

### Advanced Readings

1. Huslok, E.B. (2003). Child Growth and Development, Tata McGraw Hill
2. Kakkar, S (1978). The Inner World: A Psychoanalytic Study of Childhood and Society in India. Oxford University Press, New Delhi
3. Singh, A (Ed), (2015). Human Development: A Life Span Approach. Orient Black Swan, Delhi
4. Woolfolk, A. (2008). Educational Psychology. Pearson Education

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the concept, nature, characteristics of growth and development during childhood and adolescence.	PO11
CO2	Appreciate the contribution of the school, society and Peer groups on various aspects of development.	PO7
CO3	Update their knowledge about the personality development, Motivation, creativity and transfer of learning.	PO10
CO4	Critically examine the learning as divergent process	PO3
CO5	Understand the concept and importance of individual differences	PO6

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 377A	<b>Childhood and Growing Up</b>			3		2		3			2	3		3	

1= lightly mapped

2= moderately mapped

3=strongly mapped



<b>SEED345A</b>	<b>LANGUAGE ACROSS THE CURRICULUM</b>	L	T	P	C
<b>Version2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Language Skills				
<b>Co-requisites</b>	--				

### **Course Objectives**

The course will enable the student-teachers to –

- Introduce the theory and practice of a language across the curriculum.
- Build a perspective in the teaching of various subjects using a common language at the school level.
- Guide the students to explore language in subject-specific contexts by relating it to the overall objectives of the curriculum.
- Provide the participants with hands on experience of classroom practices which can be replicated in their specific contexts.

### **Course Outcomes**

**On the completion of the course the student-teachers will be able to:**

**CO1.** Formulate the text and discourse markers in an organized manner.

**CO2.** Construct the new sentences in English verbally and non-verbally.

### **Catalogue Description**

The role of languages across the curriculum is being increasingly documented, it is important for all teachers to understand the importance of language across the curriculum and develop approaches that will help share the responsibility for the development of learners and the development of languages. We need to understand that language education is not confined to the language classroom. A science, social science or mathematics class is necessarily a language class also. Learning the subject means learning the terminology, understanding the concepts, and being able to discuss and write about them critically. Language is the medium for comprehending ideas, for reflection and thinking, as well as for expression and communication. Enhancing one's faculty in the language of instruction is thus a vital need of

student-teachers, irrespective of the subject areas that they are going to teach. In India, language and literacy are generally seen as the concern of only the language teachers. However, no matter what the subject, teaching cannot take place in a language-free environment. This course is visualized to develop understanding about the nature and importance of classroom discourses; developing reading for information. This will strengthen the ability to 'read', 'think', 'discuss and communicate' as well as 'write' in the language of content. All possible efforts will be made to *build networks across different subjects and language* in order to enhance levels of language proficiency. Therefore, student-teachers will need to be familiar with theoretical issues and pedagogical issues of this course. The students will develop competence in analysing current school practices and coming up with appropriate alternatives for language teaching and learning across school subjects.

## **Course Content**

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### **Unit- I**

**15 Contact Hours**

#### **Language Background of Students and Classroom Discourse**

- Understanding Multilingualism in the Classroom
- Consequences of using Multilingualism as Resource
- Home Language and School Language
- Dialect
- Classroom Discourse - oral language
- Discussion as a tool for Learning
- The Nature of Questioning in the Classroom -Types of Questions and Teacher's Role
- Language in Contact- Diglossia, Code-switching and Code-mixing, Pidgins and Creoles.

### **Unit II**

**12 Contact Hours**

#### **Developing Language Skills Grammar in English**

- Language Skills
- Listening and Speaking
- Sub skills of Listening and Speaking Skills: Tasks
- Materials and Resources for developing the Listening and Speaking skills:
- Story- Telling
- Dialogues
- Situational conversations
- Role plays
- Simulations
- Speech, Games and Contexts
- Language Laboratories
- Pictures
- Authentic Materials and
- Multi-media Resources
- Reading
- Importance of understanding the development of Reading Skills
- Sub Skills of Reading
- Reading Aloud and Silent Reading
- Extensive and Intensive Reading
- Study Skills including using thesauruses, dictionary, encyclopedia, etc
- Writing
- Stages of Writing

- Process of Writing
- Formal and Informal Writing such as poetry, short story, letter, diary, notices, articles reports, dialogue, speech, advertisement, etc
- Reference Skills
- Study Skills
- Higher Order Skills.

### **Practicum (Any Two)**

- Discussion on role and importance of dialect and standard language.
- Interview some technical people and find out which language do they prefer to use? And why?
- As a student you must have felt that sometimes the language of instruction did not help in understanding of the text. Keeping that in view how will you facilitate your students to understand the content?
- Comprehending and analyzing the texts.
- Narrating / describing a related account from one's life experience.
- Writing — based on the text, e.g. summary of the text, extrapolation of story, converting a situation into a dialogue, etc.
- Choose a few words from different text of content areas and give examples how similar word / language used in different context for convey the meaning.
- Ask the students to describe a scientific/mathematical/environmental concept in their language and then in the language that they are learning in school.
- Analysis of structure of the article, identifying sub-headings, key words, sequencing of ideas, use of concrete details, illustrations and / or statistical representations, etc. (guided working in pairs)
- Use texts from content areas in the language classroom to develop reading comprehension and reading strategies.

### Advanced Readings

1. Agnihotri, R. K. & Khanna, A. L. (Eds.) (1994). *Second Language Acquisition*. Sage Publications, New Delhi.
2. Agnihotri, R. K. (2007). *Hindi: An Essential Grammar*. Routledge, London.
3. Agnihotri, R. K. (2007). Towards a Pedagogical Paradigm Rooted in Multilinguality. *International Multilingual Research Journal*, Vol. (2) 1-10.
4. Reading Development Cell, NCERT (2008). *Reading for Meaning*. NCERT, New Delhi.
5. Yule, G. (2006). *The Study of Language*. Cambridge University Press, Delhi.

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Formulate the text and discourse markers in an organized manner.	PO9
CO2	Construct the new sentences in English verbally and non-verbally.	PO2

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and	Technology Skills	Professional Competencies	General and Specific Need & Demand	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
SEE D 345A	Language Across the Curriculum		3							3				3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1									3					
C O 2		3											3	

1=lightly mapped

2= moderately mapped

3=strongly mapped

Unit I	Nature of Classroom Discourse
Local	Language in Contact- Diglossia, Code-switching and Code-mixing, Pidgins and Creoles. Home Language and School Language
Regional	Varied language contexts of the Learners: <ul style="list-style-type: none"> <li>Dialect</li> <li>Regional Varieties</li> </ul>
National	Consequences of using Multilingualism as Resource Understanding Multilingualism in the Classroom: Challenges and Strategies.

<b>Global</b>	Standard Language Home Language and School Language
<b>Employability</b>	Classroom Discourse- Strategies for using oral language in the classroom
<b>Entrepreneurship</b>	
<b>Skill Development</b>	Discussion as a Tool for Learning. The nature of Questioning in the Classroom — types of questions and teacher's role.
<b>Professional Ethics</b>	Understanding Multilingualism in the Classroom: Challenges and Strategies.
<b>Gender</b>	
<b>Human Values</b>	Language in Contact- Diglossia, Code-switching and Code-mixing, Pidgins and Creoles.
<b>Environment &amp; Sustainability</b>	
<b>Unit II</b>	<b>Developing Language Skills Grammar in English</b>
<b>Local</b>	Language Skills
<b>Regional</b>	Speech, Games and Contexts
<b>National</b>	Language Skills
<b>Global</b>	Language Skills Study Skills including using thesauruses, dictionary, encyclopedia etc
<b>Employability</b>	Formal and Informal Writing such as poetry, short story, letter, diary, notices, articles, reports, dialogue, speech, advertisement etc.
<b>Entrepreneurship</b>	
<b>Skill Development</b>	Language Skills
<b>Professional Ethics</b>	Formal and Informal Writing such as poetry, short story, letter, diary, notices, articles, reports, dialogue, speech, advertisement etc. Reference Skills.
<b>Gender</b>	
<b>Human Values</b>	Story- Telling Dialogues Situational conversations Role plays
<b>Environment &amp; Sustainability</b>	
<b>SDG</b>	Quality primary/ Secondary Education for all (SDG4.1) and Skills for Decent Work (SDG 4.4)
<b>NEP 2020</b>	Equitable and Inclusive Education: Learning for All (6.1- 6.20) , Promotion of Indian Languages, Arts & culture (22.1-22.15)and Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
<b>POE/4<sup>th</sup> IR</b>	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development, Soft Skills and Employability

<b>SEED347A</b>	<b>TOTAL QUALITY IN MANAGEMENT IN EDUCATION</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Teacher and teacher education programmes				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- To develop the understanding of the concept, objectives and importance of total quality management in education.
- To acquaint the students with various parameters of assessing institutions.
- To develop the ability to use various tools for assessing the institutions.
- To develop an understanding of participatory management and team building process.
- To develop an understanding and ability of collecting information for decision making.

### Course Outcomes

On completion of this course, the student-teachers will be able to:

- CO1.** Identify the key aspects of the quality improvement cycle and to select and use appropriate tools and techniques for controlling, improving and measuring quality.
- CO2.** Explain the concepts of total quality management and total quality education.
- CO3.** Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems.
- CO4.** Critically appraise the organizational, communication and teamwork requirements for effective quality management.
- CO5.** Critically analyze the strategic issues in quality management, including current issues and developments, and to devise and evaluate quality implementation plans.

### Catalog Description

Quality education is a great concern in many societies across the world. In a highly competitive education sector, the success of academic institutions depends on the quality of education. Quality management is a system that serves to control quality in the critical activities of an organization by bringing together resources, equipment, people and procedures. Total quality management is a philosophy, methodology and system of tools



aimed to create and maintain mechanism of organization's continuous improvement. It uses techniques and principles such as quality function deployment, teaching methods, service quality management, quality audits and Six Sigma to control quality in every sphere of activity in an organization. It presents several TQM frameworks, concepts, and quality improvement tools necessary for implementing the quality culture that characterizes world class organizations.

## Course Content

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**Unit I:** **15** **Contact**  
**Hours**

### Concept of Quality and Quality Management

- Concept of quality and quality management
- Issues in quality management
- Concept of quality in education
- Western and Indian perspective in quality education
- Bases of quality in education

**Unit II:** **12 Contact Hours**

### Total Quality Management

- Concept, development and objectives of TQM in education
- Advantages and disadvantages of TQM in Education
- Principles of TQM
- Application of TQM in education
- TQM in Indian school
- Time management and quality management through teacher education.

**Unit III:** **10 Contact Hours**

### Assessment of Institutions

- Parameters of assessment
- Tools of assessment

- SWOT analysis
- Qualitative vs. quantitative analysis
- Concept of institutional climate
- NAAC
- NIRF.

#### **Unit IV:**

**12 Contact Hours**

#### **Participatory Management and Decision-Making Process**

- Concept of participatory management
- team building process
- leadership in TQM institutions
- decision making: meaning, process and techniques.

#### **Suggested Text Books**

1. Kumar, P.S. Mohan (2002). Total Quality Management in Higher Education and Relevance of Accreditation, University News AIU, New Delhi.
2. Lessem, R. (1997). Handbook of Total Quality Learning: Building a learning Organization, New Delhi: Beacon Book.
3. Mukhopadhyay, M. (2001). Total Quality Management, New Delhi, NIEPA.

#### **Advanced Readings**

1. Lal, H. (1990). Total Quality Management: A practical approach, New Delhi: New Age International Publishers.
2. NAAC (2019). Institutional Accreditation- Manual for Universities. NAAC Bangalore.
3. Sharma, D.D. Total Quality Management, Principles, Practices and Cases, Sultan Chand and Sons.

#### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Identify the key aspects of the quality improvement cycle and to select and use appropriate tools and techniques for controlling, improving and measuring quality.	<b>PO4</b>
<b>CO2</b>	Explain the concepts of total quality management and total quality education.	<b>PO7</b>
<b>CO3</b>	Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems.	<b>PO7</b>
<b>CO4</b>	Critically appraise the organizational, communication and teamwork requirements for effective quality management.	<b>PO3</b>
<b>CO5</b>	Critically analyze the strategic issues in quality management, including current issues and developments, and to devise and evaluate quality implementation plans.	<b>PO4</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 347A	Total Quality Management in Education			3	3			2					3		3

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	SO1	SO2	SO3	
CO1				3								3			
CO2							2								3
CO3							2								
CO4			3												
CO5				3											

<b>Unit I</b>	<b>Concept of Quality and Quality Management</b>
Local	
Regional	
National	
Global	Western and Indian perspective in quality education
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	Concept of quality and quality management
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Total Quality Management</b>
Local	TQM in Indian school
Regional	TQM in Indian school
National	TQM in Indian school
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	Time management and quality management through teacher education
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Assessment of Institutions</b>
Local	
Regional	
National	NAAC, NIRF
Global	
Employability	Tools of assessment
Entrepreneurship	
Skill Development	SWOT analysis
Professional Ethics	
Gender	
Human Values	Qualitative vs. quantitative analysis
Environment &	

Sustainability	
Unit IV	<b>Participatory Management and Decision-Making Process</b>
Local	
Regional	
National	
Global	
Employability	leadership in TQM institutions
Entrepreneurship	team building process
Skill Development	participatory management
Professional Ethics	decision making: meaning, process and techniques
Gender	
Human Values	
Environment & Sustainability	

<b>SEED349A</b>	<b>STORY TELLING AND CHILDREN'S LITERATURE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Language Skills				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Examine and develop criteria of evaluating a variety of children's literature including picture books, folk tales, activity books, fiction and non-fiction.
- Develop skills of story-telling and the creative use of children's literature.
- Develop skills of building up a resource of stories and children's literature for use in classrooms.
- Learn to use stories as a medium to facilitate expression, imagination and creative use of language in 'children.

### Course Outcomes

On the completion of the course the student-teachers will be able to :

**CO1.** Demonstrate the story telling activity by using the children's literature.

**CO2.** Pose for different expression on picture books, folk tales, and fiction and non-fiction literature.

**CO3.** Develop story folders consisting story cards with respect to age and interest.

### Catalogue Description

Through this colloquia activity, students are trained to examine and develop criteria of evaluating children's literature, develop skills of building resources for children and hone their skills of story-telling.

### Course Content

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#### Workshops

A series of workshops could be organized, spread over the academic year, on specific themes suggested below:

### **Story-telling**

A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.

### **Bulletin Board**

Students in groups of 5-6 will take charge of a bulletin board for a given period of time. The task will be to take up a thematic topic and put up materials related to selected stories, in order to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.

### **Story Folder**

Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.

### **Time Frame**

Story-telling and children's literature activities are expected to be organised once every week for two hours. Workshops shall be organised for a longer duration, as and when possible.

### **Supervisory Support**

Students will work under the professional guidance of resource persons as well as the facilitation of faculty supervisors.

### **Assessment**

Students will be internally assessed by their respective supervisors using the following bases and criteria:

Regularity	• Participation in Workshops and related sessions
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Bulletin Board	• Selection of the theme and presentation of stories
Story Folder	• Collection
	• References
	• Classification and retrieval system
	• Developing an evaluation criteria for children's literature
Story Telling	• Selection of story as per theme, age etc.
	• Animation
	• Voices Pitches, Clarity
	• Involvement, Eye Contact, Gestures, Book Handling

### Advanced Readings

1. Chambers, A. (2011) Tell Me: Children, Reading and Talk with The Reading Environment. Stroud: Thimble Press.
2. Cremin, T., Mottram, M., Collins, F., Powell, S. and Safford, K. (2009) Teachers as Readers: Building Communities of Readers 2007-08 Executive Summary. The United Kingdom Literacy Association. Available from: [http://www.ukla.org/downloads/teachers\\_as\\_readers.pdf](http://www.ukla.org/downloads/teachers_as_readers.pdf) (accessed 18 November 2014).
3. Dasgupta A. (1995) Telling Tales: Children's Literature in India. London: Taylor and Francis.
4. Gamble, N. (2013) Exploring Children's Literature: Reading with Pleasure and Purpose. London: Sage Publications.
5. Phinn, G. (2009) Teaching Poetry in the Primary Classroom. Cambridge: Cambridge University Press.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

### Examination Scheme:

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Demonstrate the story telling activity by using the children’s literature.	<b>PO10</b>
<b>CO2</b>	Pose for different expression on picture books, folk tales, and fiction and non-fiction literature.	<b>PO3</b>
<b>CO3</b>	Develop story folders consisting story cards with respect to age and interest.	<b>PO7</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills.
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEE D 349A	Story Telling and Children's Literature			3				3			3		3		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CO 1				3						3		3		
CO 2			3										3	

1=lightly mapped                      2= moderately mapped                      3=strongly mapped

Unit I	Story-telling
Local	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.

Regional	
National	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.
Global	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.
Employability	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.
Entrepreneurship	
Skill Development	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.
Professional Ethics	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.
Gender	
Human Values	A series of discussions with students to identify skills of story-telling, relevant and interesting stories that children enjoy at different age levels. Subsequently, students will tell stories amongst peer groups, with the facilitation of supervisors. Groups will then critically reflect on story presentations. Workshops shall be organized with the participation of professional story tellers in Hindi and English.
Environment & Sustainability	

<b>Unit II</b>	<b>Bulletin Board</b>
Local	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Regional	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
National	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Global	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Employability	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Entrepreneurship	
Skill Development	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Professional Ethics	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Gender	
Human Values	Students in groups of 5-6 will take charge of a bulletin board for a given period. The task will be to take up a thematic topic and put-up materials related to selected stories, to learn formal ways of attracting children's attention. Groups can then share their experiences during whole class discussions.
Environment & Sustainability	

<b>Unit III</b>	<b>Story Folder</b>
Local	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
Regional	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
National	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
Global	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
Employability	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
Entrepreneurship	
Skill Development	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.

Professional Ethics	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
Gender	
Human Values	Students will classify available stories into different categories. Each story card will have key information about the story that is thus classified. This will enable students to develop a portfolio of stories that would be appropriate for specific age levels and interests.
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED351A</b>	<b>ACADEMIC ENRICHMENT ACTIVITIES</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Observation and Analytical Skills				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Interact with elementary school children.
- Explore creative ways of organizing activities for children.
- Prepare report on various school activities.
- Reflect upon their experiences.

### Course Outcomes

On the completion of the course, student-teachers will be able to:

**CO1:** Experiment different scholastic and non-scholastic activities in the school campus.

**CO2:** Associate themselves with school engagement activities.

### Course Overview

This course is designed with a view to provide practical exposure in developing educational games, developing teaching aids and models with respect to different pedagogical subjects. The course aims at providing education beyond the four walls of classrooms.

### Objectives

The course will enable the student-teachers to –

- Enhance critical thinking skills through self-exploration and class experiences.
- Give teacher trainees the confidence and skills to successfully transition to knowledge and assist them in their personal development of life skills.
- Teach classroom skills to prepare students for higher level of teaching.
- Foster positive relationships with peers, faculty, and staff.



- Gain leadership skills through classroom activities, discussions, and cultural experiences.
- Develop strategies and resources for students to balance school, work, and personal commitments.

### Suggested Activities

**Activity 1:** Indoor educational games.

**Activity 2:** Self-check quizzes.

**Activity 3:** Preparation of creative teaching aids/models.

**Activity 4:** Developing various teaching skills.

**Activity 5:** Innovative pedagogies in education.

**Activity 6:** Recent policies practices in teacher education.

**Activity 7:** Encouraging them to participate in seminars, conferences and workshops.

**Activity 8:** Encouraging teacher trainees for publication of research papers in educational journal.

**Activity 9:** Preparing them for organizing seminars, conferences and workshops.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

### Examination Scheme:

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Experiment different scholastic and non-scholastic activities in the school campus.	PO3
CO2	Associate themselves with school engagement activities.	PO5

1= lightly mapped

2= Moderately mapped

3=Strongly mapped

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and	Technology Skills	Professional Competencies	General and Specific Need &	Pedagogical Content Analysis	Developmental tasks	Diverse Needs:	Research and
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PS O1	PS O2	PS O3
SEED351 A	ACADEMIC ENRICHMENT ACTIVITIES			3		3							3	3	

Unit I	Activity 1: Indoor educational games. Activity 2: Self-check quizzes.
Local	Indoor educational games.
Regional	Indoor educational games.
National	Indoor educational games.
Global	Indoor educational games.
Employability	
Entrepreneurship	
Skill Development	

Professional Ethics	Self-check quizzes.
Gender	
Human Values	
Environment & Sustainability	
Unit II	<b>Activity 3:</b> Preparation of creative teaching aids/models. <b>Activity 4:</b> Developing various teaching skills.
Local	Developing various teaching skills.
Regional	Developing various teaching skills.
National	Developing various teaching skills.
Global	
Employability	Developing various teaching skills.
Entrepreneurship	
Skill Development	Preparation of creative teaching aids/models.
Professional Ethics	Developing various teaching skills.
Gender	
Human Values	
Environment & Sustainability	
Unit III	<b>Activity 5:</b> Innovative pedagogies in education. <b>Activity 6:</b> Recent policies practices in teacher education.
Local	Innovative pedagogies in education.
Regional	Innovative pedagogies in education.
National	Innovative pedagogies in education.
Global	Recent policies practices in teacher education.
Employability	Innovative pedagogies in education.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment &	

Sustainability	
Unit IV	<p><b>Activity 7:</b> Encouraging them to participate in seminars, conferences and workshops.</p> <p><b>Activity 8:</b> Encouraging teacher trainees for publication of research papers in educational journal.</p> <p><b>Activity 9:</b> Preparing them for organizing seminars, conferences and workshops.</p>
Local	Encouraging teacher trainees for publication of research papers in educational journal.
Regional	Encouraging teacher trainees for publication of research papers in educational journal.
National	Encouraging teacher trainees for publication of research papers in educational journal.
Global	Encouraging teacher trainees for publication of research papers in educational journal.
Employability	
Entrepreneurship	
Skill Development	Encouraging teacher trainees for publication of research papers in educational journal.
Professional Ethics	Preparing them for organizing seminars, conferences and workshops.
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
NEP 2020	5.15. Teachers will be given continuous opportunities for self-improvement and to learn the latest innovations and advances in their professions.
POE/4 <sup>th</sup> IR	Skill Development and Employability

<b>SEED353A</b>	<b>SCHOOL ENGAGEMENT I</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Observation and Analytical Skills				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Interact with elementary school children.
- Explore creative ways of organizing activities for children.
- Prepare report on various school activities.
- Reflect upon their experiences.

### Course Outcomes

On the completion of the course, student-teachers will be able to:

**CO1:** Experiment different scholastic and non-scholastic activities in the school campus.

**CO2:** Associate themselves with school engagement activities.

### Catalogue Description

The school is considered as a laboratory for student-teachers. This course provides an overall exposure to the students regarding the scholastic and co-scholastic activities carried out in the school. The students are engaged in planning, organizing and executing some of the activities in school campus.

### Course Content

**25 Contact Hours**

### Suggested Activities

**Activity 1:** Morning Assembly Report

**Activity 2:** Observation on students' movements in schools and classroom sitting postures in the school - Report

**Activity 3:** Organizing Indoor and Outdoor games – Report

**Activity 4:** Student interaction with friends and family - Report

**Activity 5:** Study of a student with special need - Report

**Activity 6:** Critical study of Mid-day-meal - Report

**Activity 7:** Overall observation and commentary about the School

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Experiment different scholastic and non-scholastic activities in the school campus.	<b>PO3</b>
<b>CO2</b>	Associate themselves with school engagement activities.	<b>PO5</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and	Technology Skills	Professional Competencies	General and Specific Need &	Pedagogical Content Analysis	Developmental tasks	Diverse Needs:	Research and Entrepreneurial
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PS O1	PS O2	PS O3

SEED353 A	SCHOOL ENGAGEMENT NT I			3		3							3	3	
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1= lightly mapped

2= Moderately mapped

3=Strongly mapped

Unit 1	School Engagement I
Activities	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Local	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Regional	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
National	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Global	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Employability	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Entrepreneurship	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Skill Development	Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Professional Ethics	Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Gender	Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Human Values	Activity 1: Morning Assembly Report Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report
Environment & Sustainability	Activity 2: Observation on students' movements in schools and classroom sitting postures in the school - Report

SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Activities	Activity 3: Organizing Indoor and Outdoor games – Report Activity 4: Student interaction with friends and family - Report
Local	Activity 3: Organizing Indoor and Outdoor games – Report Activity 4: Student interaction with friends and family - Report
Regional	Activity 3: Organizing Indoor and Outdoor games – Report Activity 4: Student interaction with friends and family - Report
National	Activity 3: Organizing Indoor and Outdoor games – Report Activity 4: Student interaction with friends and family - Report
Global	Activity 3: Organizing Indoor and Outdoor games – Report Activity 4: Student interaction with friends and family - Report
Employability	
Entrepreneurship	
Skill Development	Activity 3: Organizing Indoor and Outdoor games – Report
Professional Ethics	
Gender	Activity 4: Student interaction with friends and family - Report
Human Values	Activity 4: Student interaction with friends and family - Report
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Activities	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
Local	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
Regional	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
National	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
Global	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
Employability	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
Entrepreneurship	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report



Skill Development	Activity 5: Study of a student with special need - Report
Professional Ethics	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
Gender	
Human Values	Activity 6: Critical study of Mid-day-meal - Report
Environment & Sustainability	Activity 5: Study of a student with special need - Report Activity 6: Critical study of Mid-day-meal - Report
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
<b>Activity</b>	<b>Activity 7: Overall observation and commentary about the School</b>
Local	<b>Activity 7: Overall observation and commentary about the School</b>
Regional	<b>Activity 7: Overall observation and commentary about the School</b>
National	<b>Activity 7: Overall observation and commentary about the School</b>
Global	<b>Activity 7: Overall observation and commentary about the School</b>
Employability	<b>Activity 7: Overall observation and commentary about the School</b>
Entrepreneurship	<b>Activity 7: Overall observation and commentary about the School</b>
Skill Development	<b>Activity 7: Overall observation and commentary about the School</b>
Professional Ethics	<b>Activity 7: Overall observation and commentary about the School</b>
Gender	
Human Values	<b>Activity 7: Overall observation and commentary about the School</b>
Environment & Sustainability	<b>Activity 7: Overall observation and commentary about the School</b>
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development

**\*LIBERAL COURSE (OPTIONAL III)**

<b>SEED355A</b>	<b>ENGLISH III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Expression of Thoughts				
<b>Co-requisites</b>	--				

**Course Objectives**

The course will enable the student-teachers to:

- Be familiar with a selection of important works within English-language prose literature.
- Have knowledge of different types of English-language prose.
- Use the English-language terminology connected to literary prose.
- Have an ability to read literary prose texts critically and independently.

**Course Outcome**

On the completion of the course the student-teachers will be able to:

**CO1.** Classify various literary features of prose in a given literature.

**CO2.** Demonstrate various styles of prose with wide range of famous works.

**CO3.** Recognize and appreciate the prose texts as a literary art form.

**Catalogue Description**

This course is a genre-based introduction to prose in English. Presenting important English language literary texts, the course explores a range of novels and short stories so as to illuminate the different forms and techniques found within these principal generic categories. The course also provides a short introduction to diverse literary and scholarly approaches to the study of texts.

**Course Content**

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**Unit I**

**15 Contact Hours**

**Types of Prose and Prose Styles**

- Autobiography

- Biography
- Memoire
- Travelogue (Definition with examples and famous works)

## Unit II

12 Contact Hours

### Kamala Das Works:

- My Story
- A doll for the child prostitute (Short story)

## Unit III

15 Contact

### Hours

### Essays

- Periodical
- Formal
- Familiar
- Poetic Prose
- Prose of Thought (Definition with examples and famous works)

## Unit IV

15 Contact Hours

- Bacon: Of Revenge
- Richard Steele: Recollections of Childhood

### Advanced Readings:

1. Abrams, M. H. & Harpham, G. G. (1999). *A Glossary of Literary Terms*. Mass: Thomson Wadsworth, Boston.
2. Bacon, Francis (1986). *The Essays*. Penguin Classics, London.
3. Blaisdell, Bob (2005). *Great English Essays: From Bacon to Chesterton*. Dover Thrift Editions.
4. Boulton, Marjorie (2006). *Anatomy of the Novel*. Kalyani Publishing, New Delhi.
5. Das, Kamla (2009). *My Story*. Harper Collins.
6. Forster, E. M. (1964). *Aspects of the novel*. Harmondsworth: Penguin Books

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>

3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Classify various literary features of prose in a given literature.	PO3
CO2	Demonstrate various styles of prose with wide range of famous works.	PO2
CO3	Recognize and appreciate the prose texts as a literary art form.	PO4

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Demand	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3

SEED35 5A	Engli sh III		3	3	3							2		
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1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1			3									3		
C O 2		3												
C O 3				3										
1=lightly mapped			2= moderately mapped						3=strongly mapped					

Unit I	Types of Prose and Prose Styles
Local	
Regional	
National	
Global	
Employability	Autobiography Biography Memoire Travelogue (Definition with examples and famous works)
Entrepreneurship	Autobiography Biography Memoire Travelogue (Definition with examples and famous works)
Skill Development	Autobiography Biography Memoire

	Travelogue (Definition with examples and famous works)
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Kamala Das Works</b>
Local	
Regional	
National	
Global	
Employability	My Story A doll for the child prostitute (Short story)
Entrepreneurship	My Story A doll for the child prostitute (Short story)
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Essays</b>
Local	
Regional	
National	
Global	
Employability	Periodical Formal Familiar Poetic Prose Prose of Thought (Definition with examples and famous works)
Entrepreneurship	
Skill Development	Periodical Formal

	Familiar Poetic Prose Prose of Thought (Definition with examples and famous works)
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	
Local	
Regional	
National	
Global	
Employability	Bacon: Of Revenge Richard Steele: Recollections of Childhood
Entrepreneurship	Bacon: Of Revenge Richard Steele: Recollections of Childhood
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	By 2030, ensure that all girls and boys complete free, equitable and quality primary, it will be ensured that students are able to understand the different texts. Likewise, they will be able to communicate their ideas effectively.
NEP 2020	India's languages are among the richest, most scientific, most beautiful, and most expressive in the world, with a huge body of ancient as well as modern literature (both prose and poetry), film, and music written in these languages that help form India's national identity and wealth (NEP 4.11)
POE/4 <sup>th</sup> IR	Cross-cultural Programme/ Hands - on Experience

<b>SEED357A</b>	<b>Hindi III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic Knowledge of Hindi Bhasha and Literature				
<b>Co-requisites</b>	--				

### Course Objectives

इस पाठ्यक्रम का उद्देश्य है,

- विद्यार्थियों को हिंदी गद्य साहित्य की कहानी विधा की कुछ प्रतिनिधि रचनाओं से और कहानी के महत्व के महत्व से अवगत कराना।
- हिंदी साहित्य के प्रमुख उपन्यासों के अध्ययन के साथ उपन्यास विधा का अध्ययन करना।
- हिंदी साहित्य में नाटक और निबंध का अध्ययन करना।
- गंदे की अन्य प्रचलित और महत्वपूर्ण विधाओं का विशेष अध्ययन करना।

### Course Outcomes

इस कोर्स के पूरा होने के परिणामतः छात्र निम्नलिखित ज्ञान प्राप्त कर पाएंगे:

CO1: प्रस्तुत पाठ्यक्रम के अध्ययन के पश्चात विद्यार्थी अपने शैक्षिक कैरियर में समुचित तरीके से हिंदी साहित्य विभिन्न प्रमुख विधाओं यथा कहानी विधा उपन्यास पर निबंध नाटक रिपोतार्ज दायरी संस्करण रेखाचित्र यात्रा वृतांत आदि से परिचित हो पाएंगे।

CO2: साहित्य का अध्ययन विद्यार्थियों को एक नैतिक और समुचित सामाजिक जीवन जीने को प्रेरित करता है। मनुष्य के सामाजिक जीवन को साथ साथ लेकर चलते हुए उसका मार्गदर्शन करना साहित्य अपना कलेवर है।

CO3: साहित्यिक ज्ञान प्राप्त करने के बाद विद्यार्थी को एक अलग उत्साह और ज्ञानलोक देखा जा सकता है, जिससे वो दूसरों को ज्ञानलोकित करने में भी आत्मिक आनंद का अनुभव करते हैं।

CO4: साहित्य अध्ययन के पश्चात् व्यक्ति की विचार शक्ति, सम्प्रेषण शैली और साथ ही साथ शिक्षण विधि परिष्कृत हो जाती है। वह जीवन को समझने में मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान बनता है।

### Catalog Description

हिंदी साहित्य में गद्य विधा का आविर्भाव आधुनिक काल का विशेष योगदान है। ऐसा नहीं है कि इसके पहले कभी गद्य विधा में रचना नहीं हुई, परंतु गद्य विधा का वास्तविक विकास आधुनिक युग में ही देखा जा सकता है। हालांकि हिंदी साहित्य में गद्य का आविर्भाव आधुनिक काल के पूर्व ही हो गया था तथापि हिंदी साहित्य के पितामह, बाबू भारतेन्दु हरिश्चंद्र (१८५० से १८८५) की कलम और इनके अथक परिश्रम के साथ, हिंदी साहित्य की गद्य विधाएं, पद्य विधा के साथ-साथ, नई गति, नए पंख, नई धारा में, नए कलेवर के साथ आगे बढ़ी। भारतेन्दु युग के आरंभ के साथ हिंदी साहित्य की गद्य विधा में महत्वपूर्ण विकास दर्शनीय है। हिंदी गद्य साहित्य में भारतेन्दु मंडल का योगदान लक्षण है। लगभग हर विधा का श्रीगणेश इस युग में हो चुका था।

पद्य की ही तरह गद्य विधा को भी विशेष उत्थान छायावाद के काल के साथ ही प्राप्त हुआ। हर गद्य विधा में अपने अपने युगों की स्थापना हुई यथा, प्रेमचंद के साथ कहानी और उपन्यास का, आचार्य रामचन्द्र शुक्ल जी के साथ निबंध का, प्रसाद के साथ नाटक का आदि।

### Course Content

#### Unit I:

17 Contact

#### Hours

#### हिंदी कहानी

- उसने कहा था : चंद्र शेखर शर्मा 'गुलेरी'



- ईदगाह : प्रेमचन्द्र
- ताई : विश्वम्भरनाथ शर्मा कौशिक
- तीसरी कसम : फणीश्वरनाथ रेणु
- पाजेब : जैनेन्द्र
- एक और जिंदगी : मोहन राकेश
- ब्रह्मराक्षस का शिष्य : मुक्तिबोध
- दूसरी दुनिया : निर्मल वर्मा
- गुलेल का खेल : भीष्म साहनी
- मकर संक्रांति : अशोक अग्रवाल
- हींगवाला : सुभद्रा कुमारी चौहान

**Unit II:**

**16 Contact**

**Hours**

**हिंदी उपन्यास**

- गोदान : प्रेमचंद
- तमस : भीष्मसाहनी
- ऐ लड़की : कृष्णा सोबती
- शेखर एक जीवनी : अज्ञेय

**Unit III:**

**12 Contact**

**Hours**

**हिंदी नाटक एवं निबंध:**

- अंधेर नगरी : भारतेन्दु हरिश्चन्द्र
- भोर का तारा (एकांकी) जगदीश चंद्र माथुर
- लक्ष्मी का स्वागत (एकांकी) उपेंद्र नाथ अशक
- गेहू का गुलाब (निबंध): राम वृक्ष बेनीपुरी
- सदाचार का ताबीज (व्यंग निबंध) हरिशंकर परसाई

**Unit IV:**

**12 Contact**

**Hours**

**हिंदी गद्य की अन्य विधाएँ**

- मेरी तिब्बत यात्रा (यात्रा वृतांत) राहुल सांकृत्यायन
- भाई जगन्नाथ (संस्मरण) श्री राम शर्मा
- घीसा (रेखाचित्र) महादेवी वर्मा
- क्या लिखूं? पदुमलाल पुत्रालाल बक्शी

**Suggested Text Books**

हिंदी साहित्य का इतिहास - डॉ. नगेन्द्र, राजकमल प्रकाशन

**Advanced Readings:**

1. हिंदी साहित्य का इतिहास - आचार्य रामचंद्र शुक्ल, राजकमल प्रकाशन
2. गोदान - प्रेमचंद, राजकमल प्रकाशन, नई दिल्ली
3. तमस - भीष्मसाहनी, राजकमल प्रकाशन, नई दिल्ली
4. ऐ लड़की : कृष्णा सोबती, राजकमल प्रकाशन, नई दिल्ली
5. शेखर एक जीवनी : अज्ञेय, राजकमल प्रकाशन, नई दिल्ली
6. मेरी तिब्बत यात्रा (यात्रा वृतांत) राहुल, राजकमल प्रकाशन, नई दिल्ली
7. भाई जगन्नाथ (संस्मरण) श्री राम शर्मा, राजकमल प्रकाशन, नई दिल्ली

Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attainment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
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8. घीसा (रेखाचित्र) महादेवी वर्मा, राजकमल प्रकाशन, नई दिल्ली
9. क्या लिखूं? पदुमलाल पुत्रालाल बक्शी, राजकमल प्रकाशन, नई दिल्ली
10. अंधेर नगरी : भारतेन्दु हरिश्चन्द्र, राजकमल प्रकाशन, नई दिल्ली
11. भोर का तारा (एकांकी) जगदीश चंद्र माथुर, राजकमल प्रकाशन, नई दिल्ली
12. लक्ष्मी का स्वागत (एकांकी) उपेंद्र नाथ अशक, राजकमल प्रकाशन, नई दिल्ली
13. गेहू का गुलाब (निबंध): राम वृक्ष बेनीपुरी, राजकमल प्रकाशन, नई दिल्ली
14. सदाचार का ताबीज (व्यंग निबंध) हरिशंकर परसाई, राजकमल प्रकाशन, नई दिल्ली
15. संबंधित कहानियां निबंध एवं नाटक

**Modes of Evaluation:** Quiz/Assignment/ presentation/ extempore/ Written Examination/Attendance

**Examination Scheme:**

Components	Attendance	Mid Term Exam	Presentation/ Assignment/	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and Pos		Mapped Programme Outcomes
	Course Outcomes (COs)	
CO1	प्रस्तुत पाठ्यक्रम के अध्ययन के पश्चात विद्यार्थी अपने शैक्षिक कैरियर में समुचित तरीके से हिंदी साहित्य विभिन्न प्रमुख विधाओं यथा कहानी विधा उपन्यास पर निबंध नाटक रिपोतार्ज दायरी संस्करण रेखाचित्र यात्रा वृत्तांत आदि से परिचित हो पाएंगे।	PO9
CO2	साहित्य का अध्ययन विद्यार्थियों को एक नैतिक और समुचित सामाजिक जीवन जीने को प्रेरित करता है। मनुष्य के सामाजिक जीवन को साथ साथ लेकर चलते हुए उसका मार्गदर्शन करना साहित्य अपना कलेवर है।	PO6
CO3	साहित्यिक ज्ञान प्राप्त करने के बाद विद्यार्थी को एक अलग उत्साह और ज्ञानलोक देखा जा सकता है, जिससे वो दूसरों को ज्ञानलोकित करने में भी आत्मिक आनंद का अनुभव करते हैं।	PO7
CO4	साहित्य अध्ययन के पश्चात् व्यक्ति की विचार शक्ति, सम्प्रेषण शैली और साथ ही साथ शिक्षण विधि परिष्कृत हो जाती है। वह जीवन को समझने में मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान बनता है।	PO10

Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PS O1	PS O2	PS O3
SEE D 357 A	Hindi III	3	2	3	3	3	3	2		2	2		2	3	2

1=lightly mapped,

2= moderately mapped,

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1									2			2		2
C O 2						3							3	
C O 3							2							
C O 4										2				
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	हिंदी कहानी
Local	ईदगाह : प्रेमचन्द्र
Regional	
National	तीसरी कसम : फणीश्वरनाथ 'रेणु'
Global	
Employability	
Entrepreneurship	समाज सेवा
Skill Development	संवेदनशीलता
Professional Ethics	सहयोग, समय प्रबंधन
Gender	
Human Values	नैतिक
Environment & Sustainability	
Unit II	हिंदी उपन्यास

Local	गोदान : प्रेमचंद
Regional	
National	ऐ लड़की : कृष्णा सोबती
Global	
Employability	कौशल विकास
Entrepreneurship	
Skill Development	सहयोग और टीम वर्क
Professional Ethics	
Gender	
Human Values	नैतिक और समुचित सामाजिक जीवन
Environment & Sustainability	
Unit III	हिंदी नाटक एवं निबंध:
Local	अंधेर नगरी : भारतेंदु हरिश्चन्द्र
Regional	लक्ष्मी का स्वागत (एकांकी ) उपेंद्र नाथ अशक
National	भोर का तारा (एकांकी) जगदीश चंद्र माथुर
Global	
Employability	करियर विकास
Entrepreneurship	स्व-रोजगार
Skill Development	संवेदनशीलता
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	हिंदी गद्य की अन्य विधाएँ
Local	मेरी तिब्बत यात्रा (यात्रा वृत्तांत ) राहुल सांकृत्यायन
Regional	भाई जगन्नाथ (संस्मरण ) श्री राम शर्मा
National	क्या लिखूँ ? पदुमलाल पुत्रालाल बक्शी
Global	
Employability	स्व-रोजगार
Entrepreneurship	
Skill Development	
Professional Ethics	सम्प्रेषण शैली
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)

POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability
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<b>SEED359A</b>	<b>Chinese-III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	--				
<b>Co-requisites</b>	--				

**Course Objectives:**

The student-teachers will be able to:

- To introduce basic spoken Chinese about self, school, family and profession.
- To write characters and simple sentences.
- To listen and discriminate between the sounds and sentences.

**Course Outcomes:**

On the completion of this course the student-teachers will be able to:

**CO1:** Reading of Chinese texts with accurate sounds

**CO2:** Writing of new Chinese Characters

**CO3:** Learn the basic conversation and texts.

**Course Overview**

This course is designed to provide students with foundational skills in spoken and written Chinese, as well as the ability to comprehend spoken language. Through a structured curriculum, students will develop proficiency in basic spoken communication, character writing, sentence construction, listening comprehension, and cultural awareness.

**Course Content**

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**Unit I:**

**15 Contact Hours**

**To introduce basic spoken Chinese about self, school, family and profession**Types of Matrices

- Knowledge of self-expression through a foreign language
- Hospitality Industry
- Self-Introductory ability through foreign language

**Unit II:**

**15 Contact Hours**

**To write grammatically correct simple sentences in Chinese**

- Translation Assignments and projects
- Character writing skills and Chinese content producing ability
- Gender awareness through characters and script
- Translation Assignments and projects

- Character writing skills and Chinese content producing ability

**Unit III:**

**10 Contact Hours**

**To listen and discriminate between the sounds and sentences**

- Knowledge of sound distinction between different family of foreign languages
- Interpretation Assignments

**Unit IV:**

**12 Contact Hours**

**Produce Content in Chinese related to Chinese language and Culture**

- Knowledge of the linguistic system of a foreign language and social and cultural background.
- Interpretation and Translation Assignments
- Ability to perceive China as a country through linguistic knowledge and produce content related to China in Chinese
- Gender awareness through Chinese texts
- Instillation of moral and value system through texts

**Suggested Readings**

- "Integrated Chinese: Level 1, Part 1 (Simplified Characters)" by Yuehua Liu, Tao-Chung Yao, Nyan-Ping Bi, Liangyan Ge, Yaohua Shi
- "Chinese for Beginners: Mastering Conversational Chinese" by Yi Ren
- "Reading and Writing Chinese: Third Edition, HSK All Levels" by William McNaughton and Li Ying
- "The Routledge Course in Chinese Media Literacy" by Xiaosu Zhang
- "Chinese Language and Culture: Level 1" by Hong Zhang

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Reading of Chinese texts with accurate sounds	PO1
CO2	Writing of new Chinese Characters	PO9

<b>CO3</b>	Learn the basic conversation and texts.	<b>PO2</b>
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		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PS O1	PS O2	PS O3
SEE D 359 A	Chinese- III		3	3	3		2							3	2

Programme and Course Mapping																
CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O 1	PS O 2	PS O 3	
CO 1		3				2									3	
CO 2			3										2			
CO 3				3												
CO 4																
1=lightly mapped                      2= moderately mapped                      3=strongly mapped																

<b>Unit I</b>	<b>To introduce basic spoken Chinese about self, school, family and profession</b>
Local	
Regional	



National	
Global	Knowledge of self-expression through a foreign language
Employability	Hospitality Industry
Entrepreneurship	
Skill Development	Knowledge of self-expression through a foreign language
Professional Ethics	
Gender	Awareness of gender roles in other cultures
Human Values	Family values of other cultures
Environment & Sustainability	Knowledge of self-expression through a foreign language
<b>Unit II</b>	<b>To write grammatically correct simple sentences in Chinese</b>
Local	
Regional	
National	
Global	Translation Assignments and projects
Employability	
Entrepreneurship	Character writing skills and Chinese content producing ability
Skill Development	
Professional Ethics	Gender awareness through characters and script
Gender	Translation Assignments and projects
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>To listen and discriminate between the sounds and sentences.</b>
Local	
Regional	
National	
Global	Knowledge of sound distinction between different family of foreign languages
Employability	Interpretation Assignments
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Produce Content in Chinese related to Chinese language and Culture</b>
Local	

Regional	
National	
Global	Knowledge of the linguistic system of a foreign language and social and cultural background.
Employability	Interpretation and Translation Assignments
Entrepreneurship	
Skill Development	Ability to perceive China as a country through linguistic knowledge and produce content related to China in Chinese
Professional Ethics	
Gender	Gender awareness through Chinese texts
Human Values	Instillation of moral and value system through texts
Environment & Sustainability	
SDG	4,5, 8, 17
NEP 2020	
POE/4 <sup>th</sup> IR	

<b>SEED361A</b>	<b>MATHEMATICS III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	--				
<b>Co-requisites</b>	--				

### Course Objectives:

The student-teachers will be able to:

- Use matrices as tool in different discipline.
- Understand determinants and its properties.
- Learn elementary concepts of continuity, differentiability.
- Learn applications of differential equations in different areas.

### Course Outcomes:

On the completion of this course the student-teachers will be able to:

**CO1.** Familiar with Determinant and Matrices

**CO 2** Identify an ordinary differential equation and classify it by order or linearity

**CO 3** Learn elementary concepts of continuity, differentiability and relations between them

**CO 4** Learn some basic concepts related to differential equation.

**CO 5** To investigate the structure of real-world problems and plan solution strategies.

### Catalog Description

Matrices are one of the most powerful tools in mathematics. This mathematical tool is not only used in certain branches of sciences, but also in genetics, economics, sociology, modern psychology and industrial management. In this course, it will be interesting to become acquainted with matrix algebra, determinants and various properties such as minors and cofactors. Students shall also learn elementary concepts of continuity, differentiability and relations between them. Moreover, the students shall study some basic concepts related to differential equation.

### Course Content

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#### Unit I:

**15 Contact Hours**

#### Matrices

- Types of Matrices

- Operations on Matrices
- Symmetric and Skew Symmetric Matrices
- Elementary Operation (Transformation) of a Matrix
- Invertible Matrices

**Unit II:**

**15 Contact Hours**

**Determinants**

- Properties of Determinants
- Area of a Triangle
- Minors and Cofactors
- Ad joint and Inverse of a Matrix
- Applications of Determinants and Matrices

**Unit III:**

**10 Contact Hours**

**Continuity and Differentiability**

- Continuity
- Differentiability
- Exponential and Logarithmic Functions
- Logarithmic Differentiation
- Derivatives of Functions in Parametric Forms
- Second Order Derivative
- Mean Value Theorem

**Unit IV:**

**12 Contact Hours**

**Differential Equations**

- Introduction and Basic Concepts
- General and Particular Solutions of a Differential Equation
- Formation of a Differential Equation whose General Solution is given
- Methods of Solving First Order, First Degree Differential Equations

**Advanced Readings**

1. Andreescu (2014). Essential Linear Algebra with Applications: A Problem-Solving Approach, Birkhäuser; Softcover reprint of the original 1st Edition.
2. Bronson, Richard (2011). Schaum's Outline of Matrix Operations (Schaum's Outlines), McGraw-Hill Education, 2nd Edition.
3. Bronson, Richard (2014). Schaum's Outline of Differential Equations, Schaum's Outlines, McGraw-Hill Education, 4th Edition.
4. Friedland, Shmuel (2015). Matrices: Algebra, Analysis and Applications, World Scientific Publishing Co Pte Ltd.
5. Narayan, Shanti, Differential Calculus, S. Chand and Co.: New Delhi.
6. Raisinghania, M. D. (2017). Ordinary Differential Equations, S. Chand & Co Ltd.

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Familiar with Determinant and Matrices	PO11
CO2	Identify an ordinary differential equation and classify it by order or linearity	PO10
CO3	Learn elementary concepts of continuity, differentiability and relations between them	PO3
CO4	Learn some basic concepts related to differential equation.	PO5
CO5	To investigate the structure of real-world problems and plan solution strategies	PO10

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 361A	Mathematics III			3		3		2	2		3				

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1									2			2		2
C O 2						3							3	
C O 3							2							
C O 4										2				
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Matrices
Local	Types of Matrices Operations on Matrices Symmetric and Skew Symmetric Matrices

	Elementary Operation (Transformation) of a Matrix Invertible Matrices
Regional	Types of Matrices Operations on Matrices Symmetric and Skew Symmetric Matrices Elementary Operation (Transformation) of a Matrix Invertible Matrices
National	Types of Matrices Operations on Matrices Symmetric and Skew Symmetric Matrices Elementary Operation (Transformation) of a Matrix Invertible Matrices
Global	Operations on Matrices Symmetric and Skew Symmetric Matrices Elementary Operation (Transformation) of a Matrix
Employability	
Entrepreneurship	
Skill Development	Operations on Matrices
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Determinants</b>
Local	Properties of Determinants Area of a Triangle Minors and Cofactors Ad joint and Inverse of a Matrix Applications of Determinants and Matrices
Regional	Properties of Determinants Area of a Triangle Minors and Cofactors Ad joint and Inverse of a Matrix Applications of Determinants and Matrices
National	Properties of Determinants Area of a Triangle Minors and Cofactors Ad joint and Inverse of a Matrix Applications of Determinants and Matrices
Global	Applications of Determinants and Matrices
Employability	Properties of Determinants
Entrepreneurship	
Skill Development	Applications of Determinants and Matrices
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	

<b>Unit III</b>	<b>Continuity and Differentiability</b>
Local	Continuity Differentiability Exponential and Logarithmic Functions Logarithmic Differentiation Derivatives of Functions in Parametric Forms Second Order Derivative Mean Value Theorem
Regional	Continuity Differentiability Exponential and Logarithmic Functions Logarithmic Differentiation Derivatives of Functions in Parametric Forms
National	Continuity Differentiability Exponential and Logarithmic Functions Logarithmic Differentiation Derivatives of Functions in Parametric Forms
Global	Derivatives of Functions in Parametric Forms
Employability	
Entrepreneurship	
Skill Development	Derivatives of Functions in Parametric Forms
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Differential Equations</b>
Local	Introduction and Basic Concepts General and Particular Solutions of a Differential Equation Formation of a Differential Equation whose General Solution is given Methods of Solving First Order, First Degree Differential Equations
Regional	Formation of a Differential Equation whose General Solution is given Methods of Solving First Order, First Degree Differential Equations
National	General and Particular Solutions of a Differential Equation Formation of a Differential Equation whose General Solution is given Methods of Solving First Order, First Degree Differential Equations
Global	Formation of a Differential Equation whose General Solution is given Methods of Solving First Order, First Degree Differential Equations
Employability	Methods of Solving First Order, First Degree Differential Equations
Entrepreneurship	
Skill Development	Formation of a Differential Equation whose General Solution is given
Professional Ethics	



Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11. Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED363A</b>	<b>Physics III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding Physics and its concepts				
<b>Co-requisites</b>	--				

### Course Overview

Physics is the branch of science concerned with the properties of matter and energy and the relationships between them. It is based on mathematics and traditionally includes mechanics, optics, electricity and magnetism, acoustics, and heat. Physics is an experimental science and the scientific method emphasizes the need of accurate measurement of various measurable features of different phenomena or of manmade objects. The study of Physics III involves the study of basic concepts in Crystal Structure, Basics of Electronics, Transistors and Thermodynamics.

### Course Objectives

The course will enable the student-teachers to –

- Acquaint the students with the basics of crystallography and laws depicting the crystal structure.
- Introduce the fundamental concepts of electronics, simple electronic devices and their working.
- Explain the basic laws and applications of thermal physics

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Develop an understanding of crystal structures, including Bravais lattice and Miller indices.

**CO2** Acquire knowledge about semiconductors, including the different types.

**CO3** Analyze the characteristic curves of transistors and comprehend the functioning of logic gates.

**CO4** Introduce the fundamental concepts of thermodynamics, including temperature, heat, system, state, equilibrium, and process.

**CO5** Explore the applications of the first law, heat engines, Carnot cycles, heat pumps, the second law of thermodynamics, entropy, and the third law of thermodynamics.

### **Unit I: Crystal Structure**

**12 Contact Hours**

- Bravais lattice,
- Miller indices,
- Inter-planar spacing,
- Chemical bonding in solids,
- X-ray diffraction,
- Bragg's law,
- Determination of crystal structure: powder method and rotating crystal method,
- Defects in crystal.

### **Unit II: Basics of Electronics**

**15 Contact Hours**

- Semiconductors,
- Types of semi-conductors (qualitative),
- P-N junction diode,
- Energy band diagram,
- Biasing,
- I-V characteristics,
- Regulated power supply,
- Zener diode,
- Light Emitting Diode (LED),
- Varactor diode, solar cell.

### **Unit III: Transistors**

**15 Contact Hours**

- Bipolar Junction Transistor (BJT),
- Configurations (CB, CE and CC),
- Characteristic curves of transistor,
- Logic gates,
- DeMorgan's theorem,
- AND, OR, NAND, NOR, XOR, XNOR.

### **Unit IV: Thermodynamics**

**10 Contact Hours**

- Introduction,
- Concept of temperature, heat.
- Thermodynamics- system, state, equilibrium, process.
- Reversible and Irreversible processes.
- Work, Internal energy.
- First law of Thermodynamics,
- Applications of first law.
- Heat Engine, Carnot cycle.
- Heat Pump, Second law of thermodynamics, Entropy, Third law of thermodynamics.

### Practicum

1. To measure the unknown resistance of wire using Ohm's law.
2. To study the V-I characteristics of P-N junction diode.
3. Study of transistor characteristics (CB, CE, CC configurations).
4. To verify experimentally OR, NAND, NOT, NOR, NAND gates.

### Suggested Readings

- Avadhanulu, M.N. and Kshirsagar, P.G. A Textbook of Engineering Physics, S. Chand.
- Mehta, V. K. Principles of Electronics, S. Chand.
- Pillai, S.O. Solid State Physics, New Age International Limited.

### Advanced reading

Introduction to Solid State Physics" by Charles Kittel

Solid State Physics" by Ashcroft and Mermin

Electronic Devices and Circuit Theory" by Robert L. Boylestad and Louis Nashelsky

Electronic Devices and Circuits" by Theodore F. Bogart Jr., Jeffrey S. Beasley, and Guillermo Rico

### Online References

17. <https://swayam.gov.in>
18. <http://www.ncte.nic.in>
19. <http://egyankosh.ac.in>
20. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop an understanding of crystal structures, including Bravais lattice and Miller indices.	PO3
CO2	Acquire knowledge about semiconductors, including the different types	PO8
CO3	Analyze the characteristic curves of transistors and comprehend the functioning of logic gates.	PO10
CO4	Introduce the fundamental concepts of thermodynamics, including temperature, heat, system, state, equilibrium, and process.	PO9
CO5	Explore the applications of the first law, heat engines, Carnot cycles, heat pumps, and the second law of thermodynamics, entropy, and the third law of thermodynamics.	PO1

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
Physics III SEED363	3		3					2	3	2		3	2	3

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1			3										2	
C O 2								2						3
C O 3										2				
C O 4									3					
C O 5	3													
1=lightly mapped					2= moderately mapped					3=strongly mapped				

Unit I	Crystal Structure
Local	X-ray diffraction
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Bravais lattice,</li> <li>• Miller indices,</li> <li>• Inter-planar spacing,</li> <li>• Chemical bonding in solids,</li> <li>• X-ray diffraction,</li> <li>• Bragg`s law,</li> <li>• Determination of crystal structure: powder method and rotating crystal method,</li> <li>• Defects in crystal.</li> </ul>
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	

Unit II	<b>Atomic Structure</b>
Local	Light Emitting Diode (LED), Varactor diode, solar cell.
Regional	Regulated power supply
National	
Global	Semiconductors
Employability	Semiconductors, Types of semi-conductors (qualitative), P-N junction diode, Energy band diagram, Biasing, I-V characteristics, Regulated power supply, Zener diode, Light Emitting Diode (LED), Varactor diode, solar cell.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Light Emitting Diode (LED), Varactor diode, solar cell.
Unit III	<b>Transistors</b>
Local	Configurations (CB,CE and CC)  AND, OR, NAND, NOR, XOR, XNOR
Regional	
National	
Global	

Employability	Bipolar Junction Transistor (BJT), Configurations (CB,CE and CC), Characteristic curves of transistor, Logic gates, DeMorgan`s theorem, AND, OR, NAND, NOR, XOR, XNOR.
Entrepreneurship	
Skill Development	Logic gates, DeMorgan`s theorem, AND, OR, NAND, NOR, XOR, XNOR
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Magnetostatics and Electrodynamics</b>
Local	Concept of temperature, heat, Heat Engine, Carnot cycle, Heat Pump
Regional	
National	
Global	
Employability	Introduction, Concept of temperature, heat. Thermodynamics- system, state, equilibrium, process. Reversible and Irreversible processes. Work, Internal energy. First law of Thermodynamics, Applications of first law. Heat Engine, Carnot cycle. Heat Pump, Second law of thermodynamics, Entropy, Third law of thermodynamics.
Entrepreneurship	

Skill Development	Second law of thermodynamics, Entropy, Third law of thermodynamics
Professional Ethics	
Gender	
Human Values	Work, Internal energy
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11. Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED 365A</b>	<b>Chemistry III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding of Chemistry				
<b>Co-requisites</b>	--				

### Course Overview

This course divided into four units Alcohols, Phenols and Monocarboxylic acids, Periodicity of Elements, The s-block and P-block elements and Solid, Liquid, Gases State. The course deals primarily with the basic principles to understand the structure and reactivity of organic molecules containing Alcohols, Phenols and Monocarboxylic acids. The purpose is to provide a general outline about the s and p block elements and define the position and arrangement of elements in the periodic table. This course provides knowledge to the student to learn and improve their skill and improve their information about the concept of real gases and ideal gases behaviour. Learn about preparation, physical properties and reaction of alcohol, phenol, carboxylic acid.

### Course Objectives

The course will enable the student-teachers to –

- Build a basic knowledge about the some important functional group such as Alcohols, phenols and carboxylic.



- Learn about s and p block elements and define the position and arrangement of elements in the periodic table.
- Enhance the knowledge about solid, liquid and gases state.
- Emphasise on the properties of s and p block elements along with the knowledge about generalized concept of Solid, Liquid, and Gaseous State.

### **Course outcomes**

On completion of this course, the student-teacher will be able to:

**CO1** Develop a comprehensive understanding of alcohols, phenols, and monocarboxylic acids.

**CO2** Develop a solid understanding of periodic trends and properties of elements

**CO3** Acquire knowledge of the production, uses, and chemical reactivity of metals in the s-block and p-block.

**CO4** Develop an understanding of the concepts related to the solid, liquid, and gaseous states.

### **Unit I: Alcohols, Phenols and Monocarboxylic Acids**

**12 Contact Hours**

- Alcohols: preparation, physical properties and reaction of alcohol.
- Phenols; Preparation, Cumene Hydroperoxide method, from dizonium salts, Reaction-Electrophilic Substitution, Nitration, halogenation & salphonation, Reimer-Tiemann Reaction, Monocarboxylic acids: Nomenclature, structure and bonding of carboxylic compounds; Physical properties and acidity of carboxylic acids; Reduction of carboxylic acids; Mechanism of decarboxylation.
- Dicarboxylic acids: Nomenclature, physical properties and methods of formation; Chemical properties: Reactions of -COOH group, effect of heat and dehydrating agents, reactions of oxalic.

### **Unit II: Periodicity of Elements**

**15 Contact Hours**

- Detailed discussion of the following properties of the elements, with reference to s & p-block.
- Effective nuclear charge, shielding or screening effect, Slater rules, variation of effective nuclear charge in periodic table.
- Atomic radii (Vander Waals)
- Ionic and crystal radii.
- Covalent radii (octahedral and tetrahedral)
- Ionization enthalpy, Successive ionization enthalpies and factors affecting ionization energy. Applications of ionization enthalpy.
- Electro negativity, Pauling's/ Mullikan's/ Electro negativity scales.

### Unit III: The S-block and P-block Elements

15

#### Contact Hours

- Production and uses of metals;
- Chemical reactivity and trends in alkali and alkaline earth metals;
- Structure and properties of oxides, halides and hydroxides;
- The p-block elements group III and IV: Structures of crystalline boron;
- Crystal structures of borides, boranes and carboranes; Metallocarboranes and their chemistry; Boron halides;
- Boric acid;
- Borates; Boron-nitrogen compounds;
- Chemical reactivity and group trends;
- Carbon: Allotropic forms, compounds;
- Graphite intercalation compounds;
- Carbides.

#### Unit IV: Solid, Liquid, Gases State

10 Contact Hours

- Unit cell,
- Lattice point (Def),
- Defects in crystals- Stoichiometric and Nonstoichiometric defects crystal system,
- Properties of solids,
- Types of solids,
- Liquid State:- Structural differences. Between solids liquid & Gases,
- Properties of liquid – Surface tension Viscosity,
- Vapour pressure,
- Liquid crystal & its classification in somatic & nematic type,
- Application of liquid crystal.
- Gaseous State:- Intermolecular attractive forces ,
- Deviation of real gases from ideal behavior.

#### Practicum

1. Determination of boiling point of liquid compounds. (Boiling point lower than and more than 100° C).

2. Benzoylation of one of the following compounds: amines (aniline, o-,m-,p-toluidines) and phenols ( $\beta$ naphthol, resorcinol) by Schotten- Baumann reaction
3. Nitration of one the following compounds: nitrobenzene, chlorobenzene, bromobenzene.
4. Determination of Fe (II) using  $\text{KMnO}_4$  with Oxalic Acid as Primary Acid Standard.
5. Determination of CU (II) using  $\text{Na}_2\text{S}_2\text{O}_3$  with  $\text{K}_2\text{Cr}_2\text{O}_7$  Acid as Primary Standard

### Suggested Readings

- Bahl, A. and Bahl, B. S. Advanced Organic Chemistry, S. Chand and Co. Ltd., New Delhi.
- Bahl, Arun, Essentials of Physical Chemistry, S. Chand Publishing.
- Finar, I. L. Organic Chemistry (Volume 1), Dorling Kindersley (India) Pvt. Ltd., Pearson Education.
- Morrison, R. N. and Boyd, R. N. Organic Chemistry, Dorling Kindersley (India) Pvt. Ltd., Pearson Education.
- Pandey, O. P., Bajpai, D. N. and Giri, S. Practical Chemistry for B.Sc. I, II and III Students of All Indian Universities.
- Puri, B. R., Sharma, L. R. and Kalia, K. C., Principles of Inorganic Chemistry, Shobhan Lal Nagin Chand & Co., New Delhi.
- Puri, B. R., Sharma, L. R. and Pathania, M. S. Principles of Physical Chemistry, Vishal Publishing Company.
- Vogel, A. I. A Textbook of Quantitative Inorganic Analysis, ELBS.

### Advanced Readings

- **Advanced Organic Chemistry: Part A: Structure and Mechanisms'' by Francis A. Carey and Richard J. Sundberg**
- **Inorganic Chemistry'' by Gary L. Miessler, Paul J. Fischer, and Donald A. Tarr**

### Online References

21. <https://swayam.gov.in>
22. <http://www.ncte.nic.in>
23. <http://egyankosh.ac.in>
24. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop a comprehensive understanding of alcohols, phenols, and monocarboxylic acids.	PO3
CO2	Develop a solid understanding of periodic trends and properties of elements	PO5
CO3	Acquire knowledge of the production, uses, and chemical reactivity of metals in the s-block and p-block.	PSO3
CO4	Develop an understanding of the concepts related to the solid, liquid, and gaseous states.	PO10

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Chemistry III SEED365 A			3		2					3				2

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1			3										2	
C O 2	3													3
C O 3							3							
C O 4									3		3			
C O 5														
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Alcohols, Phenols and Monocarboxylic Acids
Local	
Regional	
National	
Global	
Employability	Dicarboxylic acids: Nomenclature, physical properties and methods of formation; Chemical properties: Reactions of -COOH group, effect of heat and dehydrating agents, reactions of oxalic.
Entrepreneurship	
Skill Development	Electrophilic Substitution, Nitration, halogenation & salphonation, Reimer-Tiemann Reaction, Monocarboxylic acids: Nomenclature, structure and bonding of carboxylic compounds; Physical properties and acidity of carboxylic acids; Reduction of carboxylic acids; Mechanism of decarboxylation.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	Periodicity of Elements
Local	
Regional	

National	
Global	
Employability	Phenols; Preparation, Cumene Hydroperoxide method, from dizonium salts, Reaction-Electrophilic Substitution, Nitration, halogenation & salphonation, Reimer-Tiemann Reaction, Monocarboxylic acids: Nomenclature, structure and bonding of carboxylic compounds; Physical properties and acidity of carboxylic acids; Reduction of carboxylic acids; Mechanism of decarboxylation.
Entrepreneurship	
Skill Development	Dicarboxylic acids: Nomenclature, physical properties and methods of formation; Chemical properties: Reactions of -COOH group, effect of heat and dehydrating agents, reactions of oxalic.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>The S-block and P-block Elements</b>
Local	
Regional	
National	
Global	
Employability	Borates; Boron-nitrogen compounds; Chemical reactivity and group trends; Carbon: Allotropic forms, compounds; Graphite intercalation compounds; Carbides.
Entrepreneurship	
Skill Development	Structure and properties of oxides, halides and hydroxides; The p-block elements group III and IV: Structures of crystalline boron; Crystal structures of borides, boranes and carboranes; Metallocarboranes and their chemistry; Boron halides; Boric Acid
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Solid, Liquid, Gases State</b>
Local	
Regional	
National	
Global	
Employability	Properties of liquid – Surface tension Viscosity, Vapour pressure, Liquid crystal & its classification in somatic & nematic type, Application of liquid crystal. Gaseous State:- Intermolecular attractive forces ,

	Deviation of real gases from ideal behavior.
Entrepreneurship	
Skill Development	Unit cell, Lattice point (Def), Defects in crystals- Stoichiometric and Nonstoichiometric defects crystal system, Properties of solids, Types of solids, Liquid State:- Structural differences. Between solids liquid & Gases
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature (12.8). Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all (9.1), achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil to minimize their adverse impacts on human health and the environment (12.4)
NEP 2020	Infectious disease management and development of vaccines and the resultant social issues heightens the need for multidisciplinary learning. (Pg 4), Towards a More Holistic and Multidisciplinary Education, (11.2) increased creativity and innovation, critical thinking and higher order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Integrating updated curriculum and practical courses inspired by the 4th Industrial Revolution to impart industry-relevant technical skills, aligning with the evolving needs of chemical industries for enhanced employability and skill development."

<b>SEED367A</b>	<b>BIOLOGY III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	--				
<b>Co-requisites</b>	--				

## Course Objectives

The student-teachers will be able

- To understand the structural and functional organization of plants and animals and apply into real life situations.
- To study the physiological mechanisms like respiration, digestion and reproduction in plants and animals.
- To study the genetic basis of life and its role in inheritance and structural organization.
- To study different modes of reproduction and the different phases of development of plant and animal life.
- To critically analyze the content of biology for elementary school students.

## Course Outcomes

On completion of this course the student-teachers will be able to:

CO1 Understand the structural and functional organization of animals and plants.

CO2 Apply the knowledge of inheritance of genes and its role in heredity and inducing variations.

CO3 Understand the mechanism of reproduction in plants and animals and apply the knowledge while teaching students at elementary level.

CO4 Apply the measures to maintain reproductive health and sensitize their students towards it.

## Catalog Description

Biology III provides an overview of the structural and functional organization of plants and animals at cellular level. It covers cell biology techniques involving complex equipment for the molecular study of cell and its component. It gives a clear and succinct idea of the genetic basic of life and the inheritance of the traits. Developmental



biology includes the reproductive phases of life and its development. In the end this course connects the environmental sciences with the life of plants and animals and focusses on the interference of pollution on the life on earth.

## Course Content

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### Unit I:

**10 Contact Hours**

#### Structure and Function

- Plants: Types of tissues (xylem, phloem, stomata) in relation to processes - transpiration, ascent of sap, photosynthesis (ATP generation), cellular respiration, growth and development.
- Animals: Study of digestion, respiration, circulation, excretion, transmission of nerve impulse, hormonal regulation.

### Unit II:

**15 Contact Hours**

#### Cell Biology and Genetics

- Interaction of genes: epistasis, co-dominance, polygenic inheritance, multiple alleles. Linkage, crossing over and genetic maps.
- Techniques in Cell Biology: microscopy, fractionation, tissue culture and somatic cell hybridization, DNA technology.
- Nucleus and Nucleic acids: structure of chromosomes-prokaryotes and eukaryotes DNA replication, protein synthesis, genetic control, gene mutation and chromosomal aberrations.
- Heredity and variation: Mendelian Inheritance; Deviations from Mendelism– Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotropy; Elementary idea of polygenic inheritance; Chromosome theory of inheritance; Chromosomes and genes; Sex determination– In humans, birds, honey bee; Linkage and crossing over; Sex linked inheritance- Haemophilia, Colour blindness; Mendelian disorders in humans– Thalassaemia; Chromosomal disorders in humans; Down's syndrome, Turner's and Klinefelter's syndromes.

- Molecular Basis of Inheritance: Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; Transcription, genetic code, translation; Gene expression and regulation– Lac Operon; Genome and human genome project; DNA finger printing.

### **Unit III:**

**15 Contact Hours**

### **Developmental Biology**

- Reproduction in organisms: Reproduction, a characteristic feature of all organisms for continuation of species; Modes of reproduction – Asexual and sexual; Asexual reproduction; Modes- Binary fission, sporulation, budding, gemmule, fragmentation; vegetative propagation in plants.
- Sexual reproduction in flowering plants: Flower structure; Development of male and female gametophytes; Pollination–types, agencies and examples; Outbreedings devices; Pollen-Pistil interaction; Double fertilization; Post fertilization events– Development of endosperm and embryo, Development of seed and formation of fruit; Special modes– apomixis, parthenocarpy, polyembryony; Significance of seed and fruit formation.
- Human Reproduction: Male and female reproductive systems; Microscopic anatomy of testis and ovary; Gametogenesis- spermatogenesis & oogenesis; Menstrual cycle; Fertilisation, embryo development up to blastocyst formation, implantation; Pregnancy and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary idea).
- Reproductive health: Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control- Need and Methods, Contraception and Medical Termination of Pregnancy (MTP); Amniocentesis; Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT (Elementary idea for general awareness).

### **Practicum**

1. Working out dihybrid ratios with seeds.
2. Epistasis.
3. Experiment on transpiration.
4. Oxygen evolution in photosynthesis.
5. Anaerobic - germinate seeds (Hg level).

6. Grow seeds and measure and record growth pattern.
7. Effect of IAA on decapitated plant.
8. Effect of salt concentrations on PBC.
9. Qualitative estimations of proteins, carbohydrates (sugars & starch) and fats.
10. Abnormal constituents of urine.
11. Chick embryology : 18 hrs., 24 hrs., 33 hrs., 72 hrs.,
12. Slides of frog blastula, gastrula, Neurula stages.
13. Study of a quadrat (Ecology).
14. Water analysis.

### **Suggested Text Books**

1. NCERT Class XI Textbook, NCERT, New Delhi.
2. NCERT Class XII Textbook, NCERT, New Delhi.
3. Tyagi, M.P. and Bhatia, K.N. (2018). Trueman's Elementary Biology for Class XII. Vol. 1. Danika Publishing Company.
4. Tyagi, M.P. and Bhatia, K.N. (2018). Trueman's Elementary Biology for Class XII. Vol. 2. Danika Publishing Company.

### **Advanced Readings**

1. Beri, A.K. (1981). Textbook of Animal Physiology. EMK Pub.: North Suite, 313 Ponte.
2. Burns, S. (1980). Science of Genetics: An Introduction to Heredity, McMillan: New York, 4<sup>th</sup> Edition.
3. Devlin, R.M. and Witham, F.H. Plant Physiology, CBS Publishers and Distributors: Shahadara.

**Modes of Evaluation: Student's performance based on continuous evaluation**

### **Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the structural and functional organization of animals and plants.	PO1
CO2	Apply the knowledge of inheritance of genes and its role in heredity and inducing variations.	PO3
CO3	Understand the mechanism of reproduction in plants and animals and apply the knowledge while teaching students at elementary level.	PO3
CO4	Apply the measures to maintain reproductive health and sensitize their students towards it.	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 367A	Biology III	2		3								3	2		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3													
C O 2			3											
C O 3			3											
C O 4			3											
1=lightly mapped					2= moderately mapped					3=strongly mapped				

Unit I	<b>Cell Biology and Genetics</b>
Local	
Regional	
National	
Global	Plants: Types of tissues (xylem, pholem, stomata) in relation to processes - transpiration, ascent of sap, photosynthesis (ATP generation), cellular respiration, growth and development.
Employability	Animals: Study of digestion, respiration, circulation, excretion, transmission of nerve impulse, hormonal regulation.
Entrepreneurship	
Skill Development	Animals: Study of digestion, respiration, circulation, excretion, transmission of nerve impulse, hormonal regulation.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	<b>Cell Biology and Genetics</b>
Local	
Regional	

National	
Global	Nucleus and Nucleic acids: structure of chromosomes-prokaryotes and eukaryotes DNA replication, protein synthesis, genetic control, gene mutation and chromosomal aberrations.
Employability	Interaction of genes: epistasis, co-dominance, polygenic inheritance, multiple alleles. Linkage, crossing over and genetic maps. Techniques in Cell Biology: microscopy, fractionation, tissue culture and somatic cell hybridization, DNA technology.
Entrepreneurship	
Skill Development	Interaction of genes: epistasis, co-dominance, polygenic inheritance, multiple alleles. Linkage, crossing over and genetic maps. Techniques in Cell Biology: microscopy, fractionation, tissue culture and somatic cell hybridization, DNA technology. Heredity and variation: Mendelian Inheritance; Deviations from Mendelism– Incomplete dominance, Co-dominance, Multiple alleles and Inheritance of blood groups, Pleiotropy; Elementary idea of polygenic inheritance; Chromosome theory of inheritance; Chromosomes and genes; Linkage and crossing over; Sex linked inheritance- Haemophilia, Colour blindness; Mendelian disorders in humans– Thalassaemia; Chromosomal disorders in humans; Down’s syndrome, Turner’s and Klinefelter’s syndromes. Molecular Basis of Inheritance: Search for genetic material and DNA as genetic material; Structure of DNA and RNA; DNA packaging; DNA replication; Central dogma; Transcription, genetic code, translation; Gene expression and regulation– Lac Operon; Genome and human genome project; DNA finger printing.
Professional Ethics	
Gender	Sex determination– In humans, birds, honey bee;
Human Values	
Environment & Sustainability	
Unit III	<b>Developmental Biology</b>
Local	
Regional	
National	
Global	Reproduction in organisms: Reproduction, a characteristic feature of all organisms for continuation of species; Modes of reproduction – Asexual and sexual; Asexual reproduction; Modes- Binary fission, sporulation, budding, gemmule, fragmentation; Sexual reproduction in flowering plants: Flower structure; Development of male and female gametophytes; Pollination–types, agencies and examples; Outbreedings devices; Pollen-Pistil interaction; Double fertilization; Post fertilization events– Development of endosperm and embryo, Development of seed and formation of fruit; Special modes– apomixis, parthenocarpy, polyembryony; Significance of seed and fruit

	formation. Human Reproduction: Male and female reproductive systems; Microscopic anatomy of testis and ovary; Gametogenesis-spermatogenesis & oogenesis; Menstrual cycle; Fertilisation, embryo development up to blastocyst formation, implantation; Pregnancy and placenta formation (Elementary idea); Parturition (Elementary idea); Lactation (Elementary idea).
Employability	Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT (Elementary idea for general awareness).
Entrepreneurship	vegetative propagation in plants.
Skill Development	vegetative propagation in plants.
Professional Ethics	
Gender	Reproduction in organisms: Reproduction, a characteristic feature of all organisms for continuation of species; Human Reproduction: Male and female reproductive systems;
Human Values	Reproductive health: Need for reproductive health and prevention of sexually transmitted diseases (STD); Birth control- Need and Methods, Contraception and Medical Termination of Pregnancy (MTP); Amniocentesis;
Environment & Sustainability	
SDG	SDG 4 Quality education, ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs ,Skill Development and Employability

<b>SEED369A</b>	<b>HISTORY III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding of different empires that existed during the past.				
<b>Co-requisites</b>					

### Course Overview

The course attempts to make students aware about the social, political, religious and economic conditions of different empires that existed during the past. It aims to shift focus away from the large systems and trends and probes the connection between culture, identity and power. Through these issues, it looks at the history of colonialism, imperialism and modes of resistance.

### Course Objectives

The course will enable the student-teachers to –

- Trace the historical development of Mughal Empire.
- Study about the state policy of Rajputs.
- Study of rise of Maratha Power under Shivaji's rule.
- Study the causes of downfall of Mughal Empire.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Understand the conquests and policies of Babur and Akbar, and evaluate their impact on the formation and consolidation of the Mughal Empire.

**CO2** Analyze the political and military challenges faced by Jahangir and Shah Jahan, and assess their strategies for maintaining and expanding the Mughal Empire.

**CO3** Evaluate the religious policies and their consequences implemented by Aurangzeb, and assess their role in shaping the decline and disintegration of the Mughal Empire.

**CO4** Examine the rise of the Maratha Empire under Shivaji and analyze the factors contributing to its success and its interactions with the Mughal Empire.

### Unit I: The Era of Babur and Akbar

**15 Contact**

#### Hours

- Invasion, conquests, personality.
- Humayun - Struggle, exile, restoration.
- Shershah Suri - Civil, military and revenue administration achievements.



- Conquests, Rajput policy, religious policy
- Deccan policy, revolts, consolidation of empire
- Revenue administration, Mansabdari system, estimates of Akbar

## **Unit II: The Era of Jahangir and Shah Jahan**

**12 Contact**

### **Hours**

- Accession, twelve ordinances, revolts, influence of Noorjahan, Deccan policy, character of Nurjahan, Estimate of Jahangir
- Accession, early revolts, N.W.F. policy, Deccan policy, Central Asian policy, War of succession

## **Unit III: The Era of Aurangzeb**

**13 Contact**

### **Hours**

- Early career, military exploits, religious policy, Deccan policy, Rajput policy, Revolts and reaction, Causes of failure of Aurangzeb character and personality.
- Causes of downfall of Mughal Empire
- Invasion of Nadir Shah and Ahmad Shah Abdali

## **Unit IV: The Maratha Empire**

**12 Contact Hours**

- Rise of Maratha Power under Shivaji, relations with Mughals, Sambhaji, Rajaram
- Administration-Central, provincial, military, administration, revenue administration
- Law and justice
- Development of education and literature
- Architecture, painting

### **Advanced Readings**

1. Irfan Habib ( 1963). Agrarian System of Mughal India Bombay,
2. Alam, M. & S. Subrahmanyam. 2011. Writing the Mughal World: Studies on Culture and Poitics. New York: Columbia University Pres
3. Busch, Allison. 2011. Poetry of Kings: The Classical Hindi Literature of Mughal India. New York: Oxford University Press.

### **Suggested Readings**

- Chandra, Satish (2007). A History of Medieval India, Orient Black Swan. New Delhi.
- Dahiya, Poonam Dalal (2017). Ancient and Medieval India, McGraw Hill, Delhi.
- Mahajan, V. D. (1991). History of Medieval India, S. Chand Publication, New Delhi.

- Mehta, J. L. (2009). Advanced Study in the History of Medieval India, Vol. III: Medieval Indian Society and Culture. Repro Books, New Delhi

### Online References

1. <https://egyankosh.ac.in/bitstream/123456789/20222/1/Unit-5.pdf>
2. <https://egyankosh.ac.in/bitstream/123456789/20259/1/Unit-30.pdf>
3. <https://egyankosh.ac.in/bitstream/123456789/68910/3/Unit-6.pdf>
4. <https://egyankosh.ac.in/handle/123456789/20226>

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the conquests and policies of Babur and Akbar, and evaluate their impact on the formation and consolidation of the Mughal Empire.	PO9
CO2	Analyze the political and military challenges faced by Jahangir and Shah Jahan, and assess their strategies for maintaining and expanding the Mughal Empire.	PO1
CO3	Evaluate the religious policies and their consequences implemented by Aurangzeb, and assess their role in shaping the decline and disintegration of the Mughal Empire.	PO3
CO4	Examine the rise of the Maratha Empire under Shivaji and analyze the factors contributing to its success and its interactions with the Mughal Empire.	PO11

Teaching Competencies
Effective Communication
Critical Thinking
Ethics
Life-long Learning
Sensitive towards Inclusion
Self-Development and Community
Technology Skills
Professional Competencies
General and Specific Need & Problems
Pedagogical Content Analysis
Developmental tasks
Diverse Needs
Research and Entrepreneurial Skills

Course Title & Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
History III- SEED369 A	3		3						3		3	2	3	

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 1 0	P O 1 1	P S O 1	P S O 2	P S O 3
C O 1									3				2	
C O 2	3													3
C O 3			3											
C O 4										3				

1=lightly mapped                      2= moderately mapped                      3=strongly mapped

<b>Unit I</b>	<b>The Era of Babur and Akbar</b>
Local	
Regional	
National	
Global	
Employability	Shershah Suri - Civil, military and revenue administration achievements
Entrepreneurship	
Skill Development	Shershah Suri - Civil, military and revenue administration achievements
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>The Era of Jahangir and Shah Jahan</b>
Local	
Regional	Accession, early revolts, N.W.F. policy, Deccan policy, Central Asian policy, War of succession

National	Accession, twelve ordinances, revolts, influence of Noorjahan, Deccan policy, character of Nurjahan, Estimate of Jahangir
Global	
Employability	Architecture, painting
Entrepreneurship	
Skill Development	Architecture, painting
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>The Era of Aurangzeb</b>
Local	
Regional	
National	Religious policy, Deccan policy, Rajput policy, Revolts and reaction, Causes of failure of Aurangzeb character and personality
Global	
Employability	Early career, military exploits
Entrepreneurship	
Skill Development	Early career, military exploits
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>The Maratha Empire</b>
Local	
Regional	
National	Rise of Maratha Power under Shivaji, relations with Mughals, Sambhaji, Rajaram
Global	
Employability	
Entrepreneurship	
Skill Development	Administration-Central, provincial, military, administration, revenue administration
Professional Ethics	
Gender	
Human Values	Law and justice
Environment & Sustainability	
SDG	4, Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for All.
NEP 2020	
POE/4 <sup>th</sup> IR	

<b>SEED371A</b>	<b>Political Science III</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic concepts and theories in political science and political thought				
<b>Co-requisites</b>	--				

### Course Overview

The course deals with sources as well as features of the ancient Indian Political Thought based on different approaches. The course will provide an insight into the philosophies of social and political thinkers of the past and also about the thinkers and reformist of contemporary India.

### Course Objectives

The course will enable the student-teachers to –

- Study the sources and features of Ancient Indian Political Thought.
- Know about the contributions made by different scholars in the field of Economics and Politics
- Study the religious and social reforms undertaken by Rammohan Roy and Pandita Ramabai
- Know about the revolutionaries of India.
- Study about the rise of Nationalism and the contribution of eminent leaders in creating a fervour for nationalism.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Understand the sources and features of ancient Indian political thought, including Manu and Kautilya, and their significance in shaping the concept of the state in ancient India.

**CO2** Explore the contributions of Rammohan Roy and Pandita Ramabai in religious and social reform, with a focus on their perspectives on gender and their impact on Renaissance thought in India.

**CO3** Evaluate the ideas of Dadabai Naoroji, Ranade M G, Savarkar V D, and Mohammad Iqbal in shaping early nationalism in India, including their theories on drain theory, poverty, the role of the state, religious reform, and different forms of nationalism.

**CO4** Analyze the principles of democratic egalitarianism advocated by Gandhi, Nehru, Ambedkar, and M.N. Roy, focusing on concepts such as Swaraj, Satyagraha, democratic socialism, and the annihilation of the caste system.

**CO5** Critically assess the contributions of these thinkers to the development of Indian political thought, their relevance to contemporary socio-political issues, and their influence on the Indian nationalist movement and post-independence India.

### Unit I: Traditions of Ancient Indian Political Thought

**12 Contact Hours**

- Sources & Features of Ancient Indian Political Thought,
- Manu: Social Laws,
- Kautilya: Arthasastra,
- Theory of the state

### Unit II: Renaissance Thought

**10 Contact Hours**

- Rammohan Roy: Religious & Social reform

- Pandita Ramabai: Gender

### **Unit III: Early Nationalism**

**15 Contact Hours**

- Dadabai Naoroji: Drain Theory & Poverty
- Ranade M G: The role of the State & Religious Reform,
- Savarkar V D: Hindutva or Hindu Culture Nationalism,
- Mohammad Iqbal: Islamic Communitarian Nationalism

### **Unit IV: Democratic Egalitarianism**

**15 Contact Hours**

- Gandhi: Swaraj and Satyagraha
- Jawaharlal Nehru: Democratic Socialism
- Dr. Ambedkar B R: Annihilation of caste system
- M.N. Roy: Radical Humanism

### **Suggested Readings**

- Gauba, O. P. (2016). Indian Political Thought, Mayur Publications.
- Gauba, O. P. (2018). Social and Political Philosophy, Mayur Publication.

### **Advanced Readings**

- Chatterjee, S., & Sen, T. (Eds.). (2016). A History of Political Thought: Plato to Marx. Oxford University Press.
- Sabapathy, T. (Ed.). (2021). Indian Political Thought: A Reader. Oxford University Press.
- Ray, S., & Bhattacharya, S. (2019). A Textbook of Political Theory. Oxford University Press.
- Deshpande, S. (2013). Contemporary India: Economy, Society, and Politics. Cambridge University Press.
- Mathur, G. K., & Mathur, M. L. (2018). Indian Political Thought: Themes and Thinkers. Pearson Education India.

### **Online References**

25. <https://swayam.gov.in>
26. <http://www.ncte.nic.in>
27. <http://egyankosh.ac.in>
28. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the sources and features of ancient Indian political thought, including Manu and Kautilya, and their significance in shaping the concept of the state in ancient India	PO1
CO2	Explore the contributions of Rammohan Roy and Pandita Ramabai in religious and social reform, with a focus on their perspectives on gender and their impact on Renaissance thought in India.	PO4
CO3	Evaluate the ideas of Dadabai Naoroji, Ranade M G, Savarkar V D, and Mohammad Iqbal in shaping early nationalism in India, including their theories on drain theory, poverty, the role of the state, religious reform, and different forms of nationalism.	PO5
CO4	Analyze the principles of democratic egalitarianism advocated by Gandhi, Nehru, Ambedkar, and M.N. Roy, focusing on concepts such as Swaraj, Satyagraha, democratic socialism, and the annihilation of the caste system.	PO7
CO5	Critically assess the contributions of these thinkers to the development of Indian political thought, their relevance to contemporary socio-political issues, and their influence on the Indian nationalist movement and post-independence India.	PO3

Teaching Competencies
Effective Communication
Critical Thinking
Ethics
Life-long Learning
Sensitive towards Inclusion
Self-Development and Community Attachment
Technology Skills
Professional Competencies
General and Specific Need & Problems
Pedagogical Content Analysis
Developmental tasks
Diverse Needs
Research and Entrepreneurial Skills

Course Title & Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
Political Science III 371A	3		3	3	3							3	3	

1=lightly mapped      2= moderately mapped      3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3												3	
C O 2			3											3
C O 3					3									
C O 4							3							
C O 5											3			

1=lightly mapped      2= moderately mapped      3=strongly mapped

Unit I	Traditions of Ancient Indian Political Thought
Local	
Regional	
National	Sources & Features of Ancient Indian Political Thought, Manu: Social Laws, Kautilya: Arthashastra, Theory of the state
Global	
Employability	
Entrepreneurship	



Skill Development	
Professional Ethics	
Gender	Manu: Social Laws
Human Values	Sources & Features of Ancient Indian Political Thought, Manu: Social Laws, Kautilya: Arthashastra
Environment & Sustainability	
SDG	
NEP 2020	
POE/4th IR	
<b>Unit II</b>	<b>Renaissance Thought</b>
Local	
Regional	
National	Rammohan Roy: Religious & Social reform Pandita Ramabai: Gender
Global	
Employability	Rammohan Roy: Religious & Social reform Pandita Ramabai: Gender
Entrepreneurship	
Skill Development	Rammohan Roy: Religious & Social reform Pandita Ramabai: Gender
Professional Ethics	Rammohan Roy: Religious & Social reform Pandita Ramabai: Gender
Gender	Pandita Ramabai: Gender
Human Values	Rammohan Roy: Religious & Social reform Pandita Ramabai: Gender
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
<b>Unit III</b>	<b>Early Nationalism</b>
Local	
Regional	
National	Dadabai Naoroji: Drain Theory & Poverty Ranade M G: The role of the State & Religious Reform, Savarker V D: Hindutva or Hindu Culture Nationalism, Mohammad Iqbal: Islamic Communitarian Nationalism
Global	
Employability	Dadabai Naoroji: Drain Theory & Poverty Ranade M G: The role of the State & Religious Reform,

	Savarker V D: Hindutva or Hindu Culture Nationalism, Mohammad Iqbal: Islamic Communitarian Nationalism
Entrepreneurship	
Skill Development	Dadabai Naoroji: Drain Theory & Poverty Ranade M G: The role of the State & Religious Reform, Savarker V D: Hindutva or Hindu Culture Nationalism, Mohammad Iqbal: Islamic Communitarian Nationalism
Professional Ethics	Dadabai Naoroji: Drain Theory & Poverty Ranade M G: The role of the State & Religious Reform, Savarker V D: Hindutva or Hindu Culture Nationalism, Mohammad Iqbal: Islamic Communitarian Nationalism
Gender	
Human Values	Ranade M G: The role of the State & Religious Reform,
Environment & Sustainability	Dadabai Naoroji: Drain Theory & Poverty Ranade M G: The role of the State & Religious Reform, Savarker V D: Hindutva or Hindu Culture Nationalism, Mohammad Iqbal: Islamic Communitarian Nationalism
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
<b>Unit IV</b>	<b>Democratic Egalitarianism</b>
Local	
Regional	
National	Gandhi: Swaraj and Satyagraha Jawaharlal Nehru: Democratic Socialism Dr. Ambedkar B R: Annihilation of caste system M.N. Roy: Radical Humanism
Global	
Employability	Gandhi: Swaraj and Satyagraha Jawaharlal Nehru: Democratic Socialism Dr. Ambedkar B R: Annihilation of caste system M.N. Roy: Radical Humanism
Entrepreneurship	
Skill Development	Gandhi: Swaraj and Satyagraha Jawaharlal Nehru: Democratic Socialism Dr. Ambedkar B R: Annihilation of caste system M.N. Roy: Radical Humanism
Professional Ethics	Gandhi: Swaraj and Satyagraha Jawaharlal Nehru: Democratic Socialism Dr. Ambedkar B R: Annihilation of caste system M.N. Roy: Radical Humanism
Gender	

Human Values	Gandhi: Swaraj and Satyagraha Jawaharlal Nehru: Democratic Socialism Dr. Ambedkar B R: Annihilation of caste system M.N. Roy: Radical Humanism
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development

SEED373A	Geography III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of geography as a discipline and its relevance in studying human activities				
Co-requisites	--				

### Course Overview

Human geographers are concerned with the “who”, “what”, “where”, “why”, “when”, and “how” of humans their interrelationships and their relationship to the environment: The course focuses on the spatial aspects of population growth and distribution, cultural differentiation, urban growth and decline, the spread of ideas and innovations, regional development, and the location of economic activity, as well as problems associated with these processes. This introductory course will introduce students to several subfields of study, including population, urban, economic, cultural, and political geography, as well as fundamental geographic concepts. Human Geography is a broad dynamic domain that reflects the developments and conditions in the contemporary world. It is a field of inquiry and an academic discipline with its own traditions, objectives and approaches to the changing world. It involves an examination of the setting in which people live their lives as part of a continual process of struggle and transformation. The central concern of the course is the analysis of the relationship between society, place and space. It focuses on social, economic, political, cultural and human-environment processes and patterns and how they change over space and time. The course aims to engender a critical geographical perspective on the past, present and future development of the social world. This critical viewpoint is of crucial importance in the generation of a broad and informed understanding.

### Course Objectives

The course will enable the student-teachers to -

- Understand the nature and perspective of geography.
- Know about the population and cultural patterns and processes.
- Develop an understanding of Contemporary globalization and the interaction between people and their environment.

- Analyse the economic development, uneven development, urbanization and urban life.
- Teach the use of spatial concepts and landscape analysis to examine the human organization of space.
- Teach the use and interpretation of maps, spatial data sets and geographic models when analyzing human diversity.

### **Course Outcomes**

On completion of this course, the student-teacher will be able to:

**CO1.** Understand the nature and scope of Human Geography, including various approaches.

**CO2** Analyze population trends and patterns, including factors influencing population growth and distribution.

**CO3** Examine various human activities, and gain an understanding of quaternary and quinary activities and the concept of sustainable development in the context of planning in India.

**CO4** Develop practical skills in map interpretation and analysis, including understanding the elements and classification of maps, scales, map projections, finding directions, latitudes, longitudes, and calculating local and standard time.

**CO5** Apply knowledge through a practicum, where students engage in hands-on activities involving map analysis, relief form identification, weather interpretation, digital mapping, remote sensing, and visual interpretation.

### **Unit I**

**12 Contact Hours**

- Human Geography: Nature and scope of Human Geography,
- Approaches to the Human Geography,
- Determinism,
- Environmental Determinism,
- Possibilism
- Neo-determinism, ecological and Behaviouralism

### **Unit II**

**15 Contact Hours**

People

- Trends and patterns of population growth: determinants and patterns of population distribution;
- Theories, demographic transition;
- Human migration, Patterns of human development

### **Unit III**

**15 Contact Hours**

Human Activities:

- Primary: Hunting, gathering, Herding (Nomadic & Commercial) Lumbering fishing, mining and agriculture, agricultural practices, some major crops.
- Secondary: - Industries: Classification.

- Theories of localization, major Industries, recent trends in industries, world comparisons.
- Tertiary:- (Services).
- Quaternary- Quinary activities.
- Planning in India: target area planning, idea of sustainable development

#### **Unit IV: Practicum**

- Elements and classification of maps, scales, map-projections, finding directions, latitudes, longitudes and calculation of local & standard time,
- Identification & Analysis of relief forms: Topographical Maps and interpretation.
- Weather- instruments and interpretation of weather maps.
- Digital mapping,
- Remote sensing,
- Visual interpretation

#### **Suggested Readings**

- Gamier, B. G. (1963). Practical Work in Geography, Edwar Arnold, London.
- Hagget, P. et.al. (Ed.) (1995). Diffusing Geography: Essays for Peter Haggett, Blackwell, Oxford.
- Hudson, F. S. (1976). Settlement Geography. Macdonald and Evans, Plymouth.
- Jarrett, H. R. (1977). Geography of Manufacturing, Macdonald and Evans, Plymouth.
- Jasbir, S. and Dhillon, S. S. (1984). Agricultural Geography, Tata McGraw Hill, New Delhi.
- Minsull, R. (1970). The Changing Nature of Geography. Methuen: London.
- Monkhouse, E. J. (1970). Dictionary of Geography, Aldine, Chicago.
- Sharma, R. C. and Vatal, M. (1980). Oceanography for Geographers, Chaitanya, Allahabad.

#### **Advance Readings**

- Blij, H. J., & Muller, P. O. (2014). Physical Geography: The Global Environment (5th ed.). Wiley.
- Campbell, J. B. (2015). Introduction to Remote Sensing (5th ed.). The Guilford Press.
- De Blij, H. J., Muller, P. O., Nijman, J., & Oosthuizen, G. C. (2018). The World Today: Concepts and Regions in Geography (8th ed.). Wiley.
- Hoggart, K., & Buller, H. (2017). Geographies of Development: An Introduction to Development Studies (4th ed.). Pearson.

- Johnston, R. J., Gregory, D., Pratt, G., & Watts, M. J. (2016). The Dictionary of Human Geography (6th ed.). Wiley-Blackwell.
- Jones, H. (2019). An Introduction to Population Geography (4th ed.). Routledge.
- Knox, P. L., & Marston, S. A. (2016). Human Geography: Places and Regions in Global Context (7th ed.). Pearson.
- Pacione, M. (2019). Urban Geography: A Global Perspective (4th ed.). Routledge.

**Online References**

- 29. <https://swayam.gov.in>
- 30. <http://www.ncte.nic.in>
- 31. <http://egyankosh.ac.in>
- 32. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student’s performance based on continuous evaluation.**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the nature and scope of Human Geography, including various approaches.	PO1
CO2	Analyze population trends and patterns, including factors influencing population growth and distribution.	PO6
CO3	Examine various human activities, and gain an understanding of quaternary and quinary activities and the concept of sustainable development in the context of planning in India.	PO3
CO4	Develop practical skills in map interpretation and analysis, including understanding the elements and classification of maps, scales, map projections, finding directions, latitudes, longitudes, and calculating local and standard time.	PO9
CO5	Apply knowledge through a practicum, where students engage in hands-on activities involving map analysis, relief form identification, weather interpretation, digital mapping, remote sensing, and visual interpretation.	PO5

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
Geography III 373A	3		3		3	3			3				3	3

Programme and Course Mapping														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CO 1	3												2	
CO 2						3								3
CO 3			3											
CO 4									3					
CO 5					5									
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	
Local	
Regional	
National	Human Geography
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	Behaviouralism
Environment & Sustainability	Environmental Determinism
Unit II	People
Local	
Regional	
National	Trends and patterns of population growth
Global	Theories, demographic transition
Employability	Human migration, Patterns of human development
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	demographic transition
Unit III	Human Activities
Local	
Regional	
National	Hunting, gathering, Herding
Global	
Employability	Secondary: - Industries: Classification
Entrepreneurship	
Skill Development	Theories of localization
Professional Ethics	
Gender	
Human Values	Hunting, gathering, Herding
Environment & Sustainability	Planning in India: target area planning, idea of sustainable development
Unit IV	Practicum
Local	
Regional	
National	Elements and classification of maps
Global	



Employability	Identification & Analysis of relief forms
Entrepreneurship	Remote sensing, Visual interpretation
Skill Development	Digital mapping
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	4,13
NEP 2020	
POE/4 <sup>th</sup> IR	

<b>SEED375A</b>	<b>ECONOMICS III</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Growth and Development of Indian economy				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Create awareness about different types of taxation and expenditures in an economy with knowledge.
- Develop an understanding of foreign exchange mechanism.
- Evaluate the effectiveness of the Government policies.
- Familiarise with various methods of finance.
- Develop an understanding about international trade.

### Course Outcomes

On the completion of course the student-teachers will be able to:

**CO1:** Understand the concept of Public Finance and sources of conventional government revenue and expenditure

**CO2:** learn about the Country's tax structure and distinguish between the different types of tax structures: progressive, proportional and regressive taxes including GST

**CO3:** Understand current major issues and debates in global economy

**CO4:** Develop analytical and critical thinking skills and use them to judge the appropriateness of international trade policy options.

### Catalog Description:

Government policies and procedures affect almost everything that we do in our daily lives. The theme of the course is to study the role of government in Indian economy and to seek the answers to the following questions -

Why nations trade? What they trade? and who gains (or not) from this trade? The motives for countries or organizations to restrict or regulate international trade and the effects of such policies on economic welfare are also covered in this syllabus.

## Course Content

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### Unit I:

15 Contact Hours

#### Public Finance

- Introduction and definition of public finance
- Role of Government in the Economic Activity; Allocation, Distribution and Stabilizations
- Public, Private and Merit Goods
- Meaning and concept of Public expenditure and revenue
- Principle of maximum social advantage

### Unit II:

12 Contact Hours

#### Government Revenue and Expenditure

- Sources of revenue and Allocation of resources
- Government Budget, Budget Deficit
- India Taxation system with recent Reforms (GST)
- Indian Federal Finance
- Public Expenditure in India

### Unit III:

12 Contact Hours

#### International Trade

- Interregional and International trade
- International trade and growth
- Absolute and Comparative Advantage
- BOP and BOT, Free trade and protection
- Tariff and non-tariff methods
- Concept of foreign exchange mechanism
- Foreign trade of India and trade policy

### Unit IV

15 Contact Hours

#### Trade Reforms in India

- Liberalization
- Privatization

- Globalization
- FDI, SEZ
- Inclusive growth.

### Advanced Readings

1. Lekhi, R. K., Singh, Joginder. Public Finance, Kalayani Publishers.
2. Salvatore, D. (1997). International Economics, PHI, New York

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the concept of Public Finance and sources of conventional government revenue and expenditure	PO7
CO2	learn about the Country's tax structure and distinguish between the different types of tax structures: progressive, proportional and regressive taxes including GST	PO7
CO3	Understand current major issues and debates in global economy	PO4
CO4	Develop analytical and critical thinking skills and use them to	PO3

	judge the appropriateness of international trade policy options	
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		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 375A	Economics III			3	3			3	2		2			3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
C							3						2	
O							3							3
C				3										
O			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	<b>Public Finance</b>
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Local	
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Introduction and definition of public finance</li> <li>• Role of Government in the Economic Activity; Allocation, Distribution and Stabilizations</li> <li>• Public, Private and Merit Goods</li> <li>• Meaning and concept of Public expenditure and revenue</li> <li>• Principle of maximum social advantage</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Introduction and definition of public finance</li> <li>• Role of Government in the Economic Activity; Allocation, Distribution and Stabilizations</li> <li>• Public, Private and Merit Goods</li> <li>• Meaning and concept of Public expenditure and revenue</li> <li>• Principle of maximum social advantage</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Government Revenue and Expenditure</b>
Local	
Regional	
National	<ul style="list-style-type: none"> <li>• India Taxation system with recent Reforms (GST)</li> <li>• Government Budget, Budget Deficit</li> <li>• India Taxation system with recent Reforms (GST)</li> <li>• Indian Federal Finance</li> <li>• Public Expenditure in India</li> </ul>
Global	
Employability	<ul style="list-style-type: none"> <li>• Sources of revenue and Allocation of resources</li> <li>• Government Budget, Budget Deficit</li> <li>• India Taxation system with recent Reforms (GST)</li> </ul>

	<ul style="list-style-type: none"> <li>• Indian Federal Finance</li> <li>• Public Expenditure in India</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Sources of revenue and Allocation of resources</li> <li>• Government Budget, Budget Deficit</li> <li>• India Taxation system with recent Reforms (GST)</li> <li>• Indian Federal Finance</li> <li>• Public Expenditure in India</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>International Trade</b>
Local	
Regional	
National	Foreign trade of India and trade policy
Global	Interregional and International trade International trade and growth
Employability	Interregional and International trade International trade and growth Absolute and Comparative Advantage BOP and BOT, Free trade and protection Tariff and non-tariff methods Concept of foreign exchange mechanism Foreign trade of India and trade policy
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	

Unit IV	Trade Reforms in India
Local	
Regional	
National	
Global	
Employability	Liberalization Privatization Globalization FDI, SEZ Inclusive growth.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Liberalization Privatization Globalization FDI, SEZ Inclusive growth.
SDG	Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all (SDG 9.1) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8), End poverty in all its forms everywhere (SDG 1), End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2)
NEP 2020	Professional Education (17.1-17.5), Promoting High-quality research (18.1-18.9), Towards a More Holistic and Multidisciplinary Education (11.1- 11.13) , Re-imagining Vocational Education (16.1-16.7)
POE/4 <sup>th</sup> IR	Practical Courses from Industry/Alumni, Case Competitions, Entrepreneurial Program through Innovation System, Focus on Employability Skills (Local/Regional and Global) / Skill Development, Entrepreneurship ,Employability



## Semester VI

<b>SEED375A</b>	<b>Contemporary India and Education</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	History of India				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- To acquire knowledge about the salient features of our Constitution and constitutional measures to protect diversities
- To develop understanding of the issues in contemporary India like industrialization, urbanization, globalization, modernization, economic liberalization and digitalization etc.
- To appraise about the policy initiatives taken in education reform during pre- and post-independent India.
- To develop overall understanding of the working and recommendations of various Commissions and Committees constituted for improving education in the country.
- To make them aware of innovations and new measures towards universalization of education including the role of Panchayati Raj Institutions.
- To familiarize with various incentive schemes like mid-day meal, support to economically, socially and educationally backward communities.
- To develop understanding of the issues, and challenges faced by Indian contemporary society.

### Course Outcomes

On completion of this course the student-teachers will be able to:

- CO1.** Identify the key aspects of the Constitution and various measures to protect the diversities.
- CO2.** Recognize the existence of inequalities in society and policy initiatives to protect the rights of disadvantaged and marginalized sections of society.
- CO3.** Explain the issues like industrialization, urbanization, globalization,

modernization, economic liberalization and digitalization and their relevance for Indian society.

**CO4.** Understand the policy initiatives taken in education during pre- and post-independent India.

**CO5.** Critically appraise working and recommendations of various Commissions and Committees constituted for improving education in the country especially with reference to certain groups of society.

**CO6.** Critically analyze the implementation plan of several policies and programmes and suggest further interventions.

### **Catalog Description**

India, as a country and society has been in transition and has evolved as the melting pot for various diversities including religious, cultural, socio-economic, linguistic, geographical, regional and philosophical thoughts operating through maturing democratic system of interactions and governance. The country administered through rule of law and the constitution embodies the aspirations for our evolution as a cohesive society and a strong and leading nation in the world community. The continuing evolution of our egalitarian society and peaceful transformation of the nation needs to be understood by the student-teachers. Study of this course will enable the students to understand socio-economic, linguistic, geographical etc. ethos of the nation, thereby help them effectively discharge their role in the society with numerous diversities. The student-teachers will also understand the role of education as an intervention tool for desired changes in the country. The course will help the students to appreciate the influence of social set-up on education in which it operates.

### **Course Content**

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#### **Unit I:**

**15 Contact Hours**

#### **Contemporary India**

- Social Stratification-forms and function; caste and class; region and religion
- Types of Society-tribal, Agrarian; industrial, post industrial society
- Educational scenario of India: diversity in terms of educational opportunities- religion, caste, class, gender, language, region and tribes
- Challenges in achieving universal elementary education

- Impact of Urbanization; Industrialization; Globalization, modernization, economic liberalization and digitalization etc.
- Population explosion and educational challenge: Population size; composition and distribution in India; consequences of population growth

**Unit II:**

**15 Contact Hours**

**Constitutional Provisions and Education**

- Constitutional provisions on education that reflect National ideals: Democracy and the values of equality, justice, freedom, concern for others' well-being, secularism, respect for human dignity and rights.
- Aims and purposes of education drawn from constitutional provision
- Constitutional interventions for universalization of education and RTE Act 2009
- Decentralization of Education and Panchayati Raj (specifically through 7<sup>3rd</sup> and 7<sup>4th</sup> amendment)
- Role of Central and State governments in the development of education

**Unit III:**

**10 Contact Hours**

**Policy Framework for Development of Education in India**

- Overview of educational reform in the Pre-independence period- Macaulay' minutes, Wood Dispatch, Hunter Commissions; Sargent Report, Basic Education
- Education in Post-Independence Period: Mudaliar Commission(1952) Education Commission (1964-66);NPE 1968;NPE 1986 and its modified version 1992; Knowledge Commission
- Language Policy
- Learning Without Burden-1993
- Justice Verma Commission-2012

**Unit IV:**

**10 Contact Hours**

**Contemporary Indian Education: Concerns, Issues and Initiatives**

- Challenges in Implementation of RTE Act 2009

- Right to Education and Universal Access:
- Issues of a) Universal enrolment b) Universal retention c) Universal success
- Issues of quality and equity.
- School safety

*The above to be discussed with specific reference to physical, economic, social and cultural access, particularly to girl child and weaker sections as well as differently-abled children.*

- Sarva Shiksha Abhiyan (SSA)
- Rashtriya Madhyamik Shiksha Abhiyan (RMSA)
- Mid-day Meal
- Schemes for girls, SC, ST and Marginalised Group
- ICT In School Education- National Repository of Open Educational Resources (NROER)
- Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT)
- Equality of Educational Opportunity
- Meaning of equality and constitutional provisions
- Prevailing nature and forms of inequality, including dominant and minor groups and related issues

### **Practicum (Any One)**

1. Case study of different kind of schools.
2. Conflicts and Social Movements in India: Women, Dalit and tribal movements.
3. Marginalization and education of children from slums and distress migration
4. Impact of electronic media on children.
5. Conduct of survey of government and private schools to identify various forms of inequality.
6. Survey of nearby locality to find out the causes of low literacy.

### **Suggested Text Books**

1. Husain, N. (2017). Contemporary India and Education. Shipra Publications.
2. Parvez, M., Shakir, M. (2017). Contemporary Issues in education: A Perspective. Shipra Publications.

### **Advanced Readings**

1. Sachdeva, M.S., Kumar, C., Sharma, K.K., Sharma, S. (2015). Contemporary India and Education. Twenty First Century Publications.
2. Sharma, A.P. & Dayama, S. (2017). Contemporary India and Education. Rakhi Prakashan.

**Modes of Evaluation: Student's performance based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Identify the key aspects of the Constitution and various measures to protect the diversities.	PO5
CO2	Recognize the existence of inequalities in society and policy initiatives to protect the rights of disadvantaged and marginalized sections of society.	PO6
CO3	Explain the issues like industrialization, urbanization, globalization, modernization, economic liberalization and digitalization and their relevance for Indian society.	PO7
CO4	Understand the policy initiatives taken in education during pre- and post-independent India.	PO3
CO5	Critically appraise working and recommendations of various Commissions and Committees constituted for improving education in the country especially with reference to certain groups of society.	PO3
CO6	Critically analyze the implementation plan of several policies and programmes and suggest further interventions.	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 348A	Contemporary India and Education			3		3		3					3	3	3

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CO 1					3							3		3
CO 2						3							3	
CO 3							3							
CO 4			3											
CO 5			3											
CO 6			3											

1=lightly mapped

2= moderately mapped

3=strongly mapped

<b>Unit I</b>	<b>Contemporary India</b>
Local	Social Stratification-forms and function; caste and class; region and religion
Regional	Social Stratification-forms and function; caste and class; region and religion
National	Types of Society-tribal, Agrarian; industrial, post-industrial society
Global	Impact of Urbanization; Industrialization; Globalization, modernization, economic liberalization and digitalization etc.
Employability	Industrialization; Globalization, modernization, economic liberalization and digitalization etc, Population explosion and educational challenge: Population size; composition and distribution in India; consequences of population growth
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	Social Stratification-forms and function; caste and class; region and religion
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Constitutional Provisions and Education</b>
Local	
Regional	
National	Constitutional provisions on education that reflect National ideals: Democracy and the values of equality, justice, freedom, concern for others' well- being, secularism, respect for human dignity and rights.
Global	
Employability	
Entrepreneurship	
Skill	

Development	
Professional Ethics	Constitutional provisions on education that reflect National ideals: Democracy and the values of equality, justice, freedom, concern for others' well- being, secularism, respect for human dignity and rights.
Gender	
Human Values	Constitutional provisions on education that reflect National ideals: Democracy and the values of equality, justice, freedom, concern for others' well- being, secularism, respect for human dignity and rights.
Environment & Sustainability	
<b>Unit III</b>	<b>Policy Framework for Development of Education in India</b>
Local	
Regional	Language Policy
National	Overview of educational reform in the Pre-independence period- Macaulay' minutes, Wood Dispatch, Hunter Commissions; Sargent Report, Basic Education
Global	
Employability	
Entrepreneurship	
Skill Development	Overview of educational reform in the Pre-independence period- Macaulay' minutes, Wood Dispatch, Hunter Commissions; Sargent Report, Basic Education
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Contemporary Indian Education: Concerns, Issues and Initiatives</b>
Local	
Regional	
National	
Global	



Employability	
Entrepreneurship	
Skill Development	ICT In School Education- National Repository of Open Educational Resources (NROER)
Professional Ethics	
Gender	School safety Schemes for girls, SC, ST and Marginalised Group
Human Values	Equality of Educational Opportunity
Environment & Sustainability	
SDG	
NEP 2020	6. Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	

<b>SEED350A</b>	<b>Pedagogy of Environmental Studies</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of environmental sciences				
<b>Co-requisites</b>	--				

### **Course Objectives**

The student-teachers will be able:

- To develop an understanding about the concept of EVS as a discipline and its interrelationship with different school subjects.
- To study different approaches in the construction and transaction of curriculum.
- To understanding the pedagogy of EVS.

### **Course Outcomes**

On the completion of the course student-teachers will be able to:

- CO1.** Evaluate the significance of environmental studies at the elementary level of education.
- CO2.** Critically analyse the approaches to the construction and transaction of curriculum.
- CO3.** Identify the different kinds of evaluation systems and apply them in assessing the students.

### **Catalog Description**

This course aims to expose students to the significance of EVS as a curricular area at the primary level, while engaging in a critical enquiry of EVS as a school subject; students also learn to develop insights into the issues of curriculum design and implementation.

### **Course Content**

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#### **Unit I: 10 Contact Hours**

##### **Concept of Environmental Studies (EVS)**

- Evolution and significance as a curricular area at primary level
- EVS - an approach, a discipline or both; environmental studies
- Environmental education- its scope-integration related to the physical, social, historical and cultural aspects of the environments.

**Unit II:****10 Contact Hours****Basic Considerations in Developing Curriculum in EVS**

- Relating cognitive growth of children to the development of concepts
- Alternative frameworks; differences in approaches to the construction and transaction of curriculum at classes I and II and classes iii to V; a review of different sets of curricular materials including Suggested Text Books.

**Unit III:****08 Contact Hours****Understanding the Method of Science**

- Process approach in EVS; planning for and organisation of teaching-learning activities
- Unit and lesson planning; role of inquiry, experiment, discussion, drama etc.
- Evaluation and testing.

**Unit IV:****12 Contact Hours****Practicum (Any Two)**

- Using equipment and materials : films, reports, documents, 11,ewspapers, local maps, atlas, wall charts; map drawing and reading weather charts; making charts, diagrams and models.
- Collection and presentation of specimens: leaves, rocks, stamps, flags, news items etc. (classifying the material collected and maintaining a museum).
- Undertaking a project e.g. planting and nurturing a tree (in science)' and an oral history project (in social studies).

**Suggested Text Books**

1. NCERT (2008). Source Book on Assessment for Classes I–V, Environmental Studies, New Delhi: NCERT.
2. Singh, Y. K. (2007). *Teaching practice: lesson planning*. APH Publishing.
3. Singh, Y.K.. (2005). *Teaching of Environmental Science*. APH Publishing Corporation.
4. Tomar, A. (2007). *Environmental education*. Kalpaz Publications.

**Advanced Readings**

1. Kochar SK (1989) *Methods and techniques of teaching*. Sterling publications, New Delhi.

2. NCERT, 1991a: Elementary teacher education curriculum—guidelines and syllabi, NCERT, New Delhi.
3. Ravindranath.M.J , 2011: Teaching-learning of EVS in Elementary Schools, Module for National Institute for Open Schooling, New Delhi.
4. UNESCO (1990). An Environmental Education Approach to the Training of Middle Level.
5. UNICEF (2008). Best Practice Guidelines for teaching Environmental Studies in Maldivian Primary Schools: UNICEF.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Evaluate the significance of environmental studies at the elementary level of education.	PO3
CO2	Critically analyse the approaches to the construction and transaction of curriculum.	PO9
CO3	Identify the different kinds of evaluation systems and apply them in assessing the students.	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED350A	Pedagogy of Environmental Studies	3		2						3		3	2		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3	
C O 1			2									2			
C O 2									3						
C O 3			3												
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															

<b>Unit I</b>	<b>Concept of Environmental Studies (EVS)</b>
Local	Evolution and significance as a curricular area at primary level
Regional	Evolution and significance as a curricular area at primary level
National	Evolution and significance as a curricular area at primary level EVS - an approach, a discipline or both; environmental studies Environmental education- its scope-integration related to the physical, social, historical and cultural aspects of the environments
Global	Environmental education- its scope-integration related to the physical, social, historical and cultural aspects of the environments
Employability	EVS - an approach, a discipline or both; environmental studies
Entrepreneurship	
Skill Development	Environmental education- its scope-integration related to the physical, social, historical and cultural aspects of the environments
Professional Ethics	Evolution and significance as a curricular area at primary level
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Basic Considerations in Developing Curriculum in EVS</b>
Local	
Regional	
National	Relating cognitive growth of children to the development of concepts Alternative frameworks; differences in approaches to the construction and transaction of curriculum at classes I and II and classes iii to V; a review of different sets of curricular materials including Suggested Text Books
Global	Relating cognitive growth of children to the development of concepts
Employability	Alternative frameworks; differences in approaches to the construction and transaction of curriculum at classes I and II and classes iii to V; a review of different sets of curricular materials including Suggested Text Books
Entrepreneurship	
Skill Development	Alternative frameworks; differences in approaches to the construction and transaction of curriculum at classes I and II and classes iii to V; a review of different sets of curricular materials including Suggested Text Books
Professional Ethics	Relating cognitive growth of children to the development of concepts

Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Understanding the Method of Science</b>
Local	
Regional	
National	<ul style="list-style-type: none"> <li>• Process approach in EVS; planning for and organisation of teaching-learning activities</li> <li>• Unit and lesson planning; role of inquiry, experiment, discussion, drama etc.</li> </ul>
Global	
Employability	<ul style="list-style-type: none"> <li>• Evaluation and testing.</li> </ul>
Entrepreneurship	
Skill Development	Process approach in EVS; planning for and organisation of teaching-learning activities
Professional Ethics	Unit and lesson planning; role of inquiry, experiment, discussion, drama etc.
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Practicum</b>
Local	Using equipment and materials : films, reports, documents, 11,ewspapers, local maps, atlas, wall charts; map drawing and reading weather charts; making charts, diagrams and models.
Regional	Collection and presentation of specimens: leaves, rocks, stamps, flags, news items etc. (classifying the material collected and maintaining a museum).

National	Undertaking a project e.g. planting and nurturing a tree (in science)' and an oral history project (in social studies)
Global	
Employability	Undertaking a project e.g. planting and nurturing a tree (in science)' and an oral history project (in social studies)
Entrepreneurship	
Skill Development	Collection and presentation of specimens: leaves, rocks, stamps, flags, news items etc. (classifying the material collected and maintaining a museum)
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	Implement nationally appropriate social protection systems and measures for all, Create sound policy frameworks Safe and Inclusive Learning Environments
NEP 2020	Curriculum and Pedagogy in Schools, Teachers, Equitable and Inclusive Education: Learning for All, Towards a More Holistic and Multidisciplinary Education Technology Use & Integration
POE/4 <sup>th</sup> IR	Simulation and Technical Skills that match Industry Needs



<b>SEED352A</b>	<b>PEDAGOGY OF LANGUAGE</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Aptitude of Teaching				
<b>Co-requisites</b>	--				

### **Course Objectives**

The course will enable the student-teachers to:

- Understand factors responsible for language development in term of social and linguistic stereotypes, ethnocentrism and authoritarianism.
- Understand the significance of multilingual societies in language acquisition.
- Develop an understanding about the method of teaching a language and evaluation techniques employed for the same.

### **Course Outcomes**

On the completion of the course student-teachers will be able to:

CO1. Evaluate the factors responsible for language development in term of socio-linguistic scenario.

CO2. Assess the challenges of multilingual classrooms

CO3. Apply the different evaluation techniques and assessment in classroom discourse.

CO4. Apply various methods, approaches and materials for teaching English in multilingual classrooms.

### **Catalogue Description**

This course offers an in-depth study of language learning as a process determined not only by an awareness of language structure but one that is critically influenced by the sociocultural aspects of a child's milieu. The course also equips students with skills of designing activities and developing techniques to transact the language curriculum.

## **Course Content**

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### **Unit I**

**10 Contact Hours**

#### **The Learner: Social and Individual Aspects**

- Nature of Family Background- Schooling, Exposure
- The Role of Mass Media
- Affective Filter
- Attitudes
- Motivation
- Aptitude
- Social and Linguistic Stereotypes
- Ethnocentrism
- Authoritarianism

### **Unit II**

**10 Contact Hours**

#### **Methods, Approaches and Techniques in English Language Teaching**

- Grammar - Translation Method
- Direct Method
- The Structural Approach
- The Audio-lingual Method
- The Constructivist Approach
- The Communicative Approach
- The Natural Method
- Total Physical Response

### **Unit- III:**

**10 Contact Hours**

#### **Planning for Teaching English and ICT in ELT**

- Lesson Planning- Format and Construction

- Micro Teaching
- Use of Multimedia in ELT
- Online Resources for ELT- Definition, Importance of Online Resources
- ELT and Social Networking Websites
- Role of the Teacher in Social Networking

#### **Unit IV** **10 Contact Hours**

##### **Language Assessment and Evaluation**

- Taxonomy of Tests: Discrete Point and Integrative Tests
- Doze, Dictation and Translation- New Perspectives
- Communicative Testing
- Process Evaluation
- Participatory Evaluation.
- Characteristics of a Good Test
- Preparation and Construction of Tests

##### **Practical (Any Two)**

- Prepare a questionnaire, interview ten people and write a report on ‘English Language in India’.
- Prepare a report on the challenges faced by the teachers and the learners in the teaching-learning process.
- Visit 5 schools in the neighborhood and prepare a report on the three language formula being implemented in the schools.
- Do a comparative study of positive features and weaknesses of different methods and approaches to language learning.
- Keeping in view the needs of the children with special needs prepare two activities for English Teachers.
- Prepare a questionnaire, interview ten people and write a report on ‘English Language in India’.
- Prepare a lesson plan of the Primary Class. Represent the Teaching Activity in the class. The classmates will observe and give feedback on Teaching Process.
- Take different types of texts from content areas. Analyze the language and develop a thematic lesson design.

### Text Books

1. Sachdeva, M. S. (2013). Teaching of English. *Twenty First Century Publication, Patiala.*
2. Percy, R. (2012). Teaching of English. *Neelkamal Publications, Hyderabad.*
3. A.L. Kohli (2013). Techniques of Teaching English. *Dhanpat Rai Publishing Company Private Limited, New Delhi.*

### Advanced Readings

1. Jeremy Harmer (1998). The Practice of English Language Teaching, *Longman Handbooks for Language Teachers.*
2. M.L. Tikoo (2003). Teaching and Learning English: A Sourcebook for Teachers and Teacher-Trainers. *Orient Black Swan.*
3. National Curriculum Framework (2005). Position Paper, National Focus Group on Teaching of English. *NCERT, 2006.*

### Modes of Evaluation: Student's performance based on continuous evaluation

#### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Evaluate the factors responsible for language development in term of socio-linguistic scenario.	PO7
CO2	Assess the challenges of multilingual classrooms	PO5
CO3	Apply the different evaluation techniques and assessment in classroom discourse.	PO1
CO4	Apply various methods, approaches and materials for teaching English in multilingual classrooms.	PO11

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEE D 352A	Pedagogy of Language	3				3		3				3		3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3	
CO 1							3								
CO 2					3								3		
CO 3	3														
CO 4											3				
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															

Unit I	<b>The Learner: Social and Individual Aspects</b>
Local	<ul style="list-style-type: none"> <li>• Nature of Family Background- Schooling, Exposure</li> <li>• The Role of Mass Media</li> <li>• Affective Filter</li> <li>• Attitudes</li> <li>• Motivation</li> <li>• Aptitude</li> <li>• Social and Linguistic Stereotypes</li> <li>• Ethnocentrism</li> <li>• Authoritarian</li> </ul>
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Nature of Family Background- Schooling, Exposure</li> <li>• The Role of Mass Media</li> <li>• Affective Filter</li> <li>• Attitudes</li> <li>• Motivation</li> <li>• Aptitude</li> <li>• Social and Linguistic Stereotypes</li> <li>• Ethnocentrism</li> <li>• Authoritarian</li> </ul>
Entrepreneurship	
Skill Development	
Professional Ethics	<ul style="list-style-type: none"> <li>• Nature of Family Background- Schooling, Exposure</li> <li>• The Role of Mass Media</li> <li>• Affective Filter</li> <li>• Attitudes</li> <li>• Motivation</li> <li>• Aptitude</li> <li>• Social and Linguistic Stereotypes</li> </ul>

	<ul style="list-style-type: none"> <li>• Ethnocentrism</li> <li>• Authoritarian</li> </ul>
Gender	
Human Values	<ul style="list-style-type: none"> <li>• Nature of Family Background- Schooling, Exposure</li> <li>• The Role of Mass Media</li> <li>• Affective Filter</li> <li>• Attitudes</li> <li>• Motivation</li> <li>• Aptitude</li> <li>• Social and Linguistic Stereotypes</li> <li>• Ethnocentrism</li> <li>• Authoritarian</li> </ul>
Environment & Sustainability	
<b>Unit II</b>	<b>Methods, Approaches and Techniques in English Language Teaching</b>
Local	
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Grammar - Translation Method</li> <li>• Direct Method</li> <li>• The Structural Approach</li> <li>• The Audio-lingual Method</li> <li>• The Constructivist Approach</li> <li>• The Communicative Approach</li> <li>• The Natural Method</li> <li>• Total Physical Response</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Grammar - Translation Method</li> <li>• Direct Method</li> <li>• The Structural Approach</li> <li>• The Audio-lingual Method</li> <li>• The Constructivist Approach</li> <li>• The Communicative Approach</li> </ul>

	<ul style="list-style-type: none"> <li>• The Natural Method</li> <li>• Total Physical Response</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Grammar - Translation Method</li> <li>• Direct Method</li> <li>• The Structural Approach</li> <li>• The Audio-lingual Method</li> <li>• The Constructivist Approach</li> <li>• The Communicative Approach</li> <li>• The Natural Method</li> <li>• Total Physical Response</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Planning for Teaching English and ICT in ELT</b>
Local	<ul style="list-style-type: none"> <li>• Lesson Planning- Format and Construction</li> <li>• Micro Teaching</li> <li>• Use of Multimedia in ELT</li> <li>• Online Resources for ELT- Definition, Importance of Online Resources</li> <li>• ELT and Social Networking Websites</li> <li>• Role of the Teacher in Social Networking</li> </ul>
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Lesson Planning- Format and Construction</li> <li>• Micro Teaching</li> <li>• Use of Multimedia in ELT</li> <li>• Online Resources for ELT- Definition, Importance of Online Resources</li> <li>• ELT and Social Networking Websites</li> <li>• Role of the Teacher in Social Networking</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Lesson Planning- Format and Construction</li> </ul>



	<ul style="list-style-type: none"> <li>• Micro Teaching</li> <li>• Use of Multimedia in ELT</li> <li>• Online Resources for ELT- Definition, Importance of Online Resources</li> <li>• ELT and Social Networking Websites</li> <li>• Role of the Teacher in Social Networking</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Lesson Planning- Format and Construction</li> <li>• Micro Teaching</li> <li>• Use of Multimedia in ELT</li> <li>• Online Resources for ELT- Definition, Importance of Online Resources</li> <li>• ELT and Social Networking Websites</li> <li>• Role of the Teacher in Social Networking</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Language Assessment and Evaluation</b>
Local	
Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Taxonomy of Tests: Discrete Point and Integrative Tests</li> <li>• Doze, Dictation and Translation- New Perspectives</li> <li>• Communicative Testing</li> <li>• Process Evaluation</li> <li>• Participatory Evaluation.</li> <li>• Characteristics of a Good Test</li> <li>• Preparation and Construction of Tests</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Taxonomy of Tests: Discrete Point and Integrative Tests</li> <li>• Doze, Dictation and Translation- New Perspectives</li> <li>• Communicative Testing</li> <li>• Process Evaluation</li> </ul>

	<ul style="list-style-type: none"> <li>• Participatory Evaluation.</li> <li>• Characteristics of a Good Test</li> <li>• Preparation and Construction of Tests</li> </ul>
Professional Ethics	<ul style="list-style-type: none"> <li>• Taxonomy of Tests: Discrete Point and Integrative Tests</li> <li>• Doze, Dictation and Translation- New Perspectives</li> <li>• Communicative Testing</li> <li>• Process Evaluation</li> <li>• Participatory Evaluation.</li> <li>• Characteristics of a Good Test</li> <li>• Preparation and Construction of Tests</li> </ul>
Gender	
Human Values	
Environment & Sustainability	
SDG	Quality primary/ Secondary Education for all (SDG4.1) Skills for Decent Work (SDG 4.4)
NEP 2020	Foundational Literacy and Numeracy: An Urgent & Prerequisite to Learning (2.1-2.9), Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
POE/4 <sup>th</sup> IR	Technical Skills that match Industry Needs on Employability Skills (Local/Regional and Global) the hands-on activities on each Methods, Approaches and Techniques in English Language Teaching
	Focus Prepared

<b>SEED354A</b>	<b>PEDAGOGY OF MATHEMATICS</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Fundamentals of Mathematics				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- Develop basic understanding in to the nature of Mathematics in school curriculum in terms of structure, language, notation, concepts and procedures.
- Contribute to the development of logical thinking, reasoning and representation of formal and abstract operation.
- Understand about the pedagogical and evaluation techniques of teaching Mathematics.
- Develop an understanding of application of Mathematics in day to day life.

### Course Outcomes

On the completion of this course the student-teachers will be able to:

**CO1** Understand the nature and characteristics of language of mathematics and its correlation with science and other subjects.

**CO 2** State the aims and objectives of teaching mathematics

**CO 3** Understand the various methods and techniques of teaching mathematics.

**CO 4** Develop an ability to understand various methods of evaluation of students' performance in mathematics.

**CO 5** Develop skills of making teaching learning process experiential and joyful

### Catalog Description

This course attempts to develop an understanding of the nature of mathematics and of children's thinking and implications for pedagogical practice at the upper primary level. Pedagogy of Mathematics deals with developing varying skills specific to the teaching of Mathematics. Study of this course helps in developing logical thinking, reasoning and representational abilities regarding various topics like geometry, practical arithmetic, number, algebra, ratio and proportion etc. Evaluation in mathematics gives us an understanding of how children learn and work and some ways to solve their problems.

## Course Content

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### Unit I:

**10 Contact Hours**

- What is Mathematics: patterns; reasoning; generalizations; nature of mathematical statements-axioms and postulates; explanations and proofs; parsimony; necessity and sufficiency.
- Nature of mathematics in the curriculum: structure; language; notation; concepts and procedures.
- Development of children's logical thinking, reasoning and representation (formal operations and abstraction).

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### Unit II:

**10 Contact Hours**

- Pedagogical considerations in geometry, practical arithmetic, number, algebra, data handling and statistics, ratio and proportional reasoning,

### Unit III:

**10 Contact Hours**

- Communicating Mathematics: activity; graphical methods; construction; measurement; modelling; computation. Use of computers and calculators in instruction.
- Helping children develop a mathematical view of the world, initiating students' investigations and independent activity and problem solving strategies.

### Unit IV:

**10 Contact**

### Hours

- Feedback, testing, evaluation and remedial teaching.

### Suggested Text Books:

1. Mangal, S.K. (2007). Teaching of Mathematics, New Delhi: Arya Book Depot.
2. Kulshreshtha, A.K. (2012) Teaching of Mathematics, R. Lall and Sons. Meerut, U.P.

### Advanced Readings :

1. Grouws, P. A. (1992). Handbook of Research on Mathematics Teaching and Learning, Reston: V.A.
2. Kapur S.K. (2005); Learn and Teach Vedic Mathematics; Lotus Publications.
3. Prevost, F. J. Rethinking How We Teach: Learning Mathematical Pedagogy, The Mathematics Teacher, Volume 86, (1).

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

### Modes of Evaluation: Student's performance based on continuous evaluation

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the nature and characteristics of language of mathematics and its correlation with science and other subjects.	PO1
CO2	State the aims and objectives of teaching mathematics	PO5
CO3	Understand the various methods and techniques of teaching mathematics.	PO3
CO4	Develop an ability to understand various methods of evaluation of students' performance in mathematics.	PO5
CO5	Develop skills of making teaching learning process experiential and joyful	PO9

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self Development and Community Attachment</b>	<b>S Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research and Entrepreneurial Skills</b>
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 354A	<b>Pedagogy of Mathematics</b>	2		2		3			2		3				

1= lightly mapped

2= moderately mapped

3=strongly mapped

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2
CO1	3												
CO2					3								
CO3			3										
CO4					3								
CO5									3				

1=lightly mapped                      2= moderately mapped                      3=strongly mapped

Unit I	
Local	
Regional	
National	Nature and structure of natural science; significance of natural science in the curriculum at the upper primary level.
Global	Study of cognitive growth and learning to the development of understanding and appreciation of science, Aims and objectives of teaching science.
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	
Local	Significance and bases of integration;
Regional	Aims and objectives of teaching integrated science.
National	Disciplinary and integrated approach to teaching;
Global	Levels of disciplinary growth of different natural sciences-descriptive, inductive, causal and formal. Significance and bases of integration;
Employability	Role of observation, experiment, discovery and intuition.
Entrepreneurship	
Skill Development	Aims and objectives of teaching integrated science.
Professional Ethics	Role of observation, experiment, discovery and intuition.
Gender	
Human Values	Significance and bases of integration;
Environment & Sustainability	
Unit III	
Local	Basic considerations in developing and transacting curriculum.
Regional	

National	Basic considerations in developing and transacting curriculum.
Global	Appraisal of existing curricula including innovative curricula in India and abroad.
Employability	Text analysis- text book, workbook and teacher's guide.
Entrepreneurship	
Skill Development	Text analysis- text book, workbook and teacher's guide.
Professional Ethics	Appraisal of existing curricula including innovative curricula in India and abroad.
Gender	
Human Values	
Environment & Sustainability	
Unit IV	
Local	Evaluation in science; cognitive, psycho-motor and affective aspects.
Regional	
National	Evaluation in science; cognitive, psycho-motor and affective aspects.
Global	Evaluation in science; cognitive, psycho-motor and affective aspects.
Employability	Test construction, analysis and interpretation.
Entrepreneurship	
Skill Development	Test construction, analysis and interpretation
Professional Ethics	Evaluation in science; cognitive, psycho-motor and affective aspects.
Gender	
Human Values	
Environment & Sustainability	
SDG	Quality primary/ Secondary Education for all (SDG4.1) and Skills for Decent Work (SDG 4.4)
NEP 2020	Equitable and Inclusive Education: Learning for All (6.1- 6.20), Arts & culture (22.1-22.15) and Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development, Soft Skills and Employability



<b>SEED356A</b>	<b>Pedagogy of Natural Sciences</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Concepts of natural sciences				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

1. To acquaint the students with the nature and structure of natural science in terms of its integration with different school subjects.
2. To appreciate the role of science in the cognitive growth of a learner and development of understanding of school Science.
3. Develop an understanding of different approaches to teaching of science.
4. Acquaint the students with different evaluation techniques in science with reference to cognitive, psycho-motor and affective domains.

### Course Outcomes

On completion of this course, the student-teachers will be able to:

- CO1.** Understand the nature and structure of natural science in terms of its integration with different school subjects.
- CO2.** Identify the role of science in the cognitive growth of a learner and development of understanding of school Science.
- CO3.** Apply various methods and techniques for teaching science in classroom settings.
- CO4.** Apply different assessment techniques as per the requirement in classrooms.

### Catalog Description

This course attempts to develop an understanding of the nature and structure of science and also the ability to transact and analyse science curriculum. Pedagogy of Natural Science is a study about the nature of science. Subject of Science is always about enquiry and experimenting about the enquiry. The course creates awareness about scientific processes and

skills that are helpful in our daily lives and also helps us to understand pedagogical and evaluative dimensions of science as a school subject

## **Course Content**

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### **Unit I: 10 Contact Hours**

- Nature and structure of natural science; significance of natural science in the curriculum at the upper primary level.
- Study of cognitive growth and learning to the development of understanding and appreciation of science, Aims and objectives of teaching science.

### **Unit II: 10 Contact Hours**

- Disciplinary and integrated approach to teaching;
- Levels of disciplinary growth of different natural sciences-descriptive, inductive, causal and formal.
- Significance and bases of integration;
- Aims and objectives of teaching integrated science.
- Role of observation, experiment, discovery and intuition.

### **Unit III: 10 Contact Hours**

- Basic considerations in developing and transacting curriculum.
- Appraisal of existing curricula including innovative curricula in India and abroad.
- Text analysis- text book, workbook and teacher's guide.

### **Unit IV: 10 Contact Hours**

- Evaluation in science; cognitive, psycho-motor and affective aspects.
- Test construction, analysis and interpretation.

### **Practicum**

1. Devising simple experiments related to topics in Class VI, VII, VIII.
2. Maintenance of Junior Science Laboratory.
3. Development of skills like observation; use of environmental and local resources; improvising apparatus; organising science clubs, fairs, museum and exhibitions.
4. Field trips.

### Suggested Text Books

1. Aggarwal, D. D. (2008). Modern Method of Teaching Biology, Karan paper Books. New Delhi.
2. Kulshreshtha, S.P. (2016). Pedagogy of Science, R Lall Publications.
3. Mangal, S.K. (2007). Teaching of life Science, New Delhi: Arya Book Depot.

### Advanced Readings

1. Sharma, R.C. (2006). Modern Science Teaching. New Delhi: Dhanpat Rai Publications.
2. Sundarajan, S. (1995). Teaching Science in Middle School: A Resource Book, Orient Longman: Hyderabad.
3. Yadav, M.S. (2003) Teaching of Science. New Delhi: Anmol Publications.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance is based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and Pos		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the nature and structure of natural science in terms of its integration with different school subjects.	PO1
CO2	Identify the role of science in the cognitive growth of a learner and development of understanding of school Science.	PO10

<b>CO3</b>	Apply various methods and techniques for teaching science in classroom settings.	<b>PO1</b>
<b>CO4</b>	Apply different assessment techniques as per the requirement in classrooms.	<b>PO9</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 356A	Pedagogy of Natural Sciences	3	2							3	3	2	2	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1							3							
C O 2					3								3	
C O 3	3													
C O 4											3			
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	
Local	
Regional	
National	Nature and structure of natural science; significance of natural science in the curriculum at the upper primary level.
Global	Study of cognitive growth and learning to the development of understanding and appreciation of science, Aims and objectives of teaching science.
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	
Local	Significance and bases of integration;
Regional	Aims and objectives of teaching integrated science.

National	Disciplinary and integrated approach to teaching;
Global	Levels of disciplinary growth of different natural sciences-descriptive, inductive, causal and formal. Significance and bases of integration;
Employability	Role of observation, experiment, discovery and intuition.
Entrepreneurship	
Skill Development	Aims and objectives of teaching integrated science.
Professional Ethics	Role of observation, experiment, discovery and intuition.
Gender	
Human Values	Significance and bases of integration;
Environment & Sustainability	
<b>Unit III</b>	
Local	Basic considerations in developing and transacting curriculum.
Regional	
National	Basic considerations in developing and transacting curriculum.
Global	Appraisal of existing curricula including innovative curricula in India and abroad.
Employability	Text analysis- text book, workbook and teacher's guide.
Entrepreneurship	
Skill Development	Text analysis- text book, workbook and teacher's guide.
Professional Ethics	Appraisal of existing curricula including innovative curricula in India and abroad.
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	
Local	Evaluation in science; cognitive, psycho-motor and affective aspects.

Regional	
National	Evaluation in science; cognitive, psycho-motor and affective aspects.
Global	Evaluation in science; cognitive, psycho-motor and affective aspects.
Employability	Test construction, analysis and interpretation.
Entrepreneurship	
Skill Development	Test construction, analysis and interpretation
Professional Ethics	Evaluation in science; cognitive, psycho-motor and affective aspects.
Gender	
Human Values	
Environment & Sustainability	
SDG	Quality primary/ Secondary Education for all (SDG4.1) and Skills for Decent Work (SDG 4.4)
NEP 2020	Equitable and Inclusive Education: Learning for All (6.1- 6.20), Arts & culture (22.1-22.15) and Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development, Soft Skills and Employability

<b>SEED358A</b>	<b>PEDAGOGY OF SOCIAL SCIENCE</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Methods and skills in social sciences				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Understand the difference between Social Science and Social Studies as school subject.
- Develop concepts, skills and attitudes through the teaching of Social Study.
- Develop an understanding of pedagogical techniques for the study of Social Science.

### Course Outcomes

On the completion of the course student-teachers will be able to:

**CO1:** Understand the concept and value of Social Sciences as an individual integrated or interdisciplinary area

**CO2:** Develop awareness towards social concerns and social issues.

**CO3:** Acquire the basic knowledge of objectives and skills to be developed by teaching social science

**CO4:** Develop skills of making teaching learning process experiential and joyful

### Catalog Description:

Permeating across boundaries of individual social science disciplines is the key pedagogic process unfolding in this course. This course will help students in understanding how social science inquiry necessarily includes experiences of interaction in and with society and the environment. Critical thinking, inquiry and search for evidence, examining text-based knowledge in social contexts are essential components of studying this course.

### Course Content

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#### Unit I:

**10 Contact Hours**



- Social Science and Social Studies: defining its scope and nature
- Rationale for a social studies programme at the elementary school

**Unit II: 10 Contact Hours**

- Developing concepts, skills and attitudes through the teaching of social studies.
- Understanding change and continuity, cause and effect, time perspective and chronology, empathy, spatial interaction - to be taught through the following
  - (i) Society: personality, social structure, groups, community
  - (ii) Civilization: history, culture
  - (iii) State: authority, citizen
  - (iv) Region: resource, space
  - (v) Market: exchange

**Unit III: 10 Contact Hours**

- Methods and materials: inquiry and evidence-based teaching
  - (i) Identification of problems and questions (themes and issues)
  - (ii) Importance of empirical evidence,
  - (iii) Assessment of example as evidence.
- Teaching Methods: Application of the heuristic/ discovery method in social science;
 

Project –

  - (i) Secondary source,
  - (ii) Field work. Integrating text based knowledge with the social context, personal/experiential knowledge as a base for critical thinking.

**Unit IV 10 Contact Hours**

**Practicum (Any Two)**

- Critique a historical film, serial or a novel from the view point of authenticity.
- An oral history project. Establish its reliability by comparing with data from other sources.
- Map a locality and its position in the city, keeping in mind the distance and directional relationship to your school or college, mark out institutions and points of interest-e.g. Historical Monuments, Reserve Bank, Local Stock Exchange, Parliament House, etc.

- Study the transport related needs of a community, analyse different vehicles people own and use and their reflection on gender and socio-economic groups in society; assess the economic and environmental aspects of various forms of transport used.

### Advanced Readings

1. Servey, R. E. (1967). Social Studies Instruction in the Elementary School, Thomson Press (India) Ltd.: New Delhi.

### Text Book

2. Eklavya. Social Science Textbooks for classes VI, VII and VIII, Eklavya: Bhopal, M.P. Revised Ed,

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Students performance is based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the concept and value of Social Sciences as an individual integrated or interdisciplinary area	PO1
CO2	Develop awareness towards social concerns and social issues.	PO7
CO3	Acquire the basic knowledge of objectives and skills to be developed by teaching social science	PO9
CO4	Develop skills of making teaching learning process experiential and joyful	PO8

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 358A	Pedagogy of social science	3		3				3			2	3		3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O	3
C	3														
O							3							3	
C									3						
O								3							
C															
O															

1=lightly mapped

2= moderately mapped

3=strongly mapped

Unit I	Aims and Objectives of Teaching Social Science
Local	
Regional	

National	
Global	
Employability	
Entrepreneurship	
Skill Development	<p>Listening/viewing and exploring regional music, dance, theatre and puppetry will help student-teachers in contextualizing different art forms and relating them with various concepts across the curriculum.</p> <p>Drama in education; learning is enhanced through drama in education; it enhances communication skills and develop personality and self.</p> <p>Planning a stage-setting for a performance, presentation and participation by the student-teachers in any one of the regional performing art forms keeping integrated approach of all art forms with other subjects is recommended.</p>
Professional Ethics	
Gender	
Human Values	<p>Listening/viewing and exploring regional music, dance, theatre and puppetry will help student-teachers in contextualizing different art forms and relating them with various concepts across the curriculum.</p> <p>Drama in education; learning is enhanced through drama in education; it enhances communication skills and develop personality and self.</p>
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
<b>Unit II</b>	<b>Pedagogical Strategies in Social Science</b>
Local	
Regional	
National	<p>Purpose, Approaches and Strategies teaching- learning processes</p> <p>Inductive, deductive, interdisciplinary and constructivist approaches</p> <p>Narration, Dialogue&amp; Discussion,</p> <p>Problem Solving, Project, Storytelling,</p> <p>Data collection and analysis,</p> <p>Field trips as learning experience,</p> <p>Dramatization, Archives&amp; other historical Sources and their interpretation, reviewing Video Shows on social issues,</p> <p>Comparative method,</p> <p>Concept of Action Research</p> <p>Development of Lesson Plan</p>
Global	
Employability	<p>Purpose, Approaches and Strategies teaching- learning processes</p> <p>Inductive, deductive, interdisciplinary and constructivist approaches</p> <p>Narration, Dialogue&amp; Discussion,</p> <p>Problem Solving, Project, Storytelling,</p> <p>Data collection and analysis,</p> <p>Field trips as learning experience,</p> <p>Dramatization, Archives&amp; other historical Sources and their</p>

	interpretation, reviewing Video Shows on social issues, Comparative method, Concept of Action Research Development of Lesson Plan
Entrepreneurship	
Skill Development	Purpose, Approaches and Strategies teaching- learning processes Inductive, deductive, interdisciplinary and constructivist approaches Narration, Dialogue& Discussion, Problem Solving, Project, Storytelling, Data collection and analysis, Field trips as learning experience, Dramatization, Archives& other historical Sources and their interpretation, reviewing Video Shows on social issues, Comparative method, Concept of Action Research Development of Lesson Plan
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development
<b>Unit III</b>	<b>Resources in Social Science</b>
Local	
Regional	
National	Teaching Learning Material: Need and objectives; collection and preparation ICT in Social Science Classroom Social Science Resource room: Need, Establishment, components and management Social Science Teacher: Nature; Personal ideology and Personality traits Academic and Professional competencies; and as a Reflective Practitioner
Global	
Employability	Teaching Learning Material: Need and objectives; collection and preparation

	<p>ICT in Social Science Classroom</p> <p>Social Science Resource room: Need, Establishment, components and management</p> <p>Social Science Teacher: Nature; Personal ideology and Personality traits</p> <p>Academic and Professional competencies; and as a Reflective Practitioner</p>
Entrepreneurship	
Skill Development	<p>Teaching Learning Material: Need and objectives; collection and preparation</p> <p>ICT in Social Science Classroom</p> <p>Social Science Resource room: Need, Establishment, components and management</p> <p>Social Science Teacher: Nature; Personal ideology and Personality traits</p> <p>Academic and Professional competencies; and as a Reflective Practitioner</p>
Professional Ethics	
Gender	
Human Values	<p>Teaching Learning Material: Need and objectives; collection and preparation</p> <p>ICT in Social Science Classroom</p> <p>Social Science Resource room: Need, Establishment, components and management</p> <p>Social Science Teacher: Nature; Personal ideology and Personality traits</p> <p>Academic and Professional competencies; and as a Reflective Practitioner</p>
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development
<b>Unit IV</b>	Evaluation and Assessment in Social Science
Local	
Regional	
National	Formative assessment: Strategies and tools in Continuous and

	<p>Comprehensive Assessment</p> <p>Summative assessment: Objective and subjective strategies</p> <p>Assessment at different stages: secondary level.</p> <p>Assessment of Social Science as an integrated subject.</p> <p>Achievement Test</p>
Global	
Employability	<p>Formative assessment: Strategies and tools in Continuous and Comprehensive Assessment</p> <p>Summative assessment: Objective and subjective strategies</p> <p>Assessment at different stages: secondary level.</p> <p>Assessment of Social Science as an integrated subject.</p> <p>Achievement Test</p>
Entrepreneurship	
Skill Development	<p>Formative assessment: Strategies and tools in Continuous and Comprehensive Assessment</p> <p>Summative assessment: Objective and subjective strategies</p> <p>Assessment at different stages: secondary level.</p> <p>Assessment of Social Science as an integrated subject.</p> <p>Achievement Test</p>
Professional Ethics	
Gender	
Human Values	<p>Formative assessment: Strategies and tools in Continuous and Comprehensive Assessment</p> <p>Summative assessment: Objective and subjective strategies</p> <p>Assessment at different stages: secondary level.</p> <p>Assessment of Social Science as an integrated subject.</p> <p>Achievement Test</p>
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development

<b>SEED360A</b>	<b>DEVELOPING INSTRUCTIONAL AIDS</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Use of Technology				
<b>Co-requisites</b>	--				

### **Course Objectives**

The course will enable the student-teachers to:

- Understand different types of instructional media and materials and its uses.
- Develop the skill in preparing and using different instructional materials.
- Understand the uses of computer assisted learning strategies.

### **Course Outcomes**

On the completion of the course the student-teachers will be able to:

**CO1:** Use the existing technologies in education and communicate effectively with teachers and others using it

**CO2:** Apply the application software such as excel, PowerPoint and word processing in the teaching.

**CO3:** Design and develop ICT integrated learning resources.

**CO4:** Develop cognizance of critical perspectives of ICT.

**CO5:** Use Technologies to support students' special learning needs.

### **.Catalogue Description**

Effective instructional aids are those items that add value to the learning experience. Use of instructional aids helps to focus the attention of the learner, provides details or clarification and saves the time in explaining difficult or abstract concepts to the students. It is appropriate, even recommended, that the students include a variety of instructional aids in their teaching. The instructional facilitates the teaching task undertaken by the young student-teachers.



## Course Content

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### Suggested Activities

#### Activity 1:

**02 Contact Hours**

**Instructional Media:** Meaning of instructional media, various kinds of Medias and their characteristics and examples, techniques of preparation and using.

#### Activity 2:

**03 Contact Hours**

**Smart Boards:** Techniques and applications of Smart campus/ Smart School/ Smart Boards/ Smart Classroom

#### Activity 3:

**05 Contact Hours**

**Graphics:** Categories of graphics (charts, diagrams, graphs, posters, cartoons, comics) their preparation and uses, display of graphics.

#### Activity 4:

**05 Contact Hours**

**Boards:** Bulletin boards, magnetic boards and their preparation, Instructional functions, planning of and teaching with educational displays on such boards.

#### Activity 5:

**02 Contact Hours**

**Real Things and Mock Ups:** Real things: types–unmodified, modified (models and specimens), their characteristics, techniques of preparation and using.

#### Activity 6:

**03 Contact Hours**

**Power point Presentation:** working with text, animation, smart art, graphics, charts, tables, shapes

#### Activity 7:

**03 Contact Hours**

**Audio-visual Media:** Educational recordings (via radio, tape recorder and CD player), meaning and characteristics of educational recordings, techniques of preparation and using, Television, video, motion pictures (video and films), VCD/DVD), advantages of television

and its use in distance education and in the class room; choosing, using and producing instructional media, media utilization procedures, guidelines for media selection and use.

**Activity 8:**

**03 Contact Hours**

**Computer Assisted Learning:** Use of computers for simulation, computers in drill/practice, computers and educational games, computers and tutorials, computer aided evaluation, advantages and limitations in the use of computers in education, techniques of preparation and using.

**Advanced Readings**

1. Aggarwal, J. C. (2015). Essential of Educational Technology; Vikas Publishing House, New Delhi.
2. Mangal, S. K. and Mangal, U. (2016). Essential of Educational Technology; PHI Learning Pvt. Limited, New Delhi.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Use the existing technologies in education and communicate effectively with teachers and others using it	<b>PO8</b>
<b>CO2</b>	Apply the application software such as excel, PowerPoint and word processing in the teaching.	<b>PO8</b>
<b>CO3</b>	Design and develop ICT integrated learning resources.	<b>PO8</b>
<b>CO4</b>	Develop cognizance of critical perspectives of ICT.	<b>PO3</b>
<b>CO5</b>	Use Technologies to support students’ special learning needs.	<b>PO10</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED360A	Developing Instructional Aids			3	3	3		3					3	3	

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
												1	2	3
C								3				3		
O								3					3	
C								3						
O			3											
C										3				
O										3				
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Activity 1 & 2
Local	Meaning of instructional media, ,
Regional	various kinds of Medias and their characteristics and examples
National	techniques of preparation and using.
Global	<b>Smart Boards:</b> Techniques and applications of Smart campus/ Smart

	School/ Smart Boards/ Smart Classroom
Employability	<b>Smart Boards:</b> Techniques and applications of Smart campus/ Smart School/ Smart Boards/ Smart Classroom
Entrepreneurship	
Skill Development	techniques of preparation and using.
Professional Ethics	techniques of preparation and using.
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Activity 3<sup>rd</sup> &amp; 4<sup>th</sup></b>
Local	
Regional	
National	Categories of graphics (charts, diagrams, graphs, posters, cartoons, comics) their preparation and uses, display of graphics.
Global	Bulletin boards, magnetic boards and their preparation, Instructional functions, planning of and teaching with educational displays on such boards.
Employability	Bulletin boards, magnetic boards and their preparation, Instructional functions, planning of and teaching with educational displays on such boards.
Entrepreneurship	
Skill Development	Categories of graphics (charts, diagrams, graphs, posters, cartoons, comics) their preparation and uses, display of graphics.
Professional Ethics	Bulletin boards, magnetic boards and their preparation, Instructional functions, planning of and teaching with educational displays on such boards.
Gender	
Human Values	
Environment & Sustainability	

Unit III	Activity 5 <sup>th</sup> & 6 <sup>th</sup>
Local	<b>Real Things and Mock Ups:</b> Real things: types–unmodified, modified (models and specimens), their characteristics, techniques of preparation and using.  <b>Power point Presentation:</b> working with text, animation, smart art, graphics, charts, tables, shapes
Regional	
National	Real things: types–unmodified, modified (models and specimens), their characteristics, techniques of preparation and using.
Global	
Employability	Real things: types–unmodified, modified (models and specimens), their characteristics, techniques of preparation and using.
Entrepreneurship	
Skill Development	<b>Power point Presentation:</b> working with text, animation, smart art, graphics, charts, tables, shapes
Professional Ethics	Real things: types–unmodified, modified (models and specimens), their characteristics, techniques of preparation and using.
Gender	
Human Values	
Environment & Sustainability	
Unit IV	Activity 7 <sup>th</sup> & 9 <sup>th</sup>
Local	<b>Computer Assisted Learning:</b> Use of computers for simulation, computers in drill/practice, computers and educational games, computers and tutorials, computer aided evaluation, advantages and limitations in the use of computers in education, techniques of preparation and using.
Regional	advantages and limitations in the use of computers in education, techniques of preparation and using.
National	<b>Audio-visual Media:</b> Educational recordings (via radio, tape recorder and

	CD player), meaning and characteristics of educational recordings, techniques of preparation and using, Television, video, motion pictures (video and films), VCD/DVD), advantages of television and its use in distance education and in the class room; choosing, using and producing instructional media, media utilization procedures, guidelines for media selection and use
Global	Educational recordings (via radio, tape recorder and CD player), meaning and characteristics of educational recordings, techniques of preparation and using, Television, video, motion pictures (video and films), VCD/DVD),
Employability	advantages of television and its use in distance education and in the class room; choosing, using and producing instructional media, media utilization procedures, guidelines for media selection and use.  Use of computers for simulation, computers in drill/practice, computers and educational games, computers and tutorials, computer aided evaluation
Entrepreneurship	
Skill Development	Educational recordings (via radio, tape recorder and CD player), meaning and characteristics of educational recordings, techniques of preparation and using, Television, video, motion pictures (video and films), VCD/DVD),
Professional Ethics	Use of computers for simulation, computers in drill/practice, computers and educational games, computers and tutorials, computer aided evaluation  advantages and limitations in the use of computers in education, techniques of preparation and using.  using and producing instructional media, media utilization procedures, guidelines for media selection and use.
Gender	
Human Values	
Environment & Sustainability	
SDG	Sustainable Development
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development

<b>SEED362A</b>	<b>SCHOOL ENGAGEMENT II</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Observation and Analytical Skills				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Interact with elementary school children.
- Explore creative ways of organizing awareness programmes for children.
- Prepare report on various school-community connect activities.
- Reflect upon their experiences.

### Course Outcomes

On the completion of the course, student-teachers will be able to:

**CO1** Experiment different developmental activities in the school campus.

**CO2** Associate themselves with school engagement activities.

### Catalogue Description

The School Engagement II Programme shall be carried out during the sixth semester in local/nearby school or schools. For this, the student may be placed in regional language medium schools; and the rest may be placed in Government, Private, Urban, Rural and Schools for challenged learners.

A student teacher needs to visit at least two types of schools: in the first week to one type of school; and in the second week to another type of school. A brief orientation programme can be arranged before sending the student-teachers to schools to acquaint them with the objectives and modalities of such programme. During this programme, the student-teachers will undertake the different activities in different schools, ensuring maximum participation of the students in all the activities.

Student-teachers will undertake the following activities and prepare a report of the same.

### Course Content

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#### Suggested Activities

##### Activity 1

**05 Contact Hours**

*Beti Bachao and Beti Padhao* (Awareness Programme and NGO associated camps).

**Activity 2:** **05 Contact Hours**

Health education (Awareness sessions on health & hygiene; healthy habits; nutritious food habits).

**Activity 3:** **05 Contact Hours**

Save water (Water harvesting programmes; awareness sessions on save water; Tips for effective use of water).

**Activity 4:** **05 Contact Hours**

Interaction with village Panchayat/family members to learn their life style, beliefs, customs & traditions.

**Activity 5:** **05 Contact Hours**

Feedback from village members.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
<b>Weightage (%)</b>	<b>50</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Experiment different developmental activities in the school campus.	<b>PO3</b>
<b>CO2</b>	Associate themselves with school engagement activities.	<b>PO5</b>



		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEED362A	SCHOOL ENGAGEMENT II			3		3							3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
1	2	3	4	5	6	7	8	9	10	11	1	2	3	
C			3									3		
O					3								3	
1														
2														

1=lightly mapped

2= moderately mapped

3=strongly mapped

Unit I	Activity 1 Beti Bachao and Beti Padhao (Awareness Programme and NGO associated camps)
Local	Beti Bachao and Beti Padhao (Awareness Programme and NGO associated camps)
Regional	
National	
Global	
Employability	Beti Bachao and Beti Padhao (Awareness Programme and NGO associated

	camps)
Entrepreneurship	
Skill Development	
Professional Ethics	Beti Bachao and Beti Padhao (Awareness Programme and NGO associated camps)
Gender	
Human Values	
Environment & Sustainability	
Unit II	Activity 2: Health education (Awareness sessions on health & hygiene; healthy habits; nutritious food habits).
Local	
Regional	
National	
Global	
Employability	Health education (Awareness sessions on health & hygiene; healthy habits; nutritious food habits).
Entrepreneurship	
Skill Development	Health education (Awareness sessions on health & hygiene; healthy habits; nutritious food habits).
Professional Ethics	Health education (Awareness sessions on health & hygiene; healthy habits; nutritious food habits).
Gender	
Human Values	
Environment & Sustainability	
Unit III	Activity 3: Save water (Water harvesting programmes; awareness sessions on save water; Tips for effective use of water)
Local	
Regional	
National	

Global	
Employability	Save water (Water harvesting programmes; awareness sessions on save water; Tips for effective use of water
Entrepreneurship	
Skill Development	
Professional Ethics	Save water (Water harvesting programmes; awareness sessions on save water; Tips for effective use of water
Gender	
Human Values	
Environment & Sustainability	
Unit IV	Activity 4: Interaction with village Panchayat/family members to learn their life style, beliefs, customs & traditions. Activity 5: Feedback from village members.
Local	Feedback from village members.
Regional	
National	
Global	
Employability	Feedback from village members. Interaction with village Panchayat/family members to learn their life style, beliefs, customs & traditions.
Entrepreneurship	
Skill Development	
Professional Ethics	Feedback from village members. Interaction with village Panchayat/family members to learn their life style, beliefs, customs & traditions.
Gender	
Human Values	

Environment & Sustainability	
SDG	Professional Development of Teachers (SDG 4.c)
NEP 2020	Technical Skills that match Industry Needs Updated Curriculum Focus on Employability Skills (Local/Regional and Global) Internship Programs Consulting Field Projects Team Work On-Campus/Online Jobs Simulations
POE/4 <sup>th</sup> IR	Internship: Students will perform activities during internship in nearby govt and private schools affiliated to HBSE & CBSE

**\*LIBERAL COURSE (OPTIONAL IV)**

<b>SEED364A</b>	<b>ENGLISH IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Expression of Thoughts				
<b>Co-requisites</b>	--				

### **Course Objectives**

The course will enable the student-teachers to:

- Explain the distinctive characteristics of the drama.
- Identify and differentiate between such forms of drama as tragedy, comedy, satire, and tragic comedy.
- Develop the ability to interpret in dramatic literature such elements as character, action, theme, symbolism, irony, staging, and structure.

### **Course Outcomes**

On the completion of this course student-teachers will be able to:

**CO1.** Classify various literary features of Drama in a given literature.

**CO2.** Interpret various elements of drama literature with wide range of famous works.

**CO3.** Recognize and appreciate the Drama as a literary art form.

### **Catalogue Description**

This course introduces students to dramatic literature and its cultural, social, and historical influences. It includes terminology and methods for analysing and evaluating drama including form, thematic development, and style. It contains selected works of different writers which will introduce the students to various genres of dramas.

### **Course Content**

#### **Unit I**

**10 Contact Hours**

- Dramatic Types: Tragedy and Comedy
- Tragi-comedy
- Farce and Melodrama
- The Masque
- The One-Act Play
- The Dramatic Monologue (Characteristics, structure and elements)

## **Unit II**

**10 Contact Hours**

### **Dramatic Devices**

- Dramatic Irony
- Soliloquy and Aside
- Expectation and Surprise
- Stage Directions
- Prologue
- Epilogue (Characteristics and Structure)

## **Unit III**

**10 Contact Hours**

Origin of Indian and English Drama and Theatre: Developments and Movements (A Brief History)

## **Unit IV**

**10 Contact Hours**

- Girish Karnad: Nagmandala
- William Shakespeare: Hamlet

### **Advanced Readings**

1. Abrahams, M.H. (2011). *A Glossary of Literary Terms*. Wadsworth Publishing, California.
2. Iyengar, K.R.Srinivasa. (2012). *Indian Writing in English*. Sterling Publishers.
3. Karnad, G. *Three Plays, Naga-Mandala, Hayavadana, Tughlaq*. O.U.P, Oxford.
4. Rees, R. J. (1973). *English Literature: An Introduction for Foreign Readers*. Macmillan, London.
5. Seturaman, V.S and Indra, C.T. (1990). *Practical Criticism*. Macmillan, Madras.

6. Shakespeare, W. (1996). Hamlet. In T. J. Spencer (Ed.), The New Penguin Shakespeare. *Penguin Books, London.*

7. William, J. Long (2012). English Literature Paperback. *Maple Press.*

**Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Students performance is based on continuous evaluation**

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term-Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Classify various literary features of Drama in a given literature.	<b>PO2</b>
<b>CO2</b>	Interpret various elements of drama literature with wide range of famous works.	<b>PO9</b>
<b>CO3</b>	Recognize and appreciate the Drama as a literary art form.	<b>PO4</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED364A	English IV		3		3					3			3		

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
C		3										3		
O									3					
C				3										
O														
O														

1=lightly mapped

2= moderately mapped

3=strongly mapped

Unit I	
Local	Dramatic Types: Tragedy and Comedy
Regional	Tragi-comedy The Dramatic Monologue (Characteristics, structure and elements)



National	Tragi-comedy The One-Act Play The Dramatic Monologue (Characteristics, structure and elements)
Global	Tragi-comedy Farce and Melodrama The Masque The One-Act Play
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	DRAMATIC DEVICES
Local	Dramatic Irony
Regional	
National	
Global	
Employability	Dramatic Irony Soliloquy and Aside  Prologue  Epilogue (Characteristics and Structure)
Entrepreneurship	
Skill Development	Dramatic Irony Soliloquy and Aside  Prologue  Epilogue (Characteristics and Structure)
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit III	
Local	Origin of Indian and English Drama and Theatre: Developments and Movements (A Brief History)
Regional	Origin of Indian Drama and Theatre

National	Origin of Indian Drama and Theatre
Global	Origin of English Drama and Theatre
Employability	Origin of Indian and English Drama and Theatre: Developments and Movements (A Brief History)
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	
Local	Girish Karnad: Nagmandala
Regional	
National	
Global	William Shakespeare: Hamlet
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	Quality primary/ Secondary Education for all Inclusive Learning Environments Professional Development of Teachers
NEP 2020	Foundational Literacy, Curriculum and Pedagogy in Schools, Teachers, Towards a More Holistic and Multidisciplinary Education Teacher Education Promoting High-quality research Promotion of Indian Languages Technology Use & Integration Online and Digital Education
POE/4 <sup>th</sup> IR	Cross cultural programmes Global Education Knowledge Updated Curriculum Consulting Field Proje Team Wor Simulations Mentoring by Alumni

<b>SEED366A</b>	<b>Hindi IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic Knowledge of Hindi Bhasha and Literature				
<b>Co-requisites</b>	--				

### Course Objectives

#### इस पाठ्यक्रम का उद्देश्य है,

- विद्यार्थियों को विमर्शों के उद्भव एवं उसके सैद्धांतिक पक्ष का आज के साहित्य में विलय से परिचित करवाना।
- दलित विमर्श की प्रतिनिधि रचनाओं का अध्ययन करना।
- स्त्री विमर्श का साहित्य में स्थान एवं उसका अध्ययन करना।
- हिंदी साहित्य में स्त्री और दलित विमर्श का आलोचनात्मक अध्ययन करना।

### Course Outcomes

इस कोर्स के पूरा होने के परिणामतः छात्र निम्नलिखित ज्ञान प्राप्त कर पाएंगे:

**CO1:** प्रस्तुत पाठ्यक्रम के अध्ययन के पश्चात विद्यार्थी अपने शैक्षिक कैरियर में समुचित तरीके से हिंदी साहित्य के नए विधा वैमर्शिकी से परिचित हो पाएंगे।

**CO2:** साहित्य में विमर्श विधा के उद्भव के कारणों एवं सिद्धांतों की समीक्षा कर पाएंगे। जो सामाजिक जीवन के एक अलग पहलु का विवेचन करने में उनका मार्गदर्शन कर सकता है।

**CO3:** सामाजिक जीवन में स्त्री का स्थान एवं साहित्य में उसकी सृजना की समुचित विवेचना कर सकने में विद्यार्थी समर्थ हो सकेंगे।

**CO4:** साहित्य अध्ययन के पश्चात व्यक्ति की विचार शक्ति, सम्प्रेषण शैली और साथ ही साथ शिक्षण विधि परिष्कृत हो जाती है। वह जीवन को समझने में मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान बनता है।

### Catalog Description

साहित्य की सत्ता मूलतः अखण्ड और अविच्छेद्य सत्ता है। वह जीवन और जीवनेतर सब कुछ को अपने दायरे में समाहित कर लेता है। इसीलिए उसे किसी स्थिर सैद्धांतिकी की सीमा में बाँधना प्रायः असंभव रहा है। साहित्य को देखने के लिए नजरिये भिन्न-भिन्न हो सकते हैं, जो हमारी जीवन-दृष्टि पर निर्भर करते हैं। एक ही कृति को देखने-पढ़ने की कई दृष्टियाँ हो सकती हैं। उनके बीच से रचना की समझ को विकसित करने के प्रयास लगभग साहित्य-सृजन की शुरूआत के साथ ही हो गए थे।

आज का दौर भूमण्डलीकरण और उसे वैचारिक आधार देने वाले उत्तर आधुनिक विमर्श और मीडिया की विस्मयकारी प्रगति का दौर है। सी दौर में नस्लवादी आलोचना, नारी विमर्श, दलित विमर्श, आदिवासी विमर्श, सांस्कृतिक-ऐतिहासिक बोध जैसी विविध विमर्श धाराएँ विकसित हुईं। केन्द्र के परे जाकर परिधि को लेकर नवविमर्श की जद्दोजहद होने लगी। ऐसे समय में मनुष्य और साहित्य की फिर से बहाली पर भी बल दिया जाने लगा। पिछले दो-तीन दशकों में एक साथ बहुत से विमर्शों ने साहित्य, संस्कृति और कुल मिलाकर कहीं तो समूचे चिंतन जगत् को मथा है। हिन्दी साहित्य में हाल के दशकों में उभरे प्रमुख विमर्शों में स्त्री विमर्श, दलित विमर्श, आदिवासी विमर्श, वैश्वीकरण, बहुसांस्कृतिकतावाद आदि को देखा जा सकता है। ये विमर्श साहित्य को देखने की नई दृष्टि देते हैं, वहीं इनका जैविक रूपायन रचनाओं में भी हो रहा है।

दलित- विमर्श के शुरूआती चरण बुद्ध की वाणी में दिखाई देते हैं, जो निरंतर पालि, प्राकृत, अपभ्रंश जैसी जनभाषाओं से आगे बढ़ते हुए आधुनिक भारतीय भाषाओं के आरंभिक और मध्यकालीन काव्य में विस्तार लेते चले गए। विशेषतः मध्ययुगीन संत काव्य में इसकी मुखर अभिव्यक्ति हुई है, जिसने भारतीय समाज को गहरे आंदोलित भी किया। आधुनिक पुनर्जागरण के दौर में दलित चिंता का स्वर पुनः उभरा जो राष्ट्रीय आंदोलन को एक नया आयाम दे रहा था। इसी की सफल परिणति के रूप में ज्योतिराव फुले,

डा. अम्बेडकर जैसे व्यक्तित्व सामने आए, जो न केवल दलित विमर्श को नई जमीन देते हैं, वरन् खुद भी जमीनी नेतृत्वकर्ता के रूप में परिवर्तन की दस्तक देते हैं।

वस्तुतः स्त्री- विमर्श सहज एवं बौद्धिक विमर्श नहीं है, यह सामाजिक परिवर्तन का माध्यम है। यह इस बात की ओर तीखा संकेत करता है कि यह दुनिया स्त्री के लिए शायद नहीं बनी है और अब स्त्री इसे फिर से बनाना चाहती है। यह विमर्श स्त्री सहित समूची मानवजाति की स्वतंत्रता का पक्षधर है। कई दशकों पहले महादेवी वर्मा ने भी इस ओर महत्वपूर्ण संकेत किया था। स्त्री- विमर्श को प्रायः प्रतिशोध-पीडित रूप में देखा जाता रहा है, जबकि वह ऐसा है नहीं। यह स्वयं मानवियों द्वारा अधिकार और न्याय के लिए उठाई गई स्वाभाविक आवाज है। इसी तरह यह अपने मूलार्थ में पुरुष बनने का समर्थक आंदोलन भी नहीं है। बकौल अनामिका, “ब्रा-बर्निंग आदि एकाध आवेशमूलक घटनाओं के साक्ष्य से यह नहीं समझना चाहिए कि ये स्त्रियाँ अपनी विशिष्ट दैहिक, मानसिक और भाषिक संरचना पर गर्व नहीं करतीं। जो प्राकृतिक विशिष्टताएँ हैं, शर्मनाक वे नहीं, शर्मनाक आरोपित सामाजिक मानदंड हैं, जो दोहरे हैं और जिन पर पुनर्विचार होना ही चाहिए, ताकि विकास के अवसर सबको समान मिल सकें। इसी तरह यह आंदोलन ‘पितृसत्तात्मक समाज में पल रहे स्त्री संबंधी पूर्वाग्रहों’ जैसे-स्त्री को हीनतर और भोग का साधन मात्र मानने के खिलाफ है। इसका एक और वैशिष्ट्य इस बात में है कि यह सार्वभौम भगिनीवाद (यूनिवर्सल सिस्टरहुड) के मूलमंत्र को हर स्तर, हर वर्ग, हर नस्ल, हर देश तक पहुँचाने के लिए प्रयत्नशील है। यदि यह कहीं आक्रामक हुआ है तो उसके पीछे शताब्दियों की सामाजिक जकड़न से मुक्ति की तीखी छटपटाहट कारण रही है।

## Course Content

<b>Unit I:</b>		<b>17 Contact</b>
	<b>Hours</b>	
<b>विमर्शों की सैद्धांतिकी</b>		
<ul style="list-style-type: none"> <li>• स्त्री विमर्श : अवधारणा और मुक्ति आंदोलन</li> <li>• दलित विमर्श : अवधारणा और आंदोलन ( फूले और अम्बेडकर)</li> </ul>		
<b>Unit II:</b>		<b>16 Contact</b>
	<b>Hours</b>	
<b>दलित विमर्श प्रतिनिधि रचनाएँ</b>		
<ul style="list-style-type: none"> <li>• जूठन : (आत्मकथा) ओम प्रकाश वाल्मीकि</li> <li>• तड़प मुक्ति की : (नाटक) माता प्रसाद</li> </ul>		
<b>Unit III:</b>		<b>12 Contact</b>
	<b>Hours</b>	
<b>स्त्री विमर्श की प्रतिनिधि रचनाएँ</b>		
<ul style="list-style-type: none"> <li>• कहानी : चर्चित दलित महिला कथाकारों की कहानियाँ : डॉ. कुसुम वियोगी</li> </ul>		
<b>Unit IV:</b>		<b>12 Contact</b>
	<b>Hours</b>	
<b>हिंदी साहित्य में स्त्री और दलित विमर्श</b>		
<ul style="list-style-type: none"> <li>• स्त्री और दलित विमर्श में हिंदी साहित्य की पत्रिकाओं का योगदान</li> <li>• स्त्री और दलित विमर्श दशा और दिशा</li> </ul>		

## Suggested Text Books

5. जूठन : ओम प्रकाश वाल्मीकि राधा कृष्ण प्रकाशन
6. तड़प मुक्ति की : माता प्रसाद : सम्यक प्रकाशन 32 /3 पश्चिम पूरी नई दिल्ली

**Advanced Readings:**

1. चर्चित दलित महिला कथाकारों की कहानियां: डॉ. कुसुम वियोगी , गौतम प्रकाशन 30/ 64 गली न. 08 , विश्वास नगर, शाहदरा दिल्ली 110032
2. हिंदी साहित्य का इतिहास - आचार्य रामचंद्र शुक्ल, राजकमल प्रकाशन
3. हिंदी साहित्य का इतिहास - डॉ. नगेन्द्र, राजकमल प्रकाशन

**Modes of Evaluation:** Quiz/Assignment/ presentation/ extempore/ Written Examination/ Attendance

**Examination Scheme:**

Components	Attendance	Mid Term Exam	Presentation/ Assignment/	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)****Mapping between COs and Pos**

	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	प्रस्तुत पाठ्यक्रम के अध्ययन के पश्चात विद्यार्थी अपने शैक्षिक कैरियर में समुचित तरीके से हिंदी साहित्य के नए विधा वैमर्शिकी से परिचित हो पाएंगे।	PO5
CO2	साहित्य में विमर्श विधा के उद्भव के कारणों एवं सिद्धांतों की समीक्षा कर पाएंगे। जो सामाजिक जीवन के एक अलग पहलु का विवेचन करने में उनका मार्गदर्शन कर सकता है।	PO6
CO3	सामाजिक जीवन में स्त्री का स्थान एवं साहित्य में उसकी सृजना की समुचित विवेचना कर सकने में विद्यार्थी समर्थ हो सकेंगे।	PO7
CO4	साहित्य अध्ययन के पश्चात् व्यक्ति की विचार शक्ति, सम्प्रेषण शैली और साथ ही साथ शिक्षण विधि परिष्कृत हो जाती है। वह जीवन को समझने में मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान बनता है।	PO10

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self-Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research and Entrepreneurial Skills</b>
<b>Course Code</b>	<b>Course Title</b>	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 366A	Hindi IV	3	2	3	2	3	3	2			2		2	3	2

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1					3							2		2
C O 2						3							3	
C O 3							3							
C O 4										3				
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	विमर्शों की सैद्धांतिकी
Local	स्त्री विमर्श : अवधारणा और मुक्ति आंदोलन
Regional	
National	स्त्री विमर्श : अवधारणा और मुक्ति आंदोलन
Global	
Employability	पत्रकारिता
Entrepreneurship	
Skill Development	विचार शक्ति,
Professional Ethics	
Gender	
Human Values	सहानुभूति और दया
Environment & Sustainability	
Unit II	दलित विमर्श प्रतिनिधि रचनाएँ
Local	जूठन : (आत्मकथा) ओम प्रकाश वाल्मीकि
Regional	
National	तड़प मुक्ति की : (नाटक) माता प्रसाद
Global	
Employability	साहित्य-सृजन
Entrepreneurship	लेखन और संपादक

Skill Development	सम्प्रेषण शैली
Professional Ethics	
Gender	
Human Values	मानवीय संवेदनाओं से परिपूर्ण एक सुलझा हुआ इंसान
Environment & Sustainability	
Unit III	स्त्री विमर्श की प्रतिनिधि रचनाएँ
Local	कहानी : चर्चित दलित महिला कथाकारों की कहानियाँ : डॉ. कुसुम वियोगी
Regional	
National	
Global	
Employability	उपन्यासकार, कहानी लेखक
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	अनुशासन और संवेदनशीलता
Environment & Sustainability	
Unit IV	हिंदी साहित्य में स्त्री और दलित विमर्श
Local	स्त्री और दलित विमर्श में हिंदी साहित्य की पत्रिकाओं का योगदान
Regional	
National	स्त्री और दलित विमर्श दशा और दिशा
Global	
Employability	साहित्यिक एजेंसी और पुस्तकालय
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	समाजिक समर्थन
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability



<b>SEED368A</b>	<b>CHINESE- IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of Mathematics				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- To read more number of Chinese lessons
- Have an idea of the Chinese social, cultural, linguistic system

### Course Outcomes

On the completion of this course the student-teachers will be able to:

**CO 1** Help the students to do self-introduction.

**CO 2** Writing sentences and texts through dictation.

**CO 3** Learn about China's Chinese social, cultural, linguistic system.

**CO4** Translation of simple Chinese stories and Texts in English and vice-versa

### Catalogue Description

This course aims to equip students with a comprehensive understanding of the Chinese language, culture, and society. Through a structured approach, students will delve into various aspects of the Chinese language, including vocabulary acquisition, linguistic structures, and comprehension skills. Additionally, the course will explore the social and cultural context of China, providing insights into Chinese traditions, values, and gender dynamics.

### Course Content

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#### Unit I:

**20 Contact Hours**

#### More number of Chinese lessons

- Learning new words of a foreign language i.e., Chinese
- Development of much richer Chinese Vocabulary
- Gendered vocabularies in Chinese

**Unit II:****10 Contact Hours****Learn about Chinese social, cultural, linguistic system**

- Knowledge of the linguistic system of a foreign language and social and cultural background.
- Ability to perceive China as a country through linguistic knowledge
- Gender awareness through Chinese texts
- Instillation of moral and value system through texts
- Knowledge of the linguistic system of a foreign language and social and cultural background.

**Unit III:****10 Contact Hours****Writing sentences and texts through dictation**

- Comprehension ability of a foreign language
- Scripting in Chinese-English (vice-versa)
- Script down Chinese characters only by listening to the phonetic format

**Unit IV:****10 Contact Hours****Translation of simple Chinese stories and Texts in English and vice-versa**

- Translation ability into a foreign language
- Translation assignments
- Translation ability for Chinese-English translation of simple texts

**Suggested Readings**

- Integrated Chinese" series by Tao-chung Yao, Yuehua Liu, Nyan-Ping Bi, Liangyan Ge, and Yaohua Shi
- "The Routledge Course in Modern Mandarin Chinese" by Claudia Ross and Baozhang He
- "Chinese Link: Beginning Chinese" by Sue-mei Wu, Yueming Yu, Yanhui Zhang, Weizhong Tian
- "Chinese Society: Change, Conflict and Resistance" by Elizabeth J. Perry and Mark Selden
- "China: A Cultural, Social, and Political History" by Patricia Buckley Ebrey
- "Gender in Modern East Asia" edited by Barbara Molony and Kathleen Uno
- "Chinese Literature: A Very Short Introduction" by Sabina Knight
- "Chinese Characters: Profiles of Fast-Changing Lives in a Fast-Changing Land" by Angilee Shah and Jeffrey Wasserstrom

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 227A	Chinese-I		3	3	3		2							3	2

Programme and Course Mapping															
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CO1		3				2									3
CO2			3										2		
CO3				3											
CO4															
1=lightly mapped                      2= moderately mapped                      3=strongly mapped															

Unit I	More number of Chinese lessons
Local	
Regional	
National	
Global	Learning new words of a foreign language i.e., Chinese
Employability	
Entrepreneurship	

Skill Development	Development of much richer Chinese Vocabulary
Professional Ethics	
Gender	Gendered vocabularies in Chinese
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Learn about Chinese social, cultural, linguistic system</b>
Local	
Regional	
National	
Global	Knowledge of the linguistic system of a foreign language and social and cultural background.
Employability	
Entrepreneurship	
Skill Development	Ability to perceive China as a country through linguistic knowledge
Professional Ethics	
Gender	Gender awareness through Chinese texts
Human Values	Instillation of moral and value system through texts
Environment & Sustainability	Knowledge of the linguistic system of a foreign language and social and cultural background.
<b>Unit III</b>	<b>Writing sentences and texts through dictation</b>
Local	
Regional	
National	
Global	Comprehension ability of a foreign language
Employability	Scripting in Chinese-English (vice-versa)
Entrepreneurship	
Skill Development	Script down Chinese characters only by listening to the phonetic format
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Translation of simple Chinese stories and Texts in English and vice-versa</b>
Local	
Regional	

National	
Global	Translation ability into a foreign language
Employability	Translation assignments
Entrepreneurship	
Skill Development	Translation ability for Chinese-English translation of simple texts
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	4,5, 8, 17
NEP 2020	
POE/4 <sup>th</sup> IR	

<b>SEED370A</b>	<b>MATHEMATICS IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of Mathematics				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- Apply integrals to find the area enclosed by these curves.
- Use probability as a measure of uncertainty of events.
- Apply correlation and regression analysis in real-world situations.
- Apply the systems of linear inequalities to solve some real life problems.

### Course Outcomes

On the completion of this course the student-teachers will be able to:

**CO 1** Learn specific applications of integrals to find the area under simple curves

**CO 2** Learn how probability is used as a measure of uncertainty of events in a random experiment

**CO 3** Learn concepts of conditional probability, Bayes' theorem, random variable and its probability distribution

**CO 4** Learn correlation and regression analysis based on multivariate distribution

**CO 5** Learn to apply the systems of linear inequalities and equations to solve some real life problems.

### Catalog Description

Elementary geometry is inadequate for calculating the areas enclosed by curves. Applications of integrals are used to find the area enclosed by these curves. In this course, students shall study some specific applications of integrals to find the area under simple curves. Further, students shall learn how probability is used as a measure of uncertainty of events in a random experiment. They shall also learn concepts of conditional probability, Bayes' theorem, random variable and its probability distribution. In addition, students shall learn correlation and regression analysis based on multivariate distribution. Many applications in mathematics involve systems of inequalities and equations. Students shall learn to apply the systems of linear inequalities and equations to solve some real life problems.

### Course Content

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**Unit I:**

**20 Contact Hours**

**Integrals**

- Integration as an Inverse Process of Differentiation
- Methods of Integration
- Integrals of some Particular Functions
- Integration by Partial Fractions
- Integration by Parts
- Definite Integral
- Fundamental Theorem of Calculus

**Unit II:**

**10 Contact Hours**

**Probability**

- Random Experiments
- Event
- Axiomatic Approach to Probability
- Conditional Probability
- Multiplication Theorem on Probability
- Independent Events
- Bayes' Theorem

**Unit III:**

**10 Contact Hours**

**Statistics: Correlation and Regression**

- Significance of Measuring Correlation
- Types of Correlations
- Methods of Correlation Analysis
- Advantages of Regression Analysis
- Types of Regression Models
- Simple Linear Regression Model

**Unit IV:**

**10 Contact Hours**

**Linear Programming**

- Mathematical Formulation of the Linear Programming problem
- Graphical method of solving linear programming problems
- Different Types of Linear Programming Problems

### Advanced Readings:

1. Gupta, C. B. (2012). Optimization Techniques in Operation Research, I. K. International Publishing House Pvt. Ltd; 2<sup>nd</sup> Revised Edition.
2. John, F. Freund (1996). Modern Elementary Statistics, Pearson; 9 Edition.
3. Kolman (2012). Elementary Linear Programming with Applications, Elsevier; Second Edition.
4. Mario, F. Triola (1997). Elementary Statistics, Pearson; 7 Edition.
5. Mishra, Sanjay (2017). Fundamental of Mathematics: Integral Calculus, Pearson Education, Second Edition
6. Narayan, Shanti and Mittal, P. K. (2005). Integral Calculus, S. Chand; 35<sup>th</sup> Revised Edition.
7. Rohatgi, Vijay K. and Saleh, A. K. Md. Ehsanes (2008). An Introduction to Probability and Statistics, Wiley, Second Edition.
8. Ross, Sheldon (2019). A First Course in Probability, Pearson Education; Ninth Edition.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Students performance is based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Presentation	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**



Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Learn specific applications of integrals to find the area under simple curves	<b>PO1</b>
<b>CO2</b>	Learn how probability is used as a measure of uncertainty of events in a random experiment	<b>PO3</b>
<b>CO3</b>	Learn concepts of conditional probability, Bayes' theorem, random variable and its probability distribution	<b>PO5</b>
<b>CO4</b>	Learn correlation and regression analysis based on multivariate distribution	<b>PO7</b>
<b>CO5</b>	Learn to apply the systems of linear inequalities and equations to solve some real life problems	<b>PO10</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self Development and Community Attachment	S Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PSO 1	PSO 2	PSO 3
SEE D 370A	Mathematics IV	2		3		2		3			2				

1= lightly mapped

2= moderately mapped

3=strongly mapped

C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	2													
C O 2			3											
C O 3					2									
C O 4							3							
C O 5										2				
	1=lightly mapped				2= moderately mapped				3=strongly mapped					

Unit I	Integrals
Local	<ul style="list-style-type: none"> <li>• Integration as an Inverse Process of Differentiation</li> <li>• Methods of Integration</li> <li>• Integrals of some Particular Functions</li> <li>• Integration by Partial Fractions</li> <li>• Integration by Parts</li> <li>• Definite Integral</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Integration as an Inverse Process of Differentiation</li> <li>• Methods of Integration</li> <li>• Integrals of some Particular Functions</li> <li>• Integration by Partial Fractions</li> <li>• Integration by Parts</li> <li>• Definite Integral</li> </ul>
National	<ul style="list-style-type: none"> <li>• Integration as an Inverse Process of Differentiation</li> <li>• Methods of Integration</li> <li>• Integrals of some Particular Functions</li> <li>• Integration by Partial Fractions</li> <li>• Integration by Parts</li> <li>• Definite Integral</li> <li>• Fundamental Theorem of Calculus</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Definite Integral</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Methods of Integration</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Methods of Integration</li> </ul>

Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Probability</b>
Local	<ul style="list-style-type: none"> <li>• Random Experiments</li> <li>• Event</li> <li>• Axiomatic Approach to Probability</li> <li>• Conditional Probability</li> <li>• Multiplication Theorem on Probability</li> <li>• Independent Events</li> <li>• Bayes' Theorem</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Random Experiments</li> <li>• Event</li> <li>• Axiomatic Approach to Probability</li> <li>• Conditional Probability</li> <li>• Multiplication Theorem on Probability</li> <li>• Independent Events</li> </ul>
National	<ul style="list-style-type: none"> <li>• Random Experiments</li> <li>• Event</li> <li>• Axiomatic Approach to Probability</li> <li>• Conditional Probability</li> <li>• Multiplication Theorem on Probability</li> <li>• Independent Events</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Axiomatic Approach to Probability</li> </ul>
Employability	
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Axiomatic Approach to Probability</li> </ul>
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Statistics: Correlation and Regression</b>
Local	<ul style="list-style-type: none"> <li>• Significance of Measuring Correlation</li> <li>• Types of Correlations</li> <li>• Methods of Correlation Analysis</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Significance of Measuring Correlation</li> <li>• Types of Correlations</li> <li>• Methods of Correlation Analysis</li> </ul>
National	<ul style="list-style-type: none"> <li>• Significance of Measuring Correlation</li> <li>• Types of Correlations</li> <li>• Methods of Correlation Analysis</li> <li>• Advantages of Regression Analysis</li> <li>• Types of Regression Models</li> <li>• Simple Linear Regression Model</li> </ul>

Global	<ul style="list-style-type: none"> <li>• Types of Correlations</li> <li>• Methods of Correlation Analysis</li> <li>• Advantages of Regression Analysis</li> <li>• Types of Regression Models</li> </ul>
Employability	
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Methods of Correlation Analysis</li> </ul>
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Linear Programming</b>
Local	<ul style="list-style-type: none"> <li>• Mathematical Formulation of the Linear Programming problem</li> </ul>
Regional	<ul style="list-style-type: none"> <li>• Mathematical Formulation of the Linear Programming problem</li> <li>• Graphical method of solving linear programming problems</li> </ul>
National	<ul style="list-style-type: none"> <li>• Mathematical Formulation of the Linear Programming problem</li> <li>• Graphical method of solving linear programming problems</li> <li>• Different Types of Linear Programming Problems</li> </ul>
Global	<ul style="list-style-type: none"> <li>• Graphical method of solving linear programming problems</li> </ul>
Employability	<ul style="list-style-type: none"> <li>• Mathematical Formulation of the Linear Programming problem</li> </ul>
Entrepreneurship	
Skill Development	<ul style="list-style-type: none"> <li>• Different Types of Linear Programming Problems</li> </ul>
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED372A</b>	<b>Physics IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding of Physics and its concepts				
<b>Co-requisites</b>	--				

### Course Overview

This course deals with the very essential characteristics of light and its associated phenomenon. The students will be introduced to the concepts of wave nature of light and phenomenon of interference, diffraction and polarization depicting the wave nature. It will also cover the significant topic of evolution of universe. The study of Physics IV involves the study of basic concepts in Wave Optics-Interference of Light, Diffraction and Polarization, Laser and Universe

### Course Objectives

The course will enable the student-teachers to –

- Understand the wave nature of light and its associated phenomenon.
- Acquaint with the principles of LASER and its types.
- Have some understanding of the origin and evolution of universe.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

CO1 Comprehend the principles of wave optics & concept of interference and its types,

CO2 understand the phenomenon of diffraction & Polarization and distinguish between diffraction and interference

CO3 Explore various applications of lasers.

CO4 Understand fundamental concepts of the universe

CO5 Gain an understanding of our galaxy and the Big Bang theory.

### Unit I: Wave Optics-Interference of Light

**12 Contact Hours**

- Wave theory,
- Huygen wave theory,
- Superposition theorem, Interference, types of interference,
- Young`s double slit experiment,
- Newton`s ring,
- Michelson Interferometer.

**Unit II: Diffraction and Polarization****15 Contact Hours**

- Diffraction,
- Distinction between Diffraction and Interference,
- Types of diffraction,
- Fraunhofer diffraction due to single slit, double slit and diffraction grating.
- Polarised and Unpolarised light, linear and circular polarization.
- Brewster's and Malu's law.

**Unit III: Laser****15 Contact Hours**

- Spontaneous and stimulated emission,
- Population inversion,
- Principle of LASER action,
- Properties of LASER-coherence, intensity, monochromaticity,
- He-Ne LASER, semiconductor LASER, applications.

**Unit IV: Universe****10 Contact Hours**

- Our Galaxy,
- Big Bang Theory,
- Expansion of the universe- Hubble's law,
- Microwave background radiation,
- Nucleosynthesis.

**Practicum**

1. To determine the wavelength of He-Ne LASER using transmission diffraction grating.
2. To determine the wavelength of sodium light using Newton's ring apparatus.
3. To determine the wavelength of lines of mercury by plane diffraction grating.

**Suggested Readings**

- Avadhanulu, M.N. and Kshirsagar, P.G. A Textbook of Engineering Physics.
- Rensick, Halliday and Krane. Physics Volume 2. Wiley.
- Subrahmanyam, N., Lal, B., Avadhanulu, M.N. Optics, S. Chand.

**Advanced readings**

- Principles of Optics: Electromagnetic Theory of Propagation, Interference and Diffraction of

Light" by Max Born and Emil Wolf

- Polarized Light in Optics and Spectroscopy" by David S. Kliger and John W. Lewis
- Laser Fundamentals" by William T. Silfvast
- An Introduction to Modern Cosmology" by Andrew Liddle

### Online References

33. <https://swayam.gov.in>
34. <http://www.ncte.nic.in>
35. <http://egyankosh.ac.in>
36. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Comprehend the principles of wave optics & concept of interference and its types	PO1
CO2	understand the phenomenon of diffraction & Polarization and distinguish between diffraction and interference	PO3
CO3	Explore various applications of lasers	PO5
CO4	Understand fundamental concepts of the universe	PO7
CO5	Gain an understanding of our galaxy and the Big Bang theory	PO3

Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
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Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Physics IV SEED372A	2		3		3		2						3	2

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3												3	
C O 2			3											2
C O 3					3									
C O 4							3							
C O 5			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Wave Optics-Interference of Light
Local	
Regional	
National	
Global	
Employability	Wave theory, Huygen wave theory, Superposition theorem, Interference, types of interference, Young`s double slit experiment, Newton`s ring, Michelson Interferometer.



Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Diffraction and Polarization</b>
Local	Diffraction, Distinction between Diffraction and Interference, Types of diffraction,
Regional	
National	
Global	
Employability	Diffraction, Distinction between Diffraction and Interference, Types of diffraction, Fraunhofer diffraction due to single slit, double slit and diffraction grating. Polarised and Unpolarised light, linear and circular polarization. Brewster's and Malu's law.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Laser</b>
Local	He-Ne LASER, semiconductor LASER, applications
Regional	
National	
Global	

Employability	Spontaneous and stimulated emission, Population inversion, Principle of LASER action, Properties of LASER-coherence, intensity, monochromaticity, He-Ne LASER, semiconductor LASER, applications.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	He-Ne LASER, semiconductor LASER, applications
Environment & Sustainability	
<b>Unit IV</b>	<b>Universe</b>
Local	Microwave background radiation
Regional	
National	
Global	Our Galaxy Big Bang Theory
Employability	Our Galaxy, Big Bang Theory, Expansion of the universe- Hubble's law, Microwave background radiation, Nucleosynthesis.
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Our Galaxy, Big Bang Theory, Expansion of the universe- Hubble's law,

	Microwave background radiation, Nucleosynthesis
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, achieve literacy and numeracy (4.1-4.6)
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED374A</b>	<b>Chemistry IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic understanding of Chemistry and its Concepts				
<b>Co-requisites</b>	--				

### Course Overview

This course divided into four units Ether, Epoxide and organometallic compounds, Amino acids, Peptides & proteins, Electrochemistry and The halogen family. This subject matter incorporated in this course will help students to Learn nomenclature and reactions of ethers and epoxides, Know about amino acid and peptides and their chemical properties, Provides explanation regarding chemistry of halogen family in terms of Chemical reactivity and group trends, Know about the chemistry of noble gases with Occurrence & uses, rationalization of inertness of noble gases, Understand the basic concepts of electrochemistry, Acquire knowledge about the nature and behaviour of electrolytes and their ionization.

### Course Objectives

The course will enable the student-teachers to –

- Learn structure, stability, methods of synthesis and reactions of ether and epoxides.
- Develop an understanding of behaviour, chemical nature of various compounds like ether, epoxide, and Proteins, Amino acids.
- Acquire knowledge about the nature and behaviour of electrolytes and their ionization.
- Enhance the understanding of basic concepts of electrochemistry.
- Know about the chemistry of noble gases, classification of noble gases, concept of organometallic compounds of Mg and Li and their use in synthesis of organic compound.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1:** Understand the nomenclature, physical properties, and laboratory preparation of ethers and Organometallic Compounds.

**CO2:** Acquire knowledge of the synthesis of simple peptides, Amino Acids and Proteins.

**CO3:** Comprehend the applications of electrolysis in metallurgy and industry.

**CO4:** Understand the chemical reactivity and group trends of the halogens.

**Unit I: Ether, Epoxide and Organometallic Compounds**

**12 Contact Hours**

- Nomenclature,
- Physical Properties,
- Laboratory preparation,
- Williamsons Synthesis,
- Diazomethane method reactions of ether.
- Synthesis of epoxides;
- Acid and base-catalyzed ring opening of epoxides;
- Orientation of epoxide ring opening.
- Organometallic compounds of Mg and Li and their use in synthesis of organic compounds.
- Reactions of Grignard and Organolithium reagents with epoxides.

### **Unit II: Amino Acids, Peptides and Proteins**

**15 Contact Hours**

- Preparation of Amino Acids,
- Strecker synthesis using Gabriels phthalimide synthesis,
- Zwitterion,
- Isoelectric Point & Electrophoresis.
- Reactions of Amino acid, Nin Hydrin test.
- Overview of primary, secondary & Tertiary & quaternary st. of protein,
- Determination of Primary St. of peptides by Edmann degradation of (N Terminal) & (CTerminal),
- Synthesis of simple Peptides (up to dipeptides) by N-Protection (t-butyloxycarbonyl and phtholoye), Merrifield Solid phase synthesis.

### **Unit III: Electrochemistry**

**15 Contact Hours**

- Quantitative aspects of Faraday's laws of electrolysis, rules of oxidation/reduction of ions based on half-cell potentials, applications of electrolysis in metallurgy and industry.
- Chemical cells, reversible and irreversible cells with examples.
- Electromotive force of a cell and its measurement, Nernst equation;
- Standard electrode (reduction) potential and its application to different kinds of half-cells. Applications.

## Unit IV: The Halogen Family

### 10 Contact Hours

- Chemical reactivity and group trends;
- Chemistry of preparation of fluorine;
- Hydrogen halides;
- HF as a solvent;
- Preparation and structures of inter-halogen compounds;
- Polyhalide and polyhalonium ions;
- Polyatomic cations of halogens;
- Oxides and oxyacids of halogens.
- Noble gases: Occurrence & uses, rationalization of inertness of noble gases, Clathrates; preparation and properties of XeF<sub>2</sub> and XeF<sub>4</sub>, XeF<sub>6</sub>; Nature of bonding in noble gas compounds (Valence bond treatment and MO treatment for XeF<sub>2</sub>). Molecular shapes of noble gas compounds (VSEPR theory).

### Practicum

1. Estimation of total hardness of water samples.
2. Estimation of Ca<sup>2+</sup> in solution by (substitution method) using Erio-chrome black-T as indicator.
3. Estimation of glycine by formylation method.
4. Estimation of available chlorine in bleaching powder iodometrically.
5. Oxidation of the following compounds: benzaldehyde, benzyl alcohol acetophenone to benzoic acid (by iodoform reaction).

### Suggested Readings

- Bahl, A. and Bahl, B. S. Advanced Organic Chemistry, S. Chand and Co. Ltd., New Delhi.
- Bahl, Arun, Essentials of Physical Chemistry, S. Chand Publishing.
- Finar, I. L. Organic Chemistry (Volume 1), Dorling Kindersley (India) Pvt. Ltd., Pearson Education.
- Morrison, R. N. and Boyd, R. N. Organic Chemistry, Dorling Kindersley (India) Pvt. Ltd., Pearson Education.
- Pandey, O. P., Bajpai, D. N. and Giri, S. Practical Chemistry for B.Sc. I, II and III Students of All Indian Universities.

- Puri, B. R., Sharma, L. R. and Kalia, K. C., Principles of Inorganic Chemistry, Shobhan Lal Nagin Chand & Co., New Delhi.
- Puri, B. R., Sharma, L. R. and Pathania, M. S. Principles of Physical Chemistry, Vishal Publishing Company.
- Vogel, A. I. A Textbook of Quantitative Inorganic Analysis, ELBS.

### Advanced Readings

- *Organic Syntheses Based on Name Reactions" by Alfred Hassner and Irina Shechter*
- *Modern Electrochemistry" by John O'M. Bockris, Amulya K.N. Reddy, and Maria E. Gamboa-Aldeco*
- *Protein Structure and Function" by Gregory A. Petsko and Dagmar Ringe*
- *Advanced Inorganic Chemistry" by Gary L. Miessler, Paul J. Fischer, and Donald A. Tarr*

### Online References

<https://swayam.gov.in>  
<http://www.ncte.nic.in>  
<http://egyankosh.ac.in>  
[www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the nomenclature, physical properties, and laboratory preparation of ethers and Organometallic Compounds.	PO1
CO2	Acquire knowledge of the synthesis of simple peptides, Amino Acids and Proteins	PO3
CO3	Comprehend the applications of electrolysis in metallurgy and industry	PO7
CO4	Understand the chemical reactivity and group trends of the halogens	PO3

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Chemistry IV SEED 374	2		3				2						2	3

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3												2	
C O 2			3											3
C O 3							3							
C O 4			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														



<b>Unit I</b>	<b>Ether, Epoxide and Organometallic Compounds</b>
Local	
Regional	
National	
Global	
Employability	Nomenclature, Physical Properties, Laboratory preparation, Williamsons Synthesis, Diazomethane method reactions of ether. Synthesis of epoxides;
Entrepreneurship	Acid and base-catalyzed ring opening of epoxides; Orientation of epoxide ring opening. Organometallic compounds of Mg and Li and their use in synthesis of organic compounds. Reactions of Grignard and Organolithium reagents with epoxides.
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit II</b>	<b>Amino Acids, Peptides and Proteins</b>
Local	
Regional	
National	
Global	
Employability	Preparation of Amino Acids, Strecker synthesis using Gabriels phthalimide synthesis, Zwitterion, Isoelectric Point & Electrophoresis. Reactions of Amino acid, Nin Hydrin test.
Entrepreneurship	Determination of Primary St. of peptides by Edmann degradation of (N Terminal) & (CTerminal), Synthesis of simple Peptides (up to dipeptides) by N-Protection (t-butylloxycarbonyl and phtholoye), Merrifield Solid phase synthesis.
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Electrochemistry</b>
Local	
Regional	
National	
Global	

Employability	Quantitative aspects of Faraday's laws of electrolysis, rules of oxidation/reduction of ions based on half-cell potentials, applications of electrolysis in metallurgy and industry. Chemical cells, reversible and irreversible cells with examples.
Entrepreneurship	Electromotive force of a cell and its measurement, Nernst equation; Standard electrode (reduction) potential and its application to different kinds of half-cells. Applications.
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>The Halogen Family</b>
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	Polyhalide and polyhalonium ions; Polyatomic cations of halogens; Oxides and oxyacids of halogens. Noble gases: Occurrence & uses, rationalization of inertness of noble gases, Clathrates; preparation and properties of XeF <sub>2</sub> and XeF <sub>4</sub> , XeF <sub>6</sub> ; Nature of bonding in noble gas compounds (Valence bond treatment and MO treatment for XeF <sub>2</sub> ). Molecular shapes of noble gas compounds (VSEPR theory).
Skill Development	Chemical reactivity and group trends; Chemistry of preparation of fluorine; Hydrogen halides; HF as a solvent; Preparation and structures of inter-halogen compounds;
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	By 2030, ensure that people everywhere have the relevant information and awareness for sustainable development and lifestyles in harmony with nature (12.8). Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all (9.1), achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil to minimize their adverse impacts on human health and the environment (12.4)
NEP 2020	Infectious disease management and development of vaccines and the

	resultant social issues heightens the need for multidisciplinary learning. (Pg 4), Towards a More Holistic and Multidisciplinary Education, (11.2) increased creativity and innovation, critical thinking and higher order thinking capacities, problem-solving abilities, teamwork, communication skills)
POE/4 <sup>th</sup> IR	Integrating updated curriculum and practical courses inspired by the 4th Industrial Revolution to impart industry-relevant technical skills, aligning with the evolving needs of chemical industries for enhanced employability and skill development."

<b>SEED376A</b>	<b>Biology IV</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basic concepts of plant and animal biology				
<b>Co-requisites</b>	--				

## Course Objectives

The student-teachers will be able to:

- To develop an understanding of environment as a science.
- To develop an insight of biology as a means to human welfare.
- To know the principles of biotechnology and apply its knowledge in health and agriculture.
- To examine the relationship of organism and environment and confront with various environmental issues.

## Course Outcomes

On completion of this course the student-teachers will be able to:

- CO1.** Understand the various aspects of environment viz. food chains, pollution, biosphere.
- CO2.** Examine and comprehend the usefulness of biology for human welfare.
- CO3.** Understand the principles of biotechnology and its application in health and agriculture.
- CO4.** Analyze the interrelationship of organism and environment and suggest measures to combat environmental degradation.

## **Catalog Description**

Biology IV is a course designed to study the effect of Biology on humane welfare. The course provides an overview of Environmental Science, Biology and Human Welfare, Biotechnology and Its Applications to Ecology and Environment. This course helps us to understand the influence of Biology as a Science in day to day life.

## **Course Content**

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### **Unit I:**

**8 Contact Hours**

#### **Environmental Science**

Biomes, flow of energy: food chains and pyramids. Pollution: Water, air, soil, noise pollution. Biosphere and its future: Population explosion, Nuclear winter, acid rain, Greenhouse effect.

### **Unit II:**

**12 Contact Hours**

#### **Biology and Human Welfare**

Health and Disease: Pathogens; parasites causing human diseases (Malaria, Filariasis, Ascariasis, Typhoid, Pneumonia, common cold, amoebiasis, ring worm); Basic concepts of immunology–vaccines; Cancer, HIV and AIDs; Adolescence, drug and alcohol abuse. Improvement in food production: Plant breeding, tissue culture, single cell protein, Biofortification; Apiculture and Animal husbandry. Microbes in human welfare: In household food processing, industrial production, sewage treatment, energy generation and as biocontrol agents and biofertilizers.

### **Unit III:**

**06 Contact Hours**

#### **Biotechnology and Its Applications**

Principles and process of Biotechnology: Genetic engineering (Recombinant DNA technology). Application of Biotechnology in health and agriculture: Human insulin and vaccine production, gene therapy; Genetically modified organisms- Bt crops; Transgenic Animals; Biosafety issues– Biopiracy and patents.

**Ecology and Environment**

Organisms and environment: Habitat and niche; Population and ecological adaptations; population interactions—mutualism, competition, predation, parasitism; Population attributes—growth, birth rate and death rate, age distribution. Ecosystems: Patterns, components; productivity and decomposition; Energy flow; Pyramids of number, biomass, energy; Nutrient cycling (carbon and phosphorous); Ecological succession; Ecological Services— Carbon fixation, pollination, oxygen release. Biodiversity and its conservation: Concept of Biodiversity; Patterns of Biodiversity; Importance of Biodiversity; Loss of Biodiversity; Biodiversity conservation; Hotspots, endangered organisms, extinction, Red Data Book, biosphere reserves, National parks and sanctuaries. Environmental issues: Air pollution and its control; Water pollution and its control; Agrochemicals and their effects; Solid waste management; Radioactive waste management; Greenhouse effect and global warming; Ozone depletion; Deforestation; Any three case studies as success stories addressing environmental issues.

**Suggested Text Books**

1. NCERT Class XI Textbook, NCERT, New Delhi.
2. NCERT Class XII Textbook, NCERT, New Delhi.
3. Tyagi, M.P. and Bhatia, K.N. (2018). Trueman's Elementary Biology for Class XII. Vol. 1. Danika Publishing Company.
4. Tyagi, M.P. and Bhatia, K.N. (2018). Trueman's Elementary Biology for Class XII. Vol. 2. Danika Publishing Company.

**Advanced Readings**

1. Beri, A.K. (1981). Textbook of Animal Physiology. EMK Pub.: North Suite, 313 Ponte.
2. Burns, S. (1980). Science of Genetics: An Introduction to Heredity, McMillan: New York, 4<sup>th</sup> Edition.
3. DeRobertis, EDP and DeRobertis, EMF. Cell and Molecular Biology, Saunders and Co: USA,
4. Devlin, R.M. and Witham, F.H. Plant Physiology, CBS Publishers and Distributors: Shahadara.

5. Verma, P. S. (1986). Ecology, Chand Publishers: New Delhi.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in/>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Students performance is based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand the various aspects of environment viz. food chains, pollution, biosphere.	PO1
CO2	Examine and comprehend the usefulness of biology for human welfare.	PO2
CO3	Understand the principles of biotechnology and its application in health and agriculture.	PO3
CO4	Analyze the interrelationship of organism and environment and suggest measures to combat environmental degradation.	PO3

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 376A	Biology IV	2	2	3								3	2		

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	2											2		
C O 2		2												
C O 3			3											
C O 4			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

	<b>Environmental Science</b>
Unit I	
Local	
Regional	Pollution
National	Pollution Population explosion
Global	Pollution Population explosion
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Population, Nuclear winter, acid rain, Greenhouse effect
Unit II	<b>Biology and Human Welfare</b>
Local	Health and Disease
Regional	
National	Health and Disease
Global	Health and Disease Basic concepts of immunology
Employability	
Entrepreneurship	
Skill Development	Basic concepts of immunology



Professional Ethics	
Gender	
Human Values	Health and Disease drug and alcohol abuse energy generation
Environment & Sustainability	Improvement in food production food processing, industrial production, sewage treatment, energy generation
<b>Unit III</b>	<b>Biotechnology and Its Applications</b>
Local	
Regional	
National	
Global	
Employability	Biotechnology: Genetic engineering
Entrepreneurship	Patents
Skill Development	Patents
Professional Ethics	Biopiracy
Gender	
Human Values	Biotechnology in health and agriculture Genetically modified organisms
Environment & Sustainability	Biotechnology in health and agriculture
<b>Unit IV</b>	<b>Ecology and Environment</b>
Local	Habitat and niche
Regional	Population and ecological adaptations
National	National parks and sanctuaries
Global	Ecological Services Ecosystems population interactions

Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	Biodiversity and its conservation
Gender	
Human Values	
Environment & Sustainability	Population attributes Nutrient cycling Biodiversity and its conservation Environmental issues Solid waste management; Radioactive waste management; Greenhouse effect and global warming; Ozone depletion; Deforestation
SDG	Professional Development of Teachers (SDG 4.c) Ensure access to affordable, reliable, sustainable and modern energy for all (SDG 7) Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss (SDG 15)
NEP 2020	Foundational Literacy and Numeracy: An Urgent & Necessary Prerequisite to Learning (2.1-2.9) Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46)
POE/4 <sup>th</sup> IR	Internship Skill development

<b>SEED378A</b>	<b>HISTORY IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	To understand and analyze the deferent reforms, revolutions that has shaped the modern world.				
<b>Co-requisites</b>					

### Course Overview

This course will mainly discuss about the reforms, revolutions that has shaped the modern world. The attempt has been made to make students aware about the history of modern world.

### Course Objectives

The course will enable the student-teachers to –

- Learn about different causes and forms of resistance
- Understand reforms and revolutions around the world.
- Understand the significance of Napoleon Age and Unification of Europe.
- Estimate the Causes and consequences of First World War.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Understand the impact of the Renaissance on society and culture.

**CO2** Comprehend the key events and consequences of Napoleon's rule.

**CO3** Understand the factors that contributed to the outbreak of World War I.

**CO4** Analyze the factors that led to the rise of totalitarian regimes and the emergence of Japan as a world power.

### Unit I: Age of Reforms and Revolutions

**12 Contact Hours**

- Renaissance-Emergence, nature and Impact
- The Reformation and Counter Reformation – Cause mature of reformation, results
- American war of Independence – Causes, Events, results

### Unit II: Napoleon Age and Unification of Europe

**15 Contact**

#### Hours

- Napoleonic Era, Early achievements if Napoleon’s reforms as first consul, Napoleon as Emperor of France, Continental system, Cause of Napoleon’s downfall
- Vienna Congress – main principles and reconstruction of Europe
- The Unification of Italy-Different steps of unification
- Unification of Germany – Steps of German Unification, Bismark’s policy of Blood and Iron

### Unit III: Causes that led to First World War

**15 Contact Hours**

- Eastern Question-Struggle of Freedom in Greece, Revolt of Egypt, the Crimean
- First World War-Cause, Events, Results
- Paris Peace Settlements, Assessment of Versailles Paris Settlement
- Russia Revolution of 1917

**Unit IV: Between the World Wars**

**12 Contact**

**Hours**

- The Nazi Germany-Causes of Rise of Hitler ‘s Nazi party
- Cause of rise of Fascism in Italy
- Rise of Japan as Modern World Power

**Suggested Readings**

- Hazen, C. D. Modern European History. Forgotten Books, London.
- Keegan, John (2000). The First World War, Vintage, Penguin Books, London.
- Shirer, William L. and Rosenbaum, Ron (2011). The Rise and fall of the Third Reich, Simon and Schuster, New York.
- Swain, J. E. History of World Civilisation. S. Chand & Company Pvt. Ltd., New Delhi.

**Advanced Readings**

1. Ashworth, E.J. “Renaissance Philosophy.” In: Routledge Encyclopaedia of Philosophy. Vol.8, ed. Edward Craig. London and New York: Routledge, 1998, 264-67.
2. Parkinson, G.H.R., ed. The Renaissance and Seventeenth Century Rationalism. New York: Routledge, 1993.
3. Carsten, F. L. (1967). The Rise of Fascism. London. Methuen.
4. Dev, Arjun & Indira Arjun Dev. (2009). History of the World. Hyderabad. Orient Blackswan
5. Woolf, S. J. (1981). (ed.). European Fascism. London. Weidenfeld & Nicolson

**Online References**

1. <https://egyankosh.ac.in/bitstream/123456789/56486/1/Unit-1.pdf>
2. <http://ndl.ethernet.edu.et/bitstream/123456789/44567/1/2.Alexander%20Grab.pdf>
3. <https://egyankosh.ac.in/bitstream/123456789/19959/1/Unit-13.pdf>
4. <https://egyankosh.ac.in/bitstream/123456789/71834/1/Unit-5.pdf>

**Modes of Evaluation: Student’s performance based on continuous evaluation.**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
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<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>
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**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

**Mapping between COs and POs**

	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the impact of the Renaissance on society and culture.	PO7
<b>CO2</b>	Comprehend the key events and consequences of Napoleon's rule.	PO3
<b>CO3</b>	Understand the factors that contributed to the outbreak of World War I.	PO1
<b>CO4</b>	Analyze the factors that led to the rise of totalitarian regimes and the emergence of Japan as a world power.	PO11

	<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self-Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental tasks</b>	<b>Diverse Needs</b>	<b>Research and Entrepreneurial Skills</b>
<b>Course Title &amp; Code</b>	<b>PO 1</b>	<b>PO 2</b>	<b>PO 3</b>	<b>PO 4</b>	<b>PO 5</b>	<b>PO 6</b>	<b>PO 7</b>	<b>PO 8</b>	<b>PO 9</b>	<b>PO1 0</b>	<b>PO1 1</b>	<b>PSO 1</b>	<b>PSO 2</b>	<b>PSO 3</b>
History IV SEED378 A	3		2				1				4	2	3	

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1							3						2	
C O 2			3											3
C O 3	3													
C O 4											3			
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Age of Reforms and Revolutions
Local	
Regional	
National	Renaissance-Emergence, nature and Impact
Global	American war of Independence –
Employability	
Entrepreneurship	
Skill Development	
Professional	
Ethics	
Gender	
Human Values	Causes, Events, results
Environment & Sustainability	Causes, Events, results
Unit II	Napoleon Age and Unification of Europe
Local	
Regional	
National	Napoleonic Era, Early achievements if Napoleon’s reforms as first

	consul, Napoleon as Emperor of France, Continental system, Cause of Napoleon's downfall
<b>Global</b>	Vienna Congress – main principles and reconstruction of Europe, The Unification of Italy-Different steps of unification
<b>Employability</b>	
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>Unit III</b>	<b>Causes that led to First World War</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	Eastern Question-Struggle of Freedom in Greece, Revolt of Egypt, the Crimean
<b>Global</b>	First World War-Cause, Events, Results
<b>Employability</b>	
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	Paris Peace Settlements, Assessment of Versailles Paris Settlement
<b>Environment &amp; Sustainability</b>	
<b>Unit IV</b>	<b>Between the World Wars</b>
<b>Local</b>	
<b>Regional</b>	
<b>National</b>	

<b>Global</b>	<b>The Nazi Germany-Causes of Rise of Hitler ‘s Nazi party Cause of rise of Fascism in Italy Rise of Japan as Modern World Power</b>
<b>Employability</b>	
<b>Entrepreneurship</b>	
<b>Skill Development</b>	
<b>Professional Ethics</b>	
<b>Gender</b>	
<b>Human Values</b>	
<b>Environment &amp; Sustainability</b>	
<b>SDG</b>	<b>4, Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for All.</b>
<b>NEP 2020</b>	
<b>POE/4<sup>th</sup> IR</b>	



<b>SEED380A</b>	<b>Political Science IV</b>	<b>L</b>	<b>T</b>	<b>P</b>	<b>C</b>
<b>Version 2.0</b>		<b>4</b>	<b>0</b>	<b>0</b>	<b>4</b>
<b>Pre-requisites/Exposure</b>	Basic knowledge of political science and international relations				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teacher will be able to:

- Understand the various approaches and theories together with the role of power and different organizations.
- Understand the ideologies of different nations.
- Know about the unique features of their constitutions.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1** Analyze and compare different theories and approaches in international politics.

**CO2** Evaluate the determinants and instruments of foreign policy.

**CO3** Examine the role of international law and global organizations in international politics.

**CO4** Compare and analyze the political systems of selected countries.

**CO5** Develop critical thinking and problem-solving skills in the context of international politics.

#### Unit I: International Politics

**12 Contact Hours**

- Meaning, Nature and Scope of International Politics,
- Theories and Approaches: Traditional Vs Scientific, Behavioral,
- Idealist, Realist Systems,
- Game, Communication; Decision-making.

#### Unit II: Foreign Policy

**15 Contact Hours**

- Determinants
- Instruments of Foreign Policy i.e. Diplomacy, Propaganda,
- Economic Instruments and War
- Power and its elements
- National Interest
- Balance of Power
- Collective security
- Role of Ideology
- Cold War

- Détente
- Non-alignment and Non-aligned Movement,
- Problems of the Third World.

### **Unit III: International Law & Global Organizations**

**12 Contact Hours**

- International Law,
- Global Organization:
- The United Nations
- Regional Organizations:
  - The European Union
  - S.A.A.R.C.
  - A.S.E.A.N.

### **Unit IV: Comparative Government and Politics**

**12 Contact Hours**

- Constitution of United Kingdom
- United States of America,
- Switzerland,
- France

### **Suggested Readings**

- Basu, Rumki, International Politics: Concepts, Theories and Issues, Sage Publications India, Pvt. Limited.
- Baylis, John, Smith, Steve and Owens, Patricia (2011). The Globalization of World Politics, Oxford University Press.
- Kapur, A. C. and Mishra, K. K. (2010). Select Constitutions, S. Chand.
- Kapur, A. C. Principles of Political Science, S. Chand Publishing.
- Kumar, Mahendra. Theoretical Aspects of International Politics, Shivalal Agarwala and Company.

### **Advanced Readings**

- Drezner, D. W. (2011). Theories of International Politics and Zombies. Princeton University Press.
- Waltz, K. N. (2001). Man, the State, and War: A Theoretical Analysis. Columbia University Press.

- Hudson, V. M., & Vore, C. S. (Eds.). (2017). Foreign Policy Analysis: Classic and Contemporary Theory. Rowman & Littlefield.
- Lowe, V. (2007). International Law: A Very Short Introduction. Oxford University Press.
- Hanhimäki, J. M. (2015). The United Nations: A Very Short Introduction. Oxford University Press.

### Online References

37. <https://swayam.gov.in>
38. <http://www.ncte.nic.in>
39. <http://egyankosh.ac.in>
40. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Analyze and compare different theories and approaches in international politics.	<b>PO1</b>
<b>CO2</b>	Evaluate the determinants and instruments of foreign policy.	<b>PO6</b>
<b>CO3</b>	Examine the role of international law and global organizations in international politics.	<b>PO7</b>
<b>CO4</b>	Compare and analyze the political systems of selected countries.	<b>PO5</b>
<b>CO5</b>	Develop critical thinking and problem-solving skills in the context of international politics.	<b>PO3</b>

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Political Science IV 380A	2		3	3	3	3	2					3	3	

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping															
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	O	O	O	O
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C01	3												3		
C02						3								3	
C03							3								
C04					3										
C05			3												

1=lightly mapped

2= moderately mapped

3=strongly mapped

<b>Unit I</b>	<b>International Politics</b>
Local	
Regional	
National	Meaning, Nature and Scope of International Politics, Theories and Approaches: Traditional Vs Scientific, Behavioural, Idealist, Realist Systems, Game, Communication; Decision-making.
Global	
Employability	Meaning, Nature and Scope of International Politics, Theories and Approaches: Traditional Vs Scientific, Behavioural, Idealist, Realist Systems, Game, Communication; Decision-making.
Entrepreneurship	
Skill Development	Meaning, Nature and Scope of International Politics, Theories and Approaches: Traditional Vs Scientific, Behavioural, Idealist, Realist Systems, Game, Communication; Decision-making.
Professional Ethics	
Gender	
Human Values	Meaning, Nature and Scope of International Politics, Theories and Approaches: Traditional Vs Scientific, Behavioural, Idealist, Realist Systems, Game, Communication; Decision-making.
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
<b>Unit II</b>	<b>Foreign Policy</b>
Local	
Regional	
National	Determinants Instruments of Foreign Policy i.e. Diplomacy, Propaganda, Economic Instruments and War Power and its elements National Interest Balance of Power Collective security Role of Ideology Cold War Détente Non-alignment and Non-aligned Movement, Problems of the Third World.
Global	
Employability	Determinants Instruments of Foreign Policy i.e. Diplomacy, Propaganda, Economic Instruments and War

	Power and its elements National Interest Balance of Power Collective security Role of Ideology Cold War Détente Non-alignment and Non-aligned Movement, Problems of the Third World.
Entrepreneurship	
Skill Development	Determinants Instruments of Foreign Policy i.e. Diplomacy, Propaganda, Economic Instruments and War Power and its elements National Interest Balance of Power Collective security Role of Ideology Cold War Détente Non-alignment and Non-aligned Movement, Problems of the Third World.
Professional Ethics	
Gender	
Human Values	Determinants Instruments of Foreign Policy i.e. Diplomacy, Propaganda, Economic Instruments and War Power and its elements National Interest Balance of Power Collective security Role of Ideology Cold War Détente Non-alignment and Non-aligned Movement, Problems of the Third World.
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development
<b>Unit III</b>	<b>International Law &amp; Global Organizations</b>
Local	
Regional	
National	International Law, Global Organization:

	The United Nations Regional Organizations: The European Union S.A.A.R.C. A.S.E.A.N.
Global	
Employability	International Law, Global Organization: The United Nations Regional Organizations: The European Union S.A.A.R.C. A.S.E.A.N.
Entrepreneurship	
Skill Development	
Professional Ethics	International Law, Global Organization: The United Nations Regional Organizations: The European Union S.A.A.R.C. A.S.E.A.N.
Gender	
Human Values	International Law, Global Organization: The United Nations Regional Organizations: The European Union S.A.A.R.C. A.S.E.A.N.
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development
<b>Unit IV</b>	<b>Comparative Government and Politics</b>
Local	
Regional	
National	Constitution of United Kingdom United States of America, Switzerland, France
Global	
Employability	Constitution of United Kingdom

	United States of America, Switzerland, France
Entrepreneurship	
Skill Development	
Professional Ethics	Constitution of United Kingdom United States of America, Switzerland, France
Gender	
Human Values	Constitution of United Kingdom United States of America, Switzerland, France
Environment & Sustainability	
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	Employability, Entrepreneurship, Skill Development



SEED382A	Geography IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Foundational understanding of concepts of geography and basic knowledge of environmental, social, and economic systems				
Co-requisites	--				

### Course Overview

This course provides the students with the Physical Parameters of Geography with reference to Transport, Communication and Trade, Human settlements (World and India) and Geographical perspective on national issues and problems.

### Course Objectives

The course will enable the student-teachers to –

- Familiarise the students with transport and communication with reference to roads, railways, waterways and airways.
- Understand communication networking-radio, television, satellite and internet in international trade.
- Develop geographical perspective on some selected issues and problems.
- Develop hands-on approach to study of Geography.

### Course Outcomes

On completion of this course, the student-teacher will be able to:

**CO1.** Understand the significance of transport, communication, and trade in the context of geography.

**CO2** Analyze human settlements globally and in India and functional classification of urban settlements. Explore the challenges of urbanization,

**CO3** Gain a geographical perspective on selected issues and problems, including environmental pollution, global warming, poverty, food security, and sustainable development.

**CO4** Develop practical skills in data processing, thematic mapping, and representing statistical data using diagrams.

**CO5** Apply spatial analysis techniques, including overlay, buffer, and proximity analysis, to analyze geographic data and solve real-world problems.

### Unit I

### 12 Contact Hours

- Transport, Communication and Trade: Transport and communication Roads, railways, waterways and airways; oil and gas pipelines, national electric grids.
- Communication networking-radio, television, satellite and Internet.
- International Trade- Basis and components, trade balance, major trading organizations, changing pattern of India's foreign trade, sea-routes, inland water-ways, sea ports and

their hinter-land.

## **Unit II**

**15 Contact Hours**

- Human settlements (World and India): Unstable and stable settlements, rural settlements: origin, types and patterns;
- Urban settlements: Origin and growth of towns; functional classification of towns.
- Problems of urbanization in the world; urbanization in India; Urban slums and squatters. Morphology of cities;
- Distribution of Mega-cities, problems of human settlements in Developing countries.

## **Unit III**

**12 Contact Hours**

- Geographical perspective on selected issues and problems: Environmental pollution- Land, Water, Air, Noise, Global Warning, Poverty, Food Security;
- Sustainable Development.

## **Unit IV Practical:**

**15 Contact Hours**

- Processing of Data, Thematic mapping, representing statistical data by various diagrams-Bar, Histogram, Pie etc.
- Spatial Information technology: GIS, GPS, Computers-Software and Hardware components, Data format, Raster and Vector, editing and topology etc.
- Spatial Analysis; Overlay, Buffer and Proximity analysis.

## **Suggested Readings**

- Johnes, Hue (1989). Population Geography, Harper and Harper, London.
- Johnson, J. H. (1972). Urban Geography, An Introductory Analysis, Pergamon Press, Oxford.
- Jones, C. F. and Darkenwald, G. G. (1982). Principles of Economic Geography, Surjeet Publications, Delhi.
- Mitchell, B. (1988). Geography and Resource Analysis, Longman, London.
- Strahler, A. H. and Strahler, A. N. (1984). Exercises in Physical Geography, John Wiley, New York.
- Tikka, R. N. (1989). Bhautik Bhugaol, Kedar Nath Ram Nath, Meerut.
- Zimmerman, E. W. (1964). Introduction to World Resources, Harper and Row, New York.

## **Advance Readings**

- Adger, W. N., Paavola, J., & Huq, S. (Eds.). (2006). Fairness in Adaptation to Climate

- Change. The MIT Press.
- Brunn, S. D., Cutter, S. L., & Harrington Jr, J. W. (Eds.). (2001). Geography and Technology. Springer.
  - Davis, M. (2006). Planet of Slums. Verso.
  - Knox, P. L., & McCarthy, L. (2019). Urbanization: An Introduction to Urban Geography (4th ed.). Pearson.
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### Online References

41. <https://swayam.gov.in>
42. <http://www.ncte.nic.in>
43. <http://egyankosh.ac.in>
44. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Student's performance based on continuous evaluation.**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
<b>CO1</b>	Understand the significance of transport, communication, and trade in the context of geography.	<b>PO1</b>
<b>CO2</b>	Analyze human settlements globally and in India and functional classification of urban settlements. Explore the challenges of urbanization,	<b>PO6</b>
<b>CO3</b>	Gain a geographical perspective on selected issues and problems, including environmental pollution, global warming, poverty, food security, and sustainable development.	<b>PO7</b>
<b>CO4</b>	Develop practical skills in data processing, thematic mapping, and representing statistical data using diagrams.	<b>PO8</b>
<b>CO5</b>	Apply spatial analysis techniques, including overlay, buffer, and proximity analysis, to analyze geographic data and solve real-world problems.	<b>PO3</b>

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills
Course Title & Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
Geography IV 382A	3		3			3	3	3					3	3

1=lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3												3	
C O 2						3								3
C O 3							3							
C O 4								3						
C O 5			3											
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	
Local	
Regional	
National	Transport, Communication and Trade

Global	
Employability	Communication networking
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	
Local	
Regional	
National	Human settlements
Global	Problems of urbanization in the world
Employability	Urban settlements, Distribution of Mega-cities
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	Distribution of Mega-cities
Unit III	
Local	
Regional	
National	Geographical perspective on selected issues and problems
Global	
Employability	
Entrepreneurship	
Skill Development	Sustainable Development.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	
Local	
Regional	
National	Processing of Data
Global	
Employability	Spatial Information technology
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	

Human Values	
Environment & Sustainability	
SDG	4,13
NEP 2020	
POE/4 <sup>th</sup> IR	

<b>SEED384A</b>	<b>ECONOMICS IV</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Indian Economy and Employment policy				
<b>Co-requisites</b>	--				

### Course Objectives:

The course will enable the student-teachers to:

- Understand the nature and structure of Indian economy and economic planning in India.
- Create awareness about Demographic Features of India's Population.
- Understand the concepts, incidence and extent of poverty in India.
- Understand the features of Indian agriculture and land reforms in India.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Examine the causes and remedies of various problems faced by the Indian economy like poverty, inequality, unemployment etc.

**CO2:** Critically Examine the issues related to growth of Indian economy, its planning and economic reforms.

**CO3:** To develop a perspective on the different problems and approaches to economic planning and development in India

**CO4:** Describe the agriculture system in India and give better suggestion to improve further.

### Catalog Description:

India is one of the largest economies in the world. It is predicted to be the second largest economy in the world by 2050. So, what contributes to accelerate /impede the growth Indian economy? To

answer these students will learn about planning of Indian Economy, Demographic features acting in tandem with Economic policies, agriculture and its role in shaping Indian Economy, poverty and Programmes for eradication of poverty in making Indian economy vibrant and robust.

## **Course Content**

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### **Unit I: 10 Contact Hours**

#### **Nature and Structure of Indian Economy**

- Basic characteristics and features of Indian economy.
- Changes in structure of Indian Economy (Primary Sector, Secondary Sector & Tertiary Sector). Economic Planning in India
- Features
- Objectives and Assessment of Indian Planning. Employment policy

### **Unit II: 10 Contact Hours**

#### **Demographic Features of India's Population**

- Inter-state disparities in the pattern of development
- Structural Change in the distribution of Income and Workforce in India National Income
- Growth and composition
- Contribution of different sector & growth pattern

### **Unit III: 10 Contact Hours**

#### **Poverty in India**

- Concepts, incidence & extent of poverty in India
- Inequality and Social Justice
- Human Development Index
- Gender Development Indices
- Poverty and unemployment in India.
- Programmes for eradication of poverty and unemployment with special reference to the post – reform era

### **Unit IV 10 Contact Hours**

## Agriculture

- Features of Indian Agriculture
- Land relations and land reforms
- Technological aspects, rural credit
- Pricing of agricultural produce
- Impact of Green Revolution on Indian Agriculture
- Recent Trends in Agricultural Development -- Causes of Deceleration
- Future Challenges. New Agricultural strategy

### Advanced Readings

1. Brahmananda, P. R. and Panchmukhi (1987). The Development Process of Indian Economy, V. R. (Eds.) Himalaya Publishing House, Bombay.
2. Byres, T. J. (Ed.) (1998). The Indian Economy: Major Debate since Independence, Oxford University Press, New Delhi.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: : Students performance is based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Examine the causes and remedies of various problems faced by the Indian economy like poverty, inequality, unemployment etc.	PO10
CO2	Critically Examine the issues related to growth of Indian economy, its planning and economic reforms	PO3



<b>CO3</b>	To develop a perspective on the different problems and approaches to economic planning and development in India	<b>PO10</b>
<b>CO4</b>	Describe the agriculture system in India and give better suggestion to improve further.	<b>PO7</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 384A	Economics IV			3	3			3	2		2			3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CO 1										3				
CO 2			3										3	
CO 3										2				

C O 4							3							
	1=lightly mapped			2= moderately mapped				3=strongly mapped						

Unit I	Nature and Structure of Indian Economy
Local	
Regional	
National	<ul style="list-style-type: none"> <li>• Basic characteristics and features of Indian economy.</li> <li>• Changes in structure of Indian Economy (Primary Sector, Secondary Sector &amp; Tertiary Sector). Economic Planning in India</li> <li>• Features</li> <li>• Objectives and Assessment of Indian Planning. Employment policy</li> </ul>
Global	
Employability	<ul style="list-style-type: none"> <li>• Basic characteristics and features of Indian economy.</li> <li>• Changes in structure of Indian Economy (Primary Sector, Secondary Sector &amp; Tertiary Sector). Economic Planning in India</li> <li>• Features</li> <li>• Objectives and Assessment of Indian Planning. Employment policy</li> </ul>
Entrepreneurship	<ul style="list-style-type: none"> <li>• Basic characteristics and features of Indian economy.</li> <li>• Changes in structure of Indian Economy (Primary Sector, Secondary Sector &amp; Tertiary Sector). Economic Planning in India</li> <li>• Features</li> <li>• Objectives and Assessment of Indian Planning. Employment policy</li> </ul>
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	Demographic Features of India's Population
Local	

Regional	
National	
Global	
Employability	<ul style="list-style-type: none"> <li>• Inter-state disparities in the pattern of development</li> <li>• Structural Change in the distribution of Income and Workforce in India National Income</li> <li>• Growth and composition</li> <li>• Contribution of different sector &amp; growth pattern</li> </ul>
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Poverty in India</b>
Local	
Regional	
National	<p>Concepts, incidence &amp; extent of poverty in India</p> <p>Poverty and unemployment in India.</p>
Global	
Employability	<p>Concepts, incidence &amp; extent of poverty in India</p> <p>Inequality and Social Justice</p> <p>Human Development Index</p> <p>Gender Development Indices</p> <p>Poverty and unemployment in India.</p> <p>Programmes for eradication of poverty and unemployment with special reference to the post – reform era</p>
Entrepreneurship	
Skill Development	
Professional Ethics	

Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Agriculture</b>
Local	
Regional	
National	Impact of Green Revolution on Indian Agriculture
Global	
Employability	<p>Features of Indian Agriculture</p> <p>Land relations and land reforms</p> <p>Technological aspects, rural credit</p> <p>Pricing of agricultural produce</p> <p>Impact of Green Revolution on Indian Agriculture</p> <p>Recent Trends in Agricultural Development -- Causes of Deceleration</p> <p>Future Challenges. New Agricultural strategy</p>
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all (SDG 9.1) Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (SDG 8), End poverty in all its forms everywhere (SDG 1), End hunger, achieve food security and improved nutrition and promote sustainable agriculture (SDG 2)
NEP 2020	Professional Education (17.1-17.5), Promoting High-quality research (18.1-18.9), Towards a More Holistic and Multidisciplinary Education (11.1- 11.13) , Re-imagining Vocational Education (16.1-16.7)
POE/4 <sup>th</sup> IR	Practical Courses from Industry/Alumni, Case Competitions, Entrepreneurial Program through Innovation System, Focus on Employability Skills (Local/Regional and Global) / Skill Development, Entrepreneurship ,Employability

<b>SEMESTER VII</b>
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<b>SEED477A</b>	<b>RESEARCH PROJECT I (CASE STUDY)</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Research And Methodology				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Do reflective enquiry through classroom-based research.
- Enhance the skills of systematic observation and documentation.
- Equip the intern for reflective teaching.

### Course Outcomes

On the completion of the course the students will be able to:

**CO1:** Develop knowledge, Understanding and an insight of the various underlying concepts of research.

**CO2:** Understand Research designs, tools and techniques of gathering data.

**CO3:** Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.

**CO4:** Explore educational research problems and prepare and present a research proposal

**CO5:** Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.

### Catalogue Description

A case study is research method that involves an up-close, in-depth and detailed investigation of a subject of study and its related contextual position. They can be produced following a form of research. A case study helps in bringing the understanding of a complex issue or object. It can extend experience or add strength to the existing knowledge through previous research. Their contextual analysis revolves around a limited number of events or conditions

and how they relate. The students would be acquainted with the planning and execution of case studies in order to undertake prognosis and diagnosis of the problems faced by their cases.

## Course Content

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### Project Work

**20 Contact Hours**

1. Every student is required to take up project work in specific area of interest .Project work is designed to initiate students into a process of scientific enquiry, through classroom-based research, Small projects on specific themes such as miscue analysis, gender stereotypes, error analysis ,children’s understanding of specific concepts and so on can be taken up.
2. Student intern may use their experience of teaching in identifying project theme, and undertake the task of data-collection during internship. Each individual project will be conducted under the guidance of a faculty member.
3. Each Student expected to understand two or three small projects. These could be related to pedagogy subject to language or may be based on any of the foundation and specialized courses of fourth year.
4. It is expected that the research undertaken will enable students to cultivate skills of systematics observation, documentation, critical analysis and interpretation. This will create a teacher oriented towards probing into children’s learning processes with objective of improving classroom practices. Students will be expected to submit a short report on each project.

**Each project will be assessed by the supervisors using the following basis and criteria**

S.No.	Basis	Criteria
1	Introduction of the concept undertaken for research	<ul style="list-style-type: none"> <li>• Theoretical and research status</li> <li>• Methodology</li> </ul>
2	Data collection	<ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Richness and detail in records</li> </ul>

3	Analysis and Interpretation	<ul style="list-style-type: none"> <li>• Framework used</li> <li>• Link with theory</li> <li>• Presentation</li> <li>• Comprehensiveness</li> <li>• Use of Examples from raw-data</li> </ul>
4	Implications	<ul style="list-style-type: none"> <li>• Inferences</li> <li>• How do the research findings inform practice?</li> </ul>

### Advanced Readings

1. Best and Kahn, Research Methodology, PHI Limited.
2. Business Research Methods – Alan Bryman & Emma Bell, Oxford University Press.
3. Design of Experience: Statistical Principles of Research Design and Analysis, by Robert
4. Fundamentals of modern statistical methods by Rand R.wilcox.
5. Kerlinger, Foundation of Research.
6. Kothari, C.R. Research Methodology (Methods and Techniques), New Age Publisher.
7. Power Analysis for Experimental research A Practical Guide for the Biological, Medical and social Sciences by R. Barker Bausell, Yi-Fang Li Cambridge University Press.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

### Examination Scheme:

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop knowledge, Understanding and an insight of the various underlying concepts of research.	PO3
CO2	Understand Research designs, tools and techniques of	PO3

	gathering data.	
<b>CO3</b>	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	<b>PO3</b>
<b>CO4</b>	Explore educational research problems and prepare and present a research proposal	<b>PO3</b>
<b>CO5</b>	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	<b>PO10</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED477A	Research Project I (Case Study)			3	3								3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped



<b>Programme and Course Mapping</b>														
<b>C O</b>	<b>P O 1</b>	<b>P O 2</b>	<b>P O 3</b>	<b>P O 4</b>	<b>P O 5</b>	<b>P O 6</b>	<b>P O 7</b>	<b>P O 8</b>	<b>P O 9</b>	<b>P O 10</b>	<b>P O 11</b>	<b>P S O 1</b>	<b>P S O 2</b>	<b>P S O 3</b>
<b>C O 1</b>			3									3		
<b>C O 2</b>			3										3	
<b>C O 3</b>			3											
<b>C O 4</b>			3											
<b>C O 5</b>										3				
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>Unit I</b>	<b>Every student is required to take up project work in specific area of interest. Project work is designed to initiate students into a process of scientific enquiry, through classroom-based research, small projects on specific themes such as miscue analysis, gender stereotypes, error analysis, children’s understanding of specific concepts and so on can be taken up.</b>
Local	classroom-based research
Regional	classroom-based research
National	classroom-based research
Global	classroom-based research
Employability	classroom-based research
Entrepreneurship	
Skill Development	classroom-based research
Professional Ethics	classroom-based research
Gender	
Human Values	

Environment & Sustainability	
Unit II	Student intern may use their experience of teaching in identifying project theme, and undertake the task of data-collection during internship. Each individual project will be conducted under the guidance of a faculty member.
Local	task of data-collection during internship
Regional	task of data-collection during internship
National	task of data-collection during internship
Global	task of data-collection during internship
Employability	task of data-collection during internship
Entrepreneurship	
Skill Development	task of data-collection during internship
Professional Ethics	task of data-collection during internship
Gender	
Human Values	
Environment & Sustainability	
Unit III	Each Student expected to understand two or three small projects. These could be related to pedagogy subject to language or may be based on any of the foundation and specialized courses of fourth year.
Local	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized courses
Regional	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized courses
National	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized course
Global	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized courses
Employability	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized courses
Entrepreneurship	
Skill Development	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized courses

Professional Ethics	small projects related to pedagogy subject to language or may be based on any of the foundation and specialized courses
Gender	
Human Values	
Environment & Sustainability	
Unit IV	It is expected that the research undertaken will enable students to cultivate skills of systematics observation, documentation, critical analysis and interpretation. This will create a teacher oriented towards probing into children's learning processes with objective of improving classroom practices. Students will be expected to submit a short report on each project.
Local	Prepare report on each project.
Regional	report on each project.
National	report on each project.
Global	report on each project.
Employability	report on each project.
Entrepreneurship	
Skill Development	Prepare report on each project.
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education,
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills) 5.27 assimilated from these approaches into the pedagogies being practiced in India
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED479A</b>	<b>SCHOOL INTERNSHIP</b>	L	T	P	C
<b>Version 2.0</b>		0	0	0	17
<b>Pre-requisites/Exposure</b>	Field Exposure				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Expose the student to professional role models or mentors who will provide the student with support in the early stages of the internship and provide an example of the behaviors expected in the intern's workplace.
- Assist the student's development of employer-valued skills such as teamwork, communications and attention to detail.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Develop observational skills and managerial skills required in schools

**CO2:** Understand pedagogical skills and to apply these skills in real teaching situations.

**CO3:** Develop a comprehensive and critical understanding of diversities, disabilities, marginalization and their inclusion in education.

**CO4:** Implicit and explicit structures in our schools that act as a hindrance in including all students.

**CO5:** Understanding of steps and standards of developing e-content

### .Catalogue Description

This semester shall entail a field engagement of 16 weeks wherein, the first week will be exclusively dedicated to observing a regular classroom with a regular teacher and would include peer observations, teacher observations and observations of interns' lessons by faculty.

In the next 15 weeks of internship the student teacher shall be engaged in teaching experience wherein the aim shall be meaningful and holistic engagement including the writing of reflective journals. This shall be enriched through extended discussions with peers and faculty

on different aspects of the teaching experience accompanied by presentations post the internship in schools

**Course Content**

<b>.No</b>	<b>Components</b>	<b>Marks</b>
1.	Simulated Lesson Plan (5 Lesson Plans each in Pedagogy of School Subject I and Pedagogy of School Subject II)	20
2.	Discussion Lessons Plan (2 Lesson Plans each in Pedagogy of School Subject I and Pedagogy of School Subject II) (best of the two lessons in each pedagogy course will be evaluated)	40
3.	Total 52 Lesson Plans (25 lesson plans in each pedagogy course and 1 lesson plan through the use of multimedia in each pedagogy course)	50
4.	Achievement Test Report (ATR) (In one Pedagogy Subject)	20
5.	Use of Teaching-Learning Material in Classroom Discourse (including teaching aids and reference material) (5 Teaching Aids/ Instructional Material each in pedagogy of School Subject I and Pedagogy of School Subject II)	40
6	Organising and maintaining the records of school activities	10
7	Peer Group observation (10 Lesson each in Pedagogy of School Subject I and Pedagogy of School Subject II)	10
8	Maintaining a Reflective Diary	10
<b>Total</b>		<b>200</b>

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

<b>Components</b>	<b>Internal Practical Examination</b>	<b>Internal Practical Examination</b>
<b>Weightage (%)</b>	<b>50</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>
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	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Develop observational skills and managerial skills required in schools	<b>PO7</b>
<b>CO2</b>	Understand pedagogical skills and to apply these skills in real teaching situations.	<b>PO6</b>
<b>CO3</b>	Develop a comprehensive and critical understanding of diversities, disabilities, marginalization and thier inclusion in education.	<b>PO3</b>
<b>CO4</b>	Implicit and explicit structures in our schools that act as a hindrance in including all students.	<b>PO10</b>
<b>CO5</b>	Understanding of steps and standards of developing e-content	<b>PO7</b>

		<b>Teaching Competencies</b>	<b>Effective Communication</b>	<b>Critical Thinking</b>	<b>Ethics</b>	<b>Life-long Learning</b>	<b>Sensitive towards Inclusion</b>	<b>Self -Development and Community Attachment</b>	<b>Technology Skills</b>	<b>Professional Competencies</b>	<b>General and Specific Need &amp; Problems</b>	<b>Pedagogical Content Analysis</b>	<b>Developmental Tasks</b>	<b>Diverse Needs:</b>	<b>Research and Entrepreneurial Skills:</b>
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED479	School Internship	2		3	3					2		3	3	3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>Programme and Course Mapping</b>														
<b>C O</b>	<b>P O 1</b>	<b>P O 2</b>	<b>P O 3</b>	<b>P O 4</b>	<b>P O 5</b>	<b>P O 6</b>	<b>P O 7</b>	<b>P O 8</b>	<b>P O 9</b>	<b>P O 10</b>	<b>P O 11</b>	<b>P S O 1</b>	<b>P S O 2</b>	<b>P S O 3</b>
<b>C O 1</b>							3					3		
<b>C O 2</b>						3							3	
<b>C O 3</b>			3											
<b>C O 4</b>										3				
<b>C O 5</b>														
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>A</b>	<b>Planning and Facilitating Teaching Learning</b>
Local	Classroom teaching Developing and Using Teaching Learning Resources
Regional	
National	
Global	ICT integration
Employability	Unit/ Lesson planning Lesson observation  ICT integration
Entrepreneurship	Lesson observation ICT integration
Skill Development	Unit/ Lesson planning Lesson observation Developing and Using Teaching Learning Resources ICT integration
Professional Ethics	Classroom teaching Lesson observation
Gender	
Human Values	Classroom teaching Developing and Using Teaching Learning Resources

Environment & Sustainability	
<b>B</b>	<b>Understanding School Context</b>
Local	Prepare Profile of the school (Type of School/infrastructure, facilities, teachers, students and community information)
Regional	Prepare Profile of the school (Type of School/infrastructure, facilities, teachers, students and community information)
National	
Global	
Employability	Prepare Profile of the school (Type of School/infrastructure, facilities, teachers, students and community information)
Entrepreneurship	Prepare Profile of the school (Type of School/infrastructure, facilities, teachers, students and community information)
Skill Development	Analyze Learner Performance
Professional Ethics	Prepare Profile of the school (Type of School/infrastructure, facilities, teachers, students and community information) Analyze Learner Performance
Gender	
Human Values	Prepare Profile of the school (Type of School/infrastructure, facilities, teachers, students and community information) Analyze Learner Performance
Environment & Sustainability	
<b>C</b>	<b>Understanding Learner</b>
Local	
Regional	
National	
Global	
Employability	Collecting information about a student
Entrepreneurship	
Skill Development	Collecting information about a student
Professional Ethics	Collecting information about a student
Gender	
Human Values	Collecting information about a student
Environment &	



Sustainability	
<b>D</b>	<b>Participation in School Activities</b>
Local	Organize all types of curricular activities, e.g. sports and games, debate, song, art, music, painting
Regional	Organize all types of curricular activities, e.g. sports and games, debate, song, art, music, painting
National	
Global	
Employability	Organize all types of curricular activities, e.g. sports and games, debate, song, art, music, painting
Entrepreneurship	
Skill Development	Organize all types of curricular activities, e.g. sports and games, debate, song, art, music, painting
Professional Ethics	
Gender	
Human Values	Organize all types of curricular activities, e.g. sports and games, debate, song, art, music, painting
Environment & Sustainability	
<b>E</b>	<b>Interaction with stakeholders of school</b>
Local	Interaction with SDMC/SMC members Interacting with parents, teachers and principal of the schools
Regional	Interaction with SDMC/SMC members
National	
Global	
Employability	Interacting with parents, teachers and principal of the schools
Entrepreneurship	Interaction with SDMC/SMC members Interacting with parents, teachers and principal of the schools
Skill Development	Interacting with parents, teachers and principal of the schools
Professional Ethics	Interaction with SDMC/SMC members Interacting with parents, teachers and principal of the schools
Gender	
Human Values	Interaction with SDMC/SMC members

	Interacting with parents, teachers and principal of the schools
Environment & Sustainability	
SDG	Quality primary/ Secondary Education for all (SDG4.1), Safe and Inclusive Learning Environments (SDG 4.a), Professional Development of Teachers (SDG 4.c)
NEP 2020	Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46) , Teachers (5.1- 5.29) , Equitable and Inclusive Education: Learning for All (6.1-6.20) Optimal Learning Environments and Support for Students (12.1-12.10) Teacher Education (15.1-15.11) Technology Use & Integration (23.1- 23.13) Financing: Affordable and Quality Education for All (26.1 -26.7)
POE/4 <sup>th</sup> IR	Practical Courses from Industry/Alumni , Technical Skills that match Industry Needs , Updated Curriculum, Focus on Employability Skills (Local/Regional and Global), Internship Programs / Employability , Skill Development , Internship , Hands-on Experience , Projects

<b>SEMESTER VIII</b>
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<b>SEED486A</b>	<b>GENDER AND SCHOOLING</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Gender Roles in society				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Develop basic understanding and familiarity with key concepts-gender, gender bias, gender stereotype, empowerment, gender parity, equity and equality, patriarchy and feminism and trans gender.
- Know about policies, plans and schemes of the government for addressing all forms of disparities and inequalities existing in the society
- Learn about gender issues in school, curriculum, textual materials across disciplines, pedagogical processes and its intersection with class, caste, religion and region; and
- Understand the need to address gender-based violence in all social spaces and evolve strategies for addressing it.

### Course Outcomes

On the completion of course the student-teachers will able to:

**CO1:** Explain key concepts related to gender and different feminist perspectives on education

**CO2:** Demonstrate familiarity with key policies, issues and debates around gender and education in contemporary India;

**CO3:** Analyze the ways in which societal institutions and power structures impact the material realities of women's lives.

**CO4:** Demonstrate adequate skills in listening, speaking and writing effectively, performing critical thinking and analysis, incorporating feminist theoretical perspective in problem solving and research methodology.

**CO5:** Examine gendered nature of school curriculum, textbooks, school processes, classrooms, teacher attitudes and peer conversation.

## **Catalog Description**

Permeating across boundaries of individual social science disciplines is the key pedagogic process unfolding in this course. This course will help students in understanding how social science inquiry necessarily includes experiences of interaction in and with society and the environment. Critical thinking, inquiry and search for evidence, examining text-based knowledge in social contexts are essential components of studying this course.

## **Course Content**

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### **Unit I:**

**15 Contact Hours**

#### **Gender Issues: Key Concepts**

- Gender, Social construction of Gender
- Gender socialization and Gender Roles
- Gender discrimination at different levels of institutions (institutions related to social, cultural, religious, economic, political and educational settings).

### **Unit II:**

**12 Contact Hours**

#### **Socialization Processes in India: Family, School and Society**

- Gender Identities and socialization practices in different types of families in India.
- Gender Concerns related to access, enrolment, retention, participation and overall achievement.
- Gender Issues in Curriculum
- Gender, Culture and Institution: Intersection of class, caste, religion and region
- Construction of gender in curriculum frameworks since Independence: An Analysis
- Gender and the hidden curriculum
- Gender in text and classroom processes
- Life skills and sexuality
- Vishakha Guidelines
- Domestic Violence Act,2005
- Reservation for Women
- Supreme Court Verdict about transgender (**Section 377** of the Indian Penal Code (IPC))

**Unit III:****12 Contact Hours****Creating Gender Inclusive Classroom**

- Developing positive self-concept and self-esteem among girls
- Teaching Learning Materials
- Classroom transaction
- Teacher as an agent of change

**Unit IV****10 Contact Hours****Practicum (Any two)**

- Analyse Textbooks of Class VI to X (of your State) from the Perspective of Gender Bias and Stereotypes.
- Organize Debates in Class on Equity and Equality cutting across Gender, Class, Caste, Religion, Ethnicity Disability and Region.
- Debates and Discussions on Violation of Rights of Girls and Women in our society.
- Analysis of Video Clipping on Portrayal of Women in Print and Audio-Video Media.
- Collection of Folklores reflecting Socialization Processes and its Influence on Identity formation.
- Observe Participation of Boys and Girls in different Activities in Heterogeneous Schools- Public and Private-Aided and managed by Religious Denominations and prepare a report.
- Collect material related to Women Role Models in various fields with Emphasis on Women in Unconventional Roles and prepare a brief report
- Collect thoughts of Eminent Men and Women of India on Girls Education and Women's Empowerment.
- Organize Poster Competition on Gender Equality And Empowerment.

**Text Book:**

1. NCERT (2006). National Curriculum Framework 2005: Position Paper, National Focus Group on Gender Issues in Education, NewDelhi.

**Advanced Readings:**

1. Desai, Neera and Thakkar, Usha. (2001). Women in Indian Society. National Book Trust, New Delhi.
2. Dunne, M. et al. (2003). Gender and Violence in Schools.UNESCO.

- Kirk Jackie (Ed) (2008). Women Teaching in South Asia, SAGE, NewDelhi

**Online References:**

- <https://swayam.gov.in>
- <http://www.ncte.nic.in>
- <http://egyankosh.ac.in>
- [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Students performance is based on continuous evaluation**

**Examination Scheme:**

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Explain key concepts related to gender and different feminist perspectives on education	PO11
CO2	Demonstrate familiarity with key policies, issues and debates around gender and education in contemporary India;	PO10
CO3	Analyze the ways in which societal institutions and power structures impact the material realities of women's lives.	PO7
CO4	Demonstrate adequate skills in listening, speaking and writing effectively, performing critical thinking and analysis, incorporating feminist theoretical perspective in problem solving and research methodology.	PO3
CO5	Examine gendered nature of school curriculum, textbooks, school processes, classrooms, teacher attitudes and peer conversation.	PO5

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 486A	Gender and Schooling			3		2		3			2	3		3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C	P	P	P	P	P	P	P	P	P	P	P	P	P	P
O	O	O	O	O	O	O	O	O	O	O	O	S	S	S
	1	2	3	4	5	6	7	8	9	10	11	O	O	O
C											3			
O										2			3	
1														
2							3							
3			3											
4					2									
5														

1=lightly mapped

2= moderately mapped

3=strongly mapped

<b>Unit I</b>	<b>Gender Issues: Key Concepts</b>
Local	
Regional	
National	
Global	Feminism and Waves of Feminism
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	Gender, Social construction of Gender
Human Values	Gender discrimination at different levels of institutions (institutions related to social, cultural, religious, economic, political and educational settings)
Environment & Sustainability	
<b>Unit II</b>	<b>Socialization Processes in India: Family, School and Society</b>
Local	Gender Identities and socialization practices in different types of families in India
Regional	Construction of gender in curriculum frameworks since Independence: An Analysis
National	Gender Concerns related to access, enrolment, retention, participation and overall achievement.
Global	
Employability	
Entrepreneurship	
Skill Development	Life skills and sexuality
Professional Ethics	
Gender	Gender Issues in Curriculum
Human Values	Supreme Court Verdict about transgender (Section 377 of the Indian Penal Code (IPC))
Environment & Sustainability	
<b>UNIT III</b>	<b>Creating Gender Inclusive Classroom</b>
Local	



Regional	Classroom transaction and processes
National	
Global	
Employability	
Entrepreneurship	
Skill Development	Teaching Learning Materials
Professional Ethics	
Gender	Developing positive self-concept and self-esteem among girls
Human Values	Teacher as an agent of change
Environment & Sustainability	
<b>Unit IV</b>	<b>Practicum (Any two)</b>
Local	Organize Debates in Class on Equity and Equality cutting across Gender, Class, Caste, Religion, Ethnicity Disability and Region
Regional	Organize Debates in Class on Equity and Equality cutting across Gender, Class, Caste, Religion, Ethnicity Disability and Region
National	
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	Organize Debates in Class on Equity and Equality cutting across Gender, Class, Caste, Religion, Ethnicity Disability and Region.
Human Values	Debates and Discussions on Violation of Rights of Girls and Women in our society.
Environment & Sustainability	
SDG	Goal 5: Gender Equality, Gender equality is not only a fundamental human right, but a necessary foundation for a peaceful, prosperous

	and sustainable world.
NEP 2020	6. Equitable and Inclusive Education: Learning for All
POE/4 <sup>th</sup> IR	

<b>SEED488A</b>	<b>INCLUSIVE EDUCATION</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Understanding of Diverse Needs				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Understand the meaning and significance of Inclusive education
- Gain knowledge on Policy and legislative frameworks promoting inclusion
- Learn to create inclusive classrooms using inclusive pedagogy – (teaching strategies, CCE)
- Understand the linkages and collaborations for resource mobilization.

### Course Outcomes

On the completion of the course student-teachers will be able to:

**CO1.** Analyse the paradigm shift of Inclusive education in terms of policies, facilities and provisions.

**CO2.** Summarise diverse needs of children at Physical, Psychological and Social-Cultural phases.

**CO3.** Face inclusive classrooms by using inclusive teaching strategies.

### Catalogue Description

The diversity in the society is a fact and the reflection of it in the school is natural. Traditionally these diversities were considered as inability of the individual to be able to meet the requirement of the school/classroom. Now diversities are considered as imposed by the

hurdles created by the society. Similarly the difficulties of students to learn in the classroom are due to the expectation of the system, architecture of the building and classroom, design of teaching and many other related factors. The philosophy underlying this course is that every student is unique and each one has the potentiality to learn. The management of individual difference is a social responsibility which a school has to accept. Creating a learning environment to provide opportunity to participate fully in the process of learning is the task for a teacher. This is a short course with an intention to develop a thought in the teacher which results in accepting all children in the class as his/her responsibility. This is a small beginning to a teacher towards a major change in the system and society. With this course it is expected that the teacher will reflect on the student whose deviant in the class as different who needs the input and attention like other students. Include case studies and interactions with eminent speaker, group discussions, book reviews, self-learning, ICT based teaching learning, visits to various schools (special, integrated and inclusive) and institutions (national and regional centres), viewing relevant documentaries and films, critical analysis and reflections.

## **Course Content**

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### **Unit I:**

**15 Contact Hours**

#### **Understanding Inclusion in Education**

- History of inclusion –paradigm shift from segregation to inclusion
- Policy perspective: Initiatives to promote inclusive education
- International Focus: Salamanca 1994, UNCRPD, EFA(MDG)
- National Focus: Constitutional obligations for education of diverse groups, NPE, 1986-92, PWD Act 1995, National Policy for PWD, 2006, revised PWD Bill 2012, RCI Act, NCF 2005 and NFG paper, SSA, RMSA, National Commission on Minority Education Institutions (NCMEI), National Commission for Education of SC,ST
- Educational concessions, facilities and provisions.

### **Unit II:**

**15 Contact Hours**

#### **Understanding Physical, Psychological and Social-Cultural Diversity**

- Diversity due to disability (Nature, Characteristic and Needs)

- Special needs of children with sensory disabilities
- Special needs of children with cognitive disabilities
- Special needs of children with physical disabilities
- Girls with disabilities- Issues, Challenges, and Supportive Programmes
- Diversity due to socio- cultural and economic factors
- Discrimination, language attitudes, violence and abuse.

**Unit III:**

**12 Contact Hours**

**Addressing Learners' Diversity**

- Curricular Issues
- Curriculum adaptation/modifications
- Content contextualization
- Assessment and Evaluation-- Continuous Comprehensive Evaluation (CCE), Alternative means for assessment and evaluation in inclusive classrooms
- Learning and learner support--assistive and adaptive devices, ICT
- Universal Design in Learning (UDL)
- Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process

**Unit IV:**

**15 Contact Hours**

**Practicum (Any Two)**

- During the internship period visit a nearby school. Observe the teaching learning processes, infrastructure available and assess the nature of inclusive practice. List the existing challenges and factors that promote inclusive practices. Please give justifications.
- Prepare the need profile of all children in a class. Critically analyze the profile thus prepared for establishing relation between students' needs and their abilities/disabilities. Identify relationship between students' needs and their socio- economic and educational status.
- Study the assessment and evaluation practices being followed in a school. Critically reflect on the practices in the context of inclusive education.

- Visit a nearby special, inclusive and regular school. Make observations in terms of time table, teaching learning activities, infrastructure, child to child interaction and parental support. Compare the practices.
- Carry out interaction with the regular teachers and ascertain the current challenges for promoting inclusive education. Try to collect their opinion on the subject. Talk to at least 25 teachers.
- Is inclusion a new concept? Find evidence of inclusion in Vedic era and trace the journey to modern times. Think. Reflect and Discuss.

### **Advanced Readings**

1. Ainscow, M., Dyson, A. and Booth, T. (2006). Improving Schools, Developing Inclusion. Routledge, London.
2. Hegarty, S. and Mithu, Alur (2002). Education and Children with Special Educational Needs- Segregation to Inclusion. Sage Publication, New Delhi
3. Jha, M. (2002). Inclusive Education for All: Schools without Walls. Heinemann Educational publishers, Multivista Global Ltd, Chennai.
4. Julka, A. (2006). Meeting Special Needs in Schools: A Manual. NCERT, New Delhi.
5. Julka, A. (2014). Teachers Creating Inclusive Classrooms: Issues and Challenges – A Research Study.
6. Julka, A. (2015). Including Children with Special Needs: Upper Primary Stage. NCERT, New Delhi.
7. Julka. A. (2012). Index of Inclusion. NCERT, New Delhi.
8. MHRD (2009). The Right of Children to Free and Compulsory Education Act, 2009. Ministry of Human Resource Development, New Delhi.
9. NCERT (2006). Position Paper : National Focus Group on Education of children with Special Needs. NCERT-DEGSN, New Delhi.
10. NCERT (2006). Position Paper: National Focus Group on Problems of Scheduled Castes and Scheduled Tribe Children. NCERT, New Delhi.
11. UNICEF (2003). Examples of Inclusive Education. UNICEF ROSA, Kathmandu.
12. World Bank (2003). Inclusive Education: Achieving Education for All including those with Disabilities and Special Educational Needs.

### **Online References**

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>

4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation:** Student's performance is based on continuous evaluation

**Examination Scheme:**

<b>Components</b>	<b>Attendance</b>	<b>Assignment</b>	<b>Mid Term-Exam</b>	<b>End Term Exam</b>
<b>Weightage (%)</b>	<b>10</b>	<b>20</b>	<b>20</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Analyse the paradigm shift of Inclusive education in terms of policies, facilities and provisions.	<b>PO3</b>
<b>CO2</b>	Summarise diverse needs of children at Physical, Psychological and Social-Cultural phases.	<b>PO10</b>
<b>CO3</b>	Face inclusive classrooms by using inclusive teaching strategies	<b>PO6</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED488A	Inclusive Education			3			3				3			3	

1= lightly mapped

2= moderately mapped

3=strongly mapped

<b>Programme and Course Mapping</b>														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1			3										3	
C O 2										3				
C O 3						3								
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Understanding Inclusion in Education
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Local	<p>History of inclusion –paradigm shift from segregation to inclusion  Policy perspective: Initiatives to promote inclusive education  International Focus: Salamanca 1994, UNCRPD, EFA(MDG)  National Focus: Constitutional obligations for education of diverse groups, NPE, 1986-92, PWD Act 1995, National Policy for PWD, 2006, revised PWD Bill 2012, RCI Act, NCF 2005 and NFG paper, SSA, RMSA, National Commission on Minority, NEP2020</p> <p>Education Institutions (NCMEI), National Commission for Education of SC,ST  Educational concessions, facilities and provisions.</p>
Regional	<p>History of inclusion –paradigm shift from segregation to inclusion  Policy perspective: Initiatives to promote inclusive education  International Focus: Salamanca 1994, UNCRPD, EFA(MDG)  National Focus: Constitutional obligations for education of diverse groups, NPE, 1986-92, PWD Act 1995, National Policy for PWD, 2006, revised PWD Bill 2012, RCI Act, NCF 2005 and NFG paper, SSA, RMSA, National Commission on Minority, NEP2020</p> <p>Education Institutions (NCMEI), National Commission for Education of SC,ST  Educational concessions, facilities and provisions.</p>
National	<p>History of inclusion –paradigm shift from segregation to inclusion  Policy perspective: Initiatives to promote inclusive education  International Focus: Salamanca 1994, UNCRPD, EFA(MDG)  National Focus: Constitutional obligations for education of diverse groups, NPE, 1986-92, PWD Act 1995, National Policy for PWD, 2006, revised PWD Bill 2012, RCI Act, NCF 2005 and NFG paper, SSA, RMSA, National Commission on Minority, NEP2020</p> <p>Education Institutions (NCMEI), National Commission for Education of SC,ST  Educational concessions, facilities and provisions.</p>
Global	<p>History of inclusion –paradigm shift from segregation to inclusion  Policy perspective: Initiatives to promote inclusive education  International Focus: Salamanca 1994, UNCRPD, EFA(MDG)  Educational concessions, facilities and provisions.</p>
Employability	<p>Policy perspective: Initiatives to promote inclusive education</p>



Entrepreneurship	
Skill Development	
Professional Ethics	Constitutional obligations for education of diverse groups
Gender	
Human Values	
Environment & Sustainability	
Unit II	
Local	Diversity due to disability (Nature, Characteristic and Needs) Special needs of children with sensory disabilities, Special needs of children with cognitive disabilities Special needs of children with physical disabilities Girls with disabilities- Issues, Challenges, and Supportive Programmes Diversity due to socio- cultural and economic factors Discrimination, language attitudes, violence and abuse.
Regional	Diversity due to disability (Nature, Characteristic and Needs) Special needs of children with sensory disabilities, Special needs of children with cognitive disabilities Special needs of children with physical disabilities Girls with disabilities- Issues, Challenges, and Supportive Programmes Diversity due to socio- cultural and economic factors Discrimination, language attitudes, violence and abuse.
National	Diversity due to disability (Nature, Characteristic and Needs) Special needs of children with sensory disabilities, Special needs of children with cognitive disabilities Special needs of children with physical disabilities Girls with disabilities- Issues, Challenges, and Supportive Programmes Diversity due to socio- cultural and economic factors Discrimination, language attitudes, violence and abuse.
Global	Diversity due to disability (Nature, Characteristic and Needs) Special needs of children with sensory disabilities, Special needs of children with cognitive disabilities Special needs of children with physical disabilities
Employability	Special needs of children with sensory disabilities, Special needs of children with cognitive disabilities Special needs of children with physical disabilities
Entrepreneurship	
Skill Development	Special needs of children with sensory disabilities, Special needs of children with cognitive disabilities

	Special needs of children with physical disabilities
Professional Ethics	Diversity due to disability (Nature, Characteristic and Needs)
Gender	Girls with disabilities- Issues, Challenges, and Supportive Programmes
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>Addressing Learners' Diversity</b>
Local	<p>Curricular Issues  Curriculum adaptation/modifications  Content contextualization  Assessment and Evaluation-- Continuous Comprehensive Evaluation (CCE),  Alternative means for assessment and evaluation in inclusive classrooms,  Learning and learner support--assistive and adaptive devices, ICT  Universal Design in Learning (UDL)  Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process</p>
Regional	<p>Curricular Issues  Curriculum adaptation/modifications  Content contextualization  Assessment and Evaluation-- Continuous Comprehensive Evaluation (CCE),  Alternative means for assessment and evaluation in inclusive classrooms,  Learning and learner support--assistive and adaptive devices, ICT  Universal Design in Learning (UDL)  Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process</p>
National	<p>Curricular Issues  Curriculum adaptation/modifications  Content contextualization  Assessment and Evaluation-- Continuous Comprehensive Evaluation (CCE),  Alternative means for assessment and evaluation in inclusive</p>

	<p>classrooms,</p> <p>Learning and learner support--assistive and adaptive devices, ICT Universal Design in Learning (UDL) Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process</p>
Global	<p>Alternative means for assessment and evaluation in inclusive classrooms,</p> <p>Learning and learner support--assistive and adaptive devices, ICT Universal Design in Learning (UDL)</p>
Employability	Learning and learner support--assistive and adaptive devices
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
<b>Unit IV</b>	<b>Practicum</b>
Local	<p>Observe the teaching learning processes, infrastructure available and assess the nature of inclusive practice. List the existing challenges and factors that promote inclusive practices. Please give justifications.</p>
Regional	<p>Prepare the need profile of all children in a class. Critically analyze the profile thus prepared for establishing relation between students' needs and their abilities/disabilities. Identify relationship between students' needs and their socio- economic and educational status</p>
National	<p>Study the assessment and evaluation practices being followed in a school. Critically reflect on the practices in the context of inclusive education.</p> <p>Visit a nearby special, inclusive and regular school. Make observations in terms of time table, teaching learning activities, infrastructure, child to child interaction and parental support. Compare the practices.</p>
Global	Is inclusion a new concept? Find evidence of inclusion in Vedic era and

	trace the journey to modern times. Think. Reflect and Discuss.
Employability	Observe the teaching learning processes, infrastructure available and assess the nature of inclusive practice.
Entrepreneurship	
Skill Development	the assessment and evaluation practices being followed in a school. Critically reflect on the practices in the context of inclusive education.
Professional Ethics	Identify relationship between students' needs and their socio- economic and educational status
Gender	
Human Values	
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education, vocational skills, 4.aBuild and upgrade education facilities that are child, disability and gender sensitive and provide safe, non-violent, inclusive and effective learning environments for all
NEP 2020	6. (6.1) Equitable and Inclusive Education: Learning for All 6.2- bridging gender and social category gaps in all levels of school education,
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

<b>SEED490A</b>	<b>Environmental Education</b>	L	T	P	C
<b>Version 2.0</b>		4	0	0	4
<b>Pre-requisites/Exposure</b>	Basics of environmental sciences				
<b>Co-requisites</b>	--				

### Course Objectives

The student-teachers will be able to:

- To understand and reflect on the concept and characteristics of environmental education.
- To develop awareness, understanding and concern about environment and associated problems, and to develop knowledge, skills, attitudes, motivation and commitment to work individually and collectively towards their solutions and prevention of new ones.
- To develop skills needed to link theoretical understanding with practical/applied aspects.
- To impart the values of sustainability and encourage them to make their contribution towards the conservation of environment.

### Course Outcomes

On completion of this course the student-teachers will be able to:

**CO1:** Understand and explain the relevance of environmental education for the students at elementary level.

**CO2:** Develop knowledge, skills, attitudes, motivation and commitment to work individually and collectively towards the conservation of environment.

**CO3:** Develop skills needed to link theoretical understanding with practical/applied aspects.

**CO4:** Understand and value the concept of sustainability and impart these values further.

### Catalog Description

The quality of our lives is increasingly depending on our environment where we are. However, along with the development of the economy, science and technology environmental problems appear more and more with a higher frequency in everywhere and every time in the global. And so people have cared more and more about environment and given many solutions

to solve environmental problems, Environmental Education (EE) being one of them. EE was born by the demands to protect the environment and by the higher understanding about the environment. EE helps everyone to learn about the environment and adjust their attitudes to a more environmentally friendly way of living and EE became a part of the educational system. The term “Environmental Education” appeared at the first time at the first IUCN conference in Paris in, but it was defined and recognized officially in 1962 by Rachel Carson. And through the last over 50 years, EE has been defined and redefined. Over a period of time the concept of EE has evolved. EE is defined as the process of recognizing values and clarifying concepts in order to develop skills and attitudes necessary to understand and appreciate the interrelatedness among man, his/ her culture and his/ her biophysical surroundings. Environmental Education also entails practice in decision making and self-formulation of a code of behaviour about issues concerning environmental quality”. EE is a way forward for Sustainable Development. In recent time EE for Sustainable Development is reemphasized (EESD). EESD has four major focuses: (1) improving the quality of and access to basic education, (2) reorienting existing education to address sustainability, (3) improving public awareness, and (4) providing training for business, industry, and government.

## **Course Content**

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### **Unit I:**

**15 Contact Hours**

#### **Nature and Scope of Environmental Education**

Nature, need and scope of environmental education and its conservation, Environmental education: a way of implementing the goals of environmental protection, Present status of environmental education at various levels, India as a mega biodiversity Nation, Different ecosystems at national and global level, Role of individual in conservation of natural resources: water, energy and food, Role of individual in prevention of pollution: air and water, Equitable uses of resources for sustainable livelihoods, Environmental legislation: awareness and issues involved in enforcement, Role of information technology and media in environment awareness/consciousness

### **Unit II:**

**12 Contact Hours**

#### **Community Participation and Environment**

Community participation in natural resource management – water, forests, etc., Change in forest cover over time, Deforestation in the context of tribal life, Sustainable land use management, Traditional knowledge and biodiversity conservation, Developmental projects, including Government initiatives and their impact on biodiversity conservation, Issues involved in enforcement of environment legislations

**Unit III:**

**12 Contact Hours**

**Environmental Issues and Concerns**

Consumerism and waste generation and its management, Genetically-modified crops and food security: Impacts positive and negative, Water consumption pattern in rural and urban settlement, Ethno-botany and its role in the present day world, Environmental degradation and its impact on the health of people, Economic growth and sustainable consumption, Organic farming, Agricultural waste: Their impact and management, Rain water harvesting and water resource management, Biomedical waste management, Changing patterns of energy and water consumption, Environment Social Governance (ESG): History, Environmental Concerns: climate crisis and environmental sustainability, Social concerns: diversity and human rights

**Unit IV:**

**12 Contact Hours**

**Initiatives by various Agencies for Environment Education**

Environmental conservation in the globalized world in the context of global problem, Alternative sources of energy, Impact of natural-disaster/man-made disaster on environment, Biological control for sustainable agriculture, Heat production and greenhouse gas emission, Impact of industry/mining/transport on environment, Sustainable use of forest produces, Governmental and non-government initiatives, Supreme Court order implementation of Environmental Education (EE)

**Suggested Text Books**

1. NCERT (2008). Source Book on Assessment for Classes I–V, Environmental Studies, New Delhi: NCERT.
2. Tomar, A. (2007). *Environmental education*. Kalpaz Publications.

**Advanced Readings**

1. Kochar SK (1989) Methods and techniques of teaching. Sterling publications, New Delhi.
2. SCERT (2011). Paryavaran adhyayan aur vigyan shikshan, D.El.Ed.-ODL Course:

Chhattisgarh.

3. SCERT (2012/2013). We-Our environment, EVS Textbooks (3-5): Andhra Pradesh.
4. UNESCO (1990). An Environmental Education Approach to the Training of Middle Level.
5. UNICEF (2008). Best Practice Guidelines for teaching Environmental Studies in Maldivian Primary Schools: UNICEF.

### Online References

1. <https://swayam.gov.in>
2. <http://www.ncte.nic.in>
3. <http://egyankosh.ac.in>
4. [www.ignou.ac.in](http://www.ignou.ac.in)

**Modes of Evaluation: Students performance is based on continuous evaluation**

### Examination Scheme:

Components	Attendance	Assignment	Mid Term-Exam	End Term Exam
Weightage (%)	10	20	20	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Understand and explain the relevance of environmental education for the students at elementary level.	PO1
CO2	Develop knowledge, skills, attitudes, motivation and commitment to work individually and collectively towards the conservation of environment.	PO4
CO3	Develop skills needed to link theoretical understanding with practical/applied aspects.	PO3
CO4	Understand and value the concept of sustainability and impart these values further.	PO7



		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED490A	Environmental Education	3		3	3			3				2	2		3

1= lightly mapped

2= moderately mapped

3=strongly mapped

Programme and Course Mapping														
C O 1	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1	3											2		
C O 2				3										3
C O 3			3											
C O 4							3							
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

<b>Unit I</b>	<b>Nature and Scope of Environmental Education</b>
Local	Nature, need and scope of environmental education and its conservation
Regional	Present status of environmental education at various levels
National	India as a mega biodiversity Nation, Different ecosystems at national and global level
Global	Different ecosystems at national and global level
Employability	Role of information technology and media in environment awareness/consciousness
Entrepreneurship	
Skill Development	Environmental education: a way of implementing the goals of environmental protection
Professional Ethics	Environmental legislation: awareness and issues involved in enforcement
Gender	
Human Values	Role of individual in conservation of natural resources: water, energy and food, Role of individual in prevention of pollution: air and water
Environment & Sustainability	Equitable uses of resources for sustainable livelihoods
<b>Unit II</b>	<b>Community Participation and Environment</b>
Local	Community participation in natural resource management – water, forests, etc.
Regional	Change in forest cover over time, Deforestation in the context of tribal life
National	Traditional knowledge and biodiversity conservation, Developmental projects, including Government initiatives and their impact on biodiversity conservation
Global	Developmental projects
Employability	Traditional knowledge and biodiversity conservation
Entrepreneurship	Developmental projects
Skill Development	
Professional Ethics	Issues involved in enforcement of environment legislations
Gender	
Human Values	Community participation in natural resource management – water, forests, etc.
Environment & Sustainability	Sustainable land use management
<b>Unit III</b>	<b>Environmental Issues and Concerns</b>
Local	Consumerism and waste generation and its management, Genetically-modified crops, Agricultural waste: Their impact and management, water

	resource management
Regional	Water consumption pattern in rural and urban settlement , food security: Impacts positive and negative
National	Ethno-botany and its role in the present-day world, Rain water harvesting
Global	Environmental degradation and its impact on the health of people, Environmental Concerns: climate crisis
Employability	Organic farming
Entrepreneurship	Biomedical waste management, Changing patterns of energy and water consumption
Skill Development	Organic farming
Professional Ethics	Environment Social Governance (ESG): History, diversity and human rights
Gender	
Human Values	water resource management
Environment & Sustainability	environmental sustainability, Social concerns: diversity and human rights
<b>Unit IV</b>	<b>Initiatives by various Agencies for Environment Education</b>
Local	Impact of natural-disaster/man-made disaster on environment ,
Regional	Biological control for sustainable agriculture
National	Alternative sources of energy
Global	Environmental conservation in the globalized world in the context of global problem
Employability	Governmental and non-government initiatives
Entrepreneurship	
Skill Development	Heat production and greenhouse gas emission
Professional Ethics	Supreme Court order implementation of Environmental Education (EE)
Gender	
Human Values	Impact of industry/mining/transport on environment,
Environment & Sustainability	Supreme Court order implementation of Environmental Education (EE)
SDG	Implement nationally appropriate social protection systems and measures for all, Create sound policy frameworks Safe and Inclusive Learning Environments
NEP 2020	Curriculum and Pedagogy in Schools, Teachers, Equitable and Inclusive Education: Learning for All, Towards a More Holistic and Multidisciplinary Education Technology Use & Integration
POE/4 <sup>th</sup> IR	Simulation and Technical Skills that match Industry Needs

<b>SEED492A</b>	<b>RESEARCH PROJECT II (EDUCATIONAL ISSUE)</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Research And Methodology				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Undertake reflective enquiry through classroom based research.
- Enhance the skills of systematic observation and documentation.
- Pursue reflective teaching classroom-based research.

### Course Outcomes

On the completion of the course the student-teachers will be able to:

**CO1:** Develop knowledge, Understanding and an insight of the various underlying concepts of research.

**CO2:** Understand Research designs, tools and techniques of gathering data.

**CO3:** Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.

**CO4:** Explore educational research problems and prepare and present a research proposal

**CO5:** Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.

### Catalogue Description

Educational research is a more formal, focused and an intensive process of carrying out a scientific method of analysis. The main purpose of educational research is focused upon scientific investigation and provides solutions to the problems in the field of education. Research in education represents an activity, directed towards the development of an organized body of scientific knowledge about the events with which educators are concerned. Educational research is the part of behavioural sciences, in which, emphasis has been put upon understanding, explaining, predicting and to some degree controlling human behaviour. Research in education is use of the methods of scientific analysis to produce information,

needed to make improvements in educational planning, decision making, teaching and learning, curriculum development, understanding of children and youth, use of instructional media, school organization and education management

## Course Content

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### Project Work

1. Every student is required to take up project work in specific area of interest .Project work is designed to initiate students into a process of scientific enquiry, through classroom based research, Small projects on specific themes such as miscue analysis, gender stereotypes, error analysis, children’s understanding of specific concepts and so on can be taken. Students will be acquainted on Basics of Research.
2. Student intern may use their experience of teaching in identifying project theme, and undertake the task of data-collection during internship. Each individual project will be conducted under the guidance of a faculty member.
3. Each Student expected to understand two or three small projects. These could be related to pedagogy subject to language or may be based on any of the foundation and specialized courses of fourth year.
4. It is expected that the research undertaken will enable students to cultivate skills of systematics observation, documentation, critical analysis and interpretation. This will create a teacher oriented towards probing into children’s learning processes with objective of improving classroom practices.
5. Students will be expected to submit a short report on each project.

**Each project will be assessed by the supervisors using the following basis and criteria**

S. No.	Basis	Criteria
1	Introduction of the concept undertaken for research	<ul style="list-style-type: none"> <li>• Theoretical and research status</li> <li>• Methodology</li> </ul>
2	Data collection	<ul style="list-style-type: none"> <li>• Authenticity</li> <li>• Richness and detail in records</li> </ul>
3	Analysis and Interpretation	<ul style="list-style-type: none"> <li>• Framework used</li> <li>• Link with theory</li> </ul>

		<ul style="list-style-type: none"> <li>• Presentation</li> <li>• Comprehensiveness</li> <li>• Use of Examples from raw-data</li> </ul>
4	Implications	<ul style="list-style-type: none"> <li>• Inferences</li> <li>• How do the research findings inform Practice?</li> </ul>

### Advanced Readings:

1. Best and Kahn, Research Methodology, PHI Limited.
2. Business Research Methods – Alan Bryman & Emma Bell, Oxford University Press.
3. Design of Experience: Statistical Principles of Research Design and Analysis, by Robert
4. Fundamentals of modern statistical methods by Rand R.wilcox.
5. Kerlinger, Foundation of Research.
6. Kothari, C.R. Research Methodology (Methods and Techniques), New Age Publisher.
7. Power Analysis for Experimental research A Practical Guide for the Biological, Medical and social Sciences by R. Barker Bausell, Yi-Fang Li Cambridge University Press.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

### Examination Scheme:

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

### Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes

<b>CO1</b>	Develop knowledge, Understanding and an insight of the various underlying concepts of research.	<b>PO3</b>
<b>CO2</b>	Understand Research designs, tools and techniques of gathering data.	<b>PO3</b>
<b>CO3</b>	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	<b>PO3</b>
<b>CO4</b>	Explore educational research problems and prepare and present a research proposal	<b>PO3</b>
<b>CO5</b>	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	<b>PO10</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self -Development and Community	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental Tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED492A	Research Project II(Educational Issues)			3	3								3	3	

	Project Work
Local	
Regional	

National	
Global	
Employability	Every student is required to take up project work in specific area of interest .Project work is designed to initiate students into a process of scientific enquiry, through classroom based research, Small projects on specific themes such as miscue analysis, gender stereotypes, error analysis, children’s understanding of specific concepts and so on can be taken. Students will be acquainted on Basics of Research. Students will be expected to submit a short report on each project
Entrepreneurship	
Skill Development	classroom-based research, It is expected that the research undertaken will enable students to cultivate skills of systematics observation, documentation, critical analysis and interpretation. This will create a teacher oriented towards probing into children’s learning processes with objective of improving classroom practices. Students will be expected to submit a short report on each project
Professional Ethics	Student intern may use their experience of teaching in identifying project theme, and undertake the task of data-collection during internship. Each individual project will be conducted under the guidance of a faculty member. Students will be expected to submit a short report on each project
Gender	
Human Values	It is expected that the research undertaken will enable students to cultivate skills of systematics observation, documentation, critical analysis and interpretation. This will create a teacher oriented towards probing into children’s learning processes with objective of improving classroom practices
Environment & Sustainability	
SDG	SDG 4 Quality education, Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all, Quality Education,
NEP 2020	11.Towards a More Holistic and Multidisciplinary Education, (11.2 increased creativity and innovation, critical thinking and higher-order thinking capacities, problem-solving abilities, teamwork, communication skills) 5.27 assimilated from these approaches into the pedagogies being practiced in India
POE/4 <sup>th</sup> IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability



<b>SEED494A</b>	<b>RESOURCE CENTER DEVELOPMENT</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Pre-requisites/Exposure</b>	Designing Learning Material				
<b>Co-requisites</b>	--				

### Course Objectives

The student- teacher will be able to:

- Culminate the process of school internship into a center for resources.
- Develop the skill of collecting resource material from different capacity for their teaching learning process.

### Course Outcome

On the completion of course student-teachers will be able to:

**CO1.** Develop Resource Centre in the vicinity of the University

**CO2.** Collate varied teaching learning resources to serve for elementary school teacher

**CO3.** Record the reflective insight through the process of developing resource centre.

### Course Content

The objective of this course for students is to culminate the process of school internship into a center for resources. It is envisioned that the subsequent batches of students would build the resources further. This would initiate the process of innovation in the internship schools, thus creating possible changes in teaching –learning practices.

All student-teachers, in a given school, would collate resources they have used during their teaching. Such resources would include the description of activities designed, material required, teaching aids, supplementary learning material, and a record of reflective insight into the transaction process.

Student-teachers will be required to collate teaching-learning material that they have used, including books, children’s literature, problem-solving tasks and games. In addition, students need to spend time on identifying children’s literature and other educational material that could serve well for elementary school teacher. The resource center needs to be set-up under the facilitation and guidance of faculty supervisors.

Each student-teachers contribution will be assessed individually and in groups, using the following basis and criteria.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

Components	Internal Practical Examination	Internal Practical Examination
Weightage (%)	50	50

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

Mapping between COs and POs		
	Course Outcomes (COs)	Mapped Programme Outcomes
CO1	Develop Resource Centre in the vicinity of the University	PO11
CO2	Collect varied teaching learning resources to serve for elementary school teacher	PO7
CO3	Record the reflective insight through the process of developing resource centre.	PO5

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self - Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs:	Research and Entrepreneurial Skills:
Course Code	Course Title	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PS O1	PS O2	PS O3
SEED49	Resource					3		3				3	3	3	

4A	Center Developm ent														
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Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	P S O 1	P S O 2	P S O 3
C O 1											3	3		
C O 2							3						3	
C O 3					3									
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	
Local	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
Regional	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
National	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
Global	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
Employability	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
Entrepreneurship	
Skill Development	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
Professional Ethics	Pedagogy Based- • Choice of Activity • Design of Activity, • Use of Activity, • Presentation (video) and Records.
Gender	
Human Values	
Environment & Sustainability	
Unit II	
Local	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
Regional	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
National	Children's Literature-Based - • Choice in terms of age, • Rationale and

	relevance use of Books • Link with activities
Global	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
Employability	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
Entrepreneurship	
Skill Development	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
Professional Ethics	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
Gender	
Human Values	Children's Literature-Based - • Choice in terms of age, • Rationale and relevance use of Books • Link with activities
Environment & Sustainability	
<b>Unit III</b>	
Local	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
Regional	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
National	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
Global	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
Employability	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
Entrepreneurship	
Skill Development	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
Professional Ethics	Problem Solving Task- Choice in terms of age and relevance • Link with activities and pedagogy • Categorization and a system of access and retrieval • Space organisation • Local teacher's involvement • Individual initiative and involvement
Gender	
Human Values	
Environment &	

Sustainability	
Unit IV	
Local	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process.
Regional	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process.  Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development
National	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process. Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development
Global	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process. Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development
Employability	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process. Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development
Entrepreneurship	
Skill Development	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process. Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development
Professional Ethics	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process. Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development
Gender	
Human Values	Teaching Aids Used during Internships - description of activities designed, material required, supplementary learning material, and a record of reflective insight into the transaction process. Plan of Process to be undertaken for Future Development of Resource Centre - Visits to existing Resource centers • Plan of Process to be undertaken for future development

Environment & Sustainability	
SDG	Pedagogy Based, Children's Literature-Based, Children's Games, Problem Solving Task, activities were undertaken through best out of waste, roll ball with general knowledge questions, matching pairs (flashcards of opposite words and match the pairs with appropriate), brain boosting patterns activity (series of different patterns asking students to identify the next pattern)
NEP 2020	Foundational Literacy and Numeracy: An Urgent & Prerequisite to Learning (2.1-2.9), Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46), Optimal Learning Environments and Support for Students (12.1-12.10)- Activities undertaken 1. Water Cycle -A model will be prepared and a demonstration will be given. class Vth tree ( topic-kriya) 2. Storytelling of Trees and Birds where the verbs will be indicated as part of the story. flash cards will be used for the verbs (kriya) and activities will be given on kriya with some physical activity -Class -III 3. e-book (Story narration with animated characters)- class III, Crosswords - States and its capital in the form of hints ( methodology in process)
POE/4 <sup>th</sup> IR	Gender Equality and Equal Access for All (SDG 4.5), Professional Development of Teachers (SDG 4.c), Skill Development, Hands-on Experience, Student-teachers will be required to collate teaching-learning material that they have used, including books, children's literature, problem-solving tasks and games. In addition, students need to spend time on identifying children's literature and other educational material that could serve well for elementary school teacher. The resource center needs to be set-up under the facilitation and guidance of faculty supervisors

<b>SEED496A</b>	<b>UNDERSTANDING ICT AND ITS APPLICATION</b>	L	T	P	C
<b>Version 2.0</b>		0	0	4	2
<b>Prerequisites/Exposure</b>	Basic knowledge of technology				
<b>Co-requisites</b>	--				

### **Course Objectives**

The course will enable the student-teachers to:

- Appreciate the historical development of various educational media.
- Demonstrate understanding of the main components of the computer hardware in use.
- Use various digital technologies (hardware and software) for creating resources and providing learning experiences for all types of learners (including differently abled).
- Use various ICTs for project based/problem-based constructivist learning environment.
- Explain the role of ICT in authentic and alternative assessment.
- Understand the social, economic, and ethical issues associated with the use of ICT.

### **Course Outcomes**

On the completion of the course the student-teachers will be able to:

**CO1.** Create technology integrated resources for flipped classroom.

**CO2.** Demonstrate different ICT tools for creating and facilitating learning.

**CO3.** Conduct the blended teaching for ICT enabled learning experience.

### **Catalogue Description**

Preparing teachers to use technology in a classroom is an important step for ICT enabled education in the country. The present course focuses on moving beyond computer literacy and ICT-aided learning, to help student-teachers interpret and adapt ICTs in line with educational aims and principles. It explores ICTs along three broad strands: teaching-learning, administrative and academic support systems, and broader implications for society. The course will help student-teachers reflect critically and act responsibly to prevent use of ICTs to support centralization of larger knowledge structures; it will show student-teachers how ICTs can be adapted to support decentralized structures and processes; as well as build the 'digital public' to make education a participatory and emancipatory process.

## Course Content

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### Unit I:

**12 Contact Hours**

#### Introduction to Information and Communication Technology

- Use of Technology in Education: In Retrospect.
- Information and Communication Technology: Meaning, nature and advantages.
- Hardware and Software Fundamentals
  - *Hardware Fundamentals*  
Anatomy, block-diagram and overview of components, CPU, main memory, input & output devices, storage devices), types of computers.
    - Use of digital camera, recorder, scanner, printer, interactive white board, visualizer, and multimedia projector for creating and using multimedia resources
  - *Software Fundamentals*  
Software - Meaning and types; System software: Operating systems such as Windows, Linux, Mac OS; Application software: Work, communication and other productivity tools.
    - Introduction to office applications (Word processing, Spreadsheet  
Presentations, Databases, Drawing tools, Multimedia tools, File formats and conversion, utility tools
- Computer Networks- Internet, Intranet & applications. Network fundamentals.

### Unit II:

**15 Contact Hours**

#### ICT and Pedagogy

- Approaches to integrating ICT in teaching and learning:
  - Technological Pedagogical Content Knowledge (TPC)
  - Subject specific ICT tools for creating pedagogical innovations, facilitating and integrated learning.
  - Assistive technology for children with special needs: Tools and processes; Universal Design for Learning (UDL)
- Flipped Classrooms: Meaning and Possibilities.



- ICT Platform for Learning- Swayam, Swayam Prabha, Nishtha
- Mobile learning and related applications
- Open Educational Resources - Meaning and importance, various OER initiatives.
  - Massive Open Online Courses (MOOC)-Concept and Use
- Project/Problem Based Learning (PBL): Role of ICT in developing technology integrated PBL unit.
- Web Quest and Virtual Field Trips: Concept, process, and use in the classroom.

### **Unit III:**

**12 Contact Hours**

#### ICT for Assessment and Management

- Electronic Assessment Portfolio - Concept and types of e-portfolio tools
  - Creating and use of electronic rubrics for assessment.
- Online and offline assessment tools - Rubrics, survey tools, puzzle makers, test generators, reflective journal, question bank
  - ICT applications for CCE
  - Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process.

### **Unit IV:**

**12 Lecture Hours**

#### Practicum (Any Two)

- A critical study of any e-learning course.
- Completing any free e- learning course.
- Creating a simple 2D animation using pencil or Tupi.
  - Creating account in teacher tube/ slide share and sharing video/presentation
  - Creating account in wikispace /Wikipedia/mediawiki and adding/editing content.
- Creating and editing various graphics.
- Creating digital concept maps, flow charts, timelines for a particular content.
- Creating resources for flipped classroom for teaching practice.
- Creating social bookmarking account using any social bookmarking tools (diigo, delicious, stumble upon, Shelfari).

- Creating, sharing and evaluating OER materials.
- Creating, Evaluating and Uploading RLO repositories in the support of instruction and learning.
- Developing an e-content on any topic using eXe Learning.
- Developing an educational blog in [www.blogger.com](http://www.blogger.com), [www.wordpress.com](http://www.wordpress.com) or [www.edublog.com](http://www.edublog.com)
- Developing an electronic assessment portfolio.
- Developing an electronic teaching portfolio.
- Developing technology integrated unit/lesson plans for trying out in schools.
- Field visit to the EDUSAT center and take part in teleconferencing.
- Hands on experience in setting up a desktop PC and working with various input devices, output devices, storage devices, and display devices.
- Hands on experience on subject specific software tools like Geogebra, PhET, Stellarium, etc.
- Interview of computer hardware engineer/ICT specialist regarding Hardware planning, evaluation, maintenance and upgradation.
- LMS Experience- hands on various features of LMS - the ICT course may be provided through LMS.
- Locating internet resources - navigating, searching, selecting, saving and evaluating (use standard internet evaluation criteria).
- Organize web conferencing using Skype/Yahoo Messenger/Google+
- Planning and creating digital rubrics for any topic.
- Practice in installing various system and application software.
- Practicing word processing using Indian language software.
- Readings on emerging ICT trends in education.
- Review of ICT Labs (plans and equipments/resources) of school from internet.
- Review of national education policy 2020 with regards to ICT and its interventions in curriculum.
- Shooting, editing, and sharing of videos segment on any educational topic.
- Taking part in an ICT integrated online project based or problem-based learning activity.
- Using FOSS tools for developing timetable, grade sheet, etc.

- Using word processor, spread sheet, and presentation software to produce various teaching learning resources and sharing it online

### **Suggested Textbooks**

1. Ahmad, J., Ahmad, M.S. & Khan, A. (2012), Computer Applications in Education, Neelkamal Publications Pvt. Ltd., Hyderabad, ISBN: 978-81-8316-293-7.
2. Dash, Manoj Kumar (2010). ICT in Teacher Development. Neel Kamal Publications, New Delhi.

### **Advanced Readings**

1. Bharihok, D. (2000). Fundamentals of Information Technology. *Pentagon Press, New Delhi.*
2. C.E.M.C.A. (2014). Technology Tools for Teachers. *Commonwealth Educational Media Center for Asia, New Delhi.*
3. Dash, Manoj Kumar (2010). ICT in Teacher Development. *Neel Kamal Publications, New Delhi.*
4. David, M. (2009). Project Based Learning - Using Information Technology, Second Edition. *Viva Books, New Delhi.*
5. Government of India (2004 and revised 2010). National ICT @ Schools Scheme, Department of School Education and literacy, MHRD, Govt. of India, New Delhi.
6. Government of India (2012). National Mission on Education through ICTs (NME-ICT), Department of Higher Education, MHRD, Govt. of India, New Delhi.
7. James, K. L. (2003). The Internet: A User's Guide. *Prentice Hall of India, New Delhi.*
8. Kumar, Pradeep (2011). Web Resources in Pedagogy. *Apple Academics, Oakville.*
9. Mishra, S. (Ed.) (2009). STRIDE Hand Book 08: E-learning, IGNOU, New Delhi ([http://webservice.ignou.ac.in/institute/STRIDE\\_Hb8\\_webCD/STRIDE\\_Hb8\\_index.html](http://webservice.ignou.ac.in/institute/STRIDE_Hb8_webCD/STRIDE_Hb8_index.html)).
10. Mohanty, Laxman and Vora, Neeharika (2008). ICT Strategies for Schools - A Guide for School Administrators. *Sage Publications, New Delhi.*

11. Mohit, K. (2003). Design and implementation of Web-enabled Teaching Tools. *IRM Press, UK*.
12. NCERT (2013). Information and Communication Technology for School System: Curricula for ICTs in Education (Students and Teachers), Version 1.2. CIET-NCERT, NCERT, New Delhi ([www.ictcurriculum.gov.in](http://www.ictcurriculum.gov.in)).
13. NCERT (2013). National Repository of Open Educational resources (NROER), CIET-NCERT, NCERT, New Delhi ([www.nroer.gov.in](http://www.nroer.gov.in)).
14. Semenov, Alexy (2005). Information and Communication Technologies in Schools - A Handbook for Teachers, UNESCO.
15. UNESCO (2002). UNESCO Report: Information and Communication Technologies in Teacher Education - A Planning Guide, Division of Higher Education, UNESCO.
16. UNESCO (2002). UNESCO Report: Information and Communication Technology in Teacher Education - A Curriculum for Schools and Programme of Teacher Development, Division of Higher Education, UNESCO.

**Modes of Evaluation: Conduct of Experiment/ Viva Voce/ Project Work/ Lab Record**

**Examination Scheme:**

<b>Components</b>	<b>Internal Practical Examination</b>	<b>Internal Practical Examination</b>
<b>Weightage (%)</b>	<b>50</b>	<b>50</b>

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Create technology integrated resources for flipped classroom.	<b>PO10</b>
<b>CO2</b>	Demonstrate different ICT Tools for creating and	<b>PO1</b>

	facilitating learning.	
<b>CO3</b>	Conduct the blended teaching for ICT enabled learning experience.	<b>PO8</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs:	Research Ethics and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED496A	Understanding ICT and its Application	3							3		3			3	

Programme and Course Mapping														
C O	P O 1	P O 2	P O 3	P O 4	P O 5	P O 6	P O 7	P O 8	P O 9	P O 10	P O 11	PS O 1	PS O 2	PS O 3
C O 1										3			3	
C O 2	3													3
C O 3								3						
1=lightly mapped					2= moderately mapped					3=strongly mapped				

1= lightly mapped

2= moderately mapped

3=strongly mapped

Unit I	Introduction to Information and Communication Technology
Local	<p>Use of Technology in Education: In Retrospect.</p> <p>Information and Communication Technology: Meaning, nature and advantages.</p> <p>Hardware and Software Fundamentals</p> <p><i>Hardware Fundamentals</i></p> <p>Anatomy, block-diagram and overview of components, CPU, main memory, input &amp; output devices, storage devices), types of computers.</p> <p>Use of digital camera, recorder, scanner, printer, interactive white board, visualizer, and multimedia projector for creating and using multimedia resources</p> <p><i>Software Fundamentals</i></p> <p>Software - Meaning and types; System software: Operating systems such as Windows, Linux, Mac OS; Application software: Work, communication and other</p>

	<p>productivity tools.</p> <p>Introduction to office applications (Word processing, Spreadsheet Presentations, Databases, Drawing tools, Multimedia tools, File formats and conversion, utility tools</p> <p>Computer Networks- Internet, Intranet &amp; applications. Network fundamentals.</p>
Regional	
National	
Global	
Employability	<p>Use of Technology in Education: In Retrospect.</p> <p>Information and Communication Technology: Meaning, nature and advantages.</p> <p>Hardware and Software Fundamentals</p> <p><i>Hardware Fundamentals</i></p> <p>Anatomy, block-diagram and overview of components, CPU, main memory, input &amp; output devices, storage devices), types of computers.</p> <p>Use of digital camera, recorder, scanner, printer, interactive white board, visualizer, and multimedia projector for creating and using multimedia resources</p> <p><i>Software Fundamentals</i></p> <p>Software - Meaning and types; System software: Operating systems such as Windows, Linux, Mac OS; Application software: Work, communication and other productivity tools.</p> <p>Introduction to office applications (Word processing, Spreadsheet</p>

	<p style="text-align: center;">Presentations, Databases, Drawing tools, Multimedia tools, File formats and conversion, utility tools</p> <p style="text-align: center;">Computer Networks- Internet, Intranet &amp; applications. Network fundamentals</p>
Entrepreneurship	
Skill Development	<p>Use of Technology in Education: In Retrospect.</p> <p>Information and Communication Technology: Meaning, nature and advantages.</p> <p>Hardware and Software Fundamentals</p> <p><i>Hardware Fundamentals</i></p> <p>Anatomy, block-diagram and overview of components, CPU, main memory, input &amp; output devices, storage devices), types of computers.</p> <p style="text-align: center;">Use of digital camera, recorder, scanner, printer, interactive white board, visualizer, and multimedia projector for creating and using multimedia resources</p> <p><i>Software Fundamentals</i></p> <p>Software - Meaning and types; System software: Operating systems such as Windows, Linux, Mac OS; Application software: Work, communication and other productivity tools.</p> <p style="text-align: center;">Introduction to office applications (Word processing, Spreadsheet</p> <p style="text-align: center;">Presentations, Databases, Drawing tools, Multimedia tools, File formats and conversion, utility tools</p> <p style="text-align: center;">Computer Networks- Internet, Intranet &amp; applications. Network fundamentals</p>
Professional Ethics	<p>Use of Technology in Education: In Retrospect.</p> <p>Information and Communication Technology: Meaning, nature and advantages.</p>



	<p style="text-align: center;"><b>Hardware and Software Fundamentals</b></p> <p><i>Hardware Fundamentals</i></p> <p>Anatomy, block-diagram and overview of components, CPU, main memory, input &amp; output devices, storage devices), types of computers.</p> <p style="text-align: center;">Use of digital camera, recorder, scanner, printer, interactive white board, visualizer, and multimedia projector for creating and using multimedia resources</p> <p><i>Software Fundamentals</i></p> <p>Software - Meaning and types; System software: Operating systems such as Windows, Linux, Mac OS; Application software: Work, communication and other productivity tools.</p> <p style="text-align: center;">Introduction to office applications (Word processing, Spreadsheet</p> <p style="text-align: center;">Presentations, Databases, Drawing tools, Multimedia tools, File formats and conversion, utility tools</p> <p style="text-align: center;">Computer Networks- Internet, Intranet &amp; applications. Network fundamentals</p>
Gender	
Human Values	
Environment & Sustainability	
Unit II	ICT and Pedagogy
Local	<p style="text-align: center;">Approaches to integrating ICT in teaching and learning: Technological Pedagogical Content Knowledge (TPC)</p> <p>Subject specific ICT tools for creating pedagogical innovations, facilitating and integrated learning.</p> <p>Assistive technology for children with special needs: Tools and</p>

	<p>processes;</p> <p>Universal Design for Learning (UDL)</p> <p>Flipped Classrooms: Meaning and Possibilities.</p> <p>ICT Platform for Learning- Swayam, Swayam Prabha, Nishtha</p> <p>Mobile learning and related applications</p> <p>Open Educational Resources - Meaning and importance, various OER initiatives.</p> <p>Massive Open Online Courses (MOOC)-Concept and Use</p> <p>Project/Problem Based Learning (PBL): Role of ICT in developing technology integrated PBL unit.</p> <p>Web Quest and Virtual Field Trips: Concept, process, and use in the classroom.</p>
Regional	
National	
Global	
Employability	<p>Approaches to integrating ICT in teaching and learning:</p> <p>Technological Pedagogical Content Knowledge (TPC)</p> <p>Subject specific ICT tools for creating pedagogical innovations, facilitating and integrated learning.</p> <p>Assistive technology for children with special needs: Tools and processes;</p> <p>Universal Design for Learning (UDL)</p> <p>Flipped Classrooms: Meaning and Possibilities.</p> <p>ICT Platform for Learning- Swayam, Swayam Prabha, Nishtha</p> <p>Mobile learning and related applications</p>

	<p>Open Educational Resources - Meaning and importance, various OER initiatives.</p> <p>Massive Open Online Courses (MOOC)-Concept and Use</p> <p>Project/Problem Based Learning (PBL): Role of ICT in developing technology integrated PBL unit.</p> <p>Web Quest and Virtual Field Trips: Concept, process, and use in the classroom.</p>
Entrepreneurship	
Skill Development	<p>Approaches to integrating ICT in teaching and learning:</p> <p>Technological Pedagogical Content Knowledge (TPC)</p> <p>Subject specific ICT tools for creating pedagogical innovations, facilitating and integrated learning.</p> <p>Assistive technology for children with special needs: Tools and processes;</p> <p>Universal Design for Learning (UDL)</p> <p>Flipped Classrooms: Meaning and Possibilities.</p> <p>ICT Platform for Learning- Swayam, Swayam Prabha, Nishtha</p> <p>Mobile learning and related applications</p> <p>Open Educational Resources - Meaning and importance, various OER initiatives.</p> <p>Massive Open Online Courses (MOOC)-Concept and Use</p> <p>Project/Problem Based Learning (PBL): Role of ICT in developing technology integrated PBL unit.</p> <p>Web Quest and Virtual Field Trips: Concept, process, and use in the classroom.</p>
Professional	Approaches to integrating ICT in teaching and learning:

Ethics	<p>Technological Pedagogical Content Knowledge (TPC)</p> <p>Subject specific ICT tools for creating pedagogical innovations, facilitating and integrated learning.</p> <p>Assistive technology for children with special needs: Tools and processes;</p> <p>Universal Design for Learning (UDL)</p> <p>Flipped Classrooms: Meaning and Possibilities.</p> <p>ICT Platform for Learning- Swayam, Swayam Prabha, Nishtha</p> <p>Mobile learning and related applications</p> <p>Open Educational Resources - Meaning and importance, various OER initiatives.</p> <p>Massive Open Online Courses (MOOC)-Concept and Use</p> <p>Project/Problem Based Learning (PBL): Role of ICT in developing technology integrated PBL unit.</p> <p>Web Quest and Virtual Field Trips: Concept, process, and use in the classroom.</p>
Gender	
Human Values	
Environment & Sustainability	
<b>Unit III</b>	<b>ICT for Assessment and Management</b>
Local	
Regional	
National	
Global	
Employability	Electronic Assessment Portfolio - Concept and types of e-portfolio tools

	<p>Creating and use of electronic rubrics for assessment.</p> <p>Online and offline assessment tools - Rubrics, survey tools, puzzle makers, test generators, reflective journal, question bank</p> <p>ICT applications for CCE</p> <p>Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process.</p>
Entrepreneurship	
Skill Development	<p>Electronic Assessment Portfolio - Concept and types of e-portfolio tools</p> <p>Creating and use of electronic rubrics for assessment.</p> <p>Online and offline assessment tools - Rubrics, survey tools, puzzle makers, test generators, reflective journal, question bank</p> <p>ICT applications for CCE</p> <p>Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process.</p>
Professional Ethics	<p>Electronic Assessment Portfolio - Concept and types of e-portfolio tools</p> <p>Creating and use of electronic rubrics for assessment.</p> <p>Online and offline assessment tools - Rubrics, survey tools, puzzle makers, test generators, reflective journal, question bank</p> <p>ICT applications for CCE</p> <p>Artificial Intelligence: Genesis, meaning, need, importance and application to facilitate teaching and learning Process.</p>
Gender	
Human Values	
Environment & Sustainability	
Unit IV	Practicum
Local	

Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
SDG	1.a Ensure significant mobilization of resources from a variety of sources... Quality primary/ Secondary Education for all (SDG4.1), Skills for Decent Work (SDG 4.4), Revitalize the global partnership for sustainable development (Role of all Schools, KRMU) (SDG 17)
NEP 2020	Foundational Literacy and Numeracy: An Urgent & Necessary Prerequisite to Learning (2.1-2.9), Curriculum and Pedagogy in Schools: Learning Should be Holistic, Integrated, Enjoyable, and Engaging (4.1 - 4.46), Efficient Resourcing and Effective Governance through School Complexes/Clusters (7.1-7.12)
POE/4 <sup>th</sup> IR	Technical Skills that match Industry Needs, Focus on Employability Skills (Local/Regional and Global), Skill Embedded Courses Development, Employability

<b>SEED544A</b>	<b>GANDHIAN PHILOSOPHY: THEORY AND PRACTICES</b>	L	T	P	C
<b>Version 2.0</b>		3	0	0	0
<b>Pre-requisites/Exposure</b>	Gandhian Values				
<b>Co-requisites</b>	--				

### Course Objectives

The course will enable the student-teachers to:

- Develop an understanding of Gandhi's life and his philosophy.
- Acquaint the students with the concept of Swaraj as viewed by Mahatma Gandhi.
- Understand the role of Satyagraha in the independence movement of India.
- Familiarize the students with Political, Economical & Social philosophy of Gandhi.
- Emphasize the importance of Charkha and Khadi in the contemporary time.

### Course Outcomes

On the completion of the course student-teacher will be able to:

**CO1:** Understand the concept of peace from the perspective of various religions.

**CO2:** Appreciate the contribution of the Gandhi's in society and its impact on peer group.

**CO3:** Provide the student a holistic idea about methods of conflict resolution and hence makes them learn the various means of handling conflict.

**CO4:** Critically examine the Gandhi's Philosophy in learning as divergent process.

**CO5:** Understand the contribution and importance of different movements initiated by M.K Gandhi.

### Catalog Description

Mahatma Gandhi and his principles have great relevance in this era of Globalisation. Violent conflict and instability disrupt markets and societies. A peaceful environment is a pre requisite

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for successful business. Inclusive Growth is necessary for sustainable development. This course is designed to inculcate strong values in students and sensitise the youth to the problems of the marginalized. It aims at training the students in the art of participatory management and peaceful methods of conflict resolution. Through an interesting and well-planned mix of Lectures, presentations, skits, films, social outreach programmes and other activities it aims at developing the overall personality of students by helping them discover their latent talents and instilling leadership qualities. True education is not just coming out with a degree. It is how you change and what your values are when you finish. Peace is definitely good business and efforts to promote it certainly makes good business sense. With increasing number of Companies going in for Corporate Social Responsibility students who have completed this Course will definitely have an edge over others as the job market may prefer those who have executed some social sector responsibilities in addition to academics.

## **Course Content**

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### **Unit I:**

**15 Contact Hours**

#### **Gandhi's Life and Central Philosophy (based on My Experiments with Truth)**

- Life of Gandhi
- Childhood, Student life, Lawyer, Satyagrahi, Social reformer, Revolutionary leader
- What Gandhi absorbed from the Gita - Anasakti – Karmayoga - Idea of Yajna
- Central Philosophy
  - Ashrams
  - Truth as God
  - Truth and Love
  - Meaning and Power of Non-violence
  - Sarva dharma samabhava/ Equality of religions and equal respect for all religions
  - Satyagraha as a weapon of social change/revolution
  - Satyagraha and constructive work or service
- Major Satyagrahas led by Gandhi
  - Satyagraha in South Africa



- 
- Champaran Satyagrahi
  - Kheda Satyagraha
  - Ahmedabad Satyagraha
  - Salt Satyagraha
  - Individual Civil Disobedience
  - Quit India 1942

## **Unit II:**

**10 Contact Hours**

### **Thoughts of Gandhi - Political, Economical & Social**

- Gandhi's concept of politics - goals and methods of action
- Equality - Extent of equality - Rights and Duties
- Gandhi's Concept of Swaraj - Decentralized Administration
- Gram Swaraj - Ram Rajya - Panchayati Raj
- Village industries and crafts including small scale industries
- Gandhi's critique of Industrialism - Evils and consequences
- Distribution - Ownership - Trusteeship
- Swadeshi - Khadi & Charkha - Village industries
- Concept of Gramswaraj
- Varanshram system and its distinction from caste system
- Untouchability and the method of struggle against it - Harijan welfare
- Place of hygiene, sanitation and safayi
- Work against leprosy
- Empowerment of Women
- Gandhian Perspectives on Education
- Communal harmony–National Unity, ideals of casteless and classless society
- Self-reliance

### **Advanced Readings**

1. Acharya, R., & Tanna, G. C. (2). Mahatma Gandhi to Modi. Ahmedabad, India: Nanolan.

2. Baranavala, V. K. and Mahatma G. (2011). Hind svaraja: nava sabhyata-vimarsa (saṃskaraṇa.). New Delhi: Rajakamala Prakasana.
3. Chandra, S. (2011). Gandhi ek asambhav sambhavana. New Delhi: Rajkamal Prakashan.
4. Dutt, G. M., Patel, C. N., Roy, S., & Pai, A. (2009). Mahatma Gandhi: father of the nation. Mumbai: Amar Chitra Katha, ACK Media.
5. Gandhi, M. K. (2006). An Autobiography or The story of my experiments with truth. New Delhi: Penguin Books.
6. Gandhi, M.K. (1965). Trial of Gandhiji. Ahmedabad: Navjivan Press.
7. Gandhi, M.K. (1997). Hind Swaraj and other writings. New Delhi: Foundation Books
8. Gandhi, M.K. (2011). Together they fought: Gandhi-Nehru correspondence, 1921- 1948. New Delhi: Oxford University Press.

### Internet Resources

1. Gandhi Serve Foundation - Mahatma Gandhi Research and Media Service
2. Gandhi World Foundation
3. <http://gandhiworld.in/english/index.php>
  - a. <http://www.gandhiashramsabarmati.org/en/>
  - b. <http://www.gandhi-manibhavan.org/>
  - c. <http://www.gandhiserve.org/e/>
4. <http://www.mkgandhi-sarvodaya.org/ind>
5. <http://www.mkgandhi-sarvodaya.org/index.html>
  - a. [https://en.wikipedia.org/wiki/Mahatma\\_Gandhi](https://en.wikipedia.org/wiki/Mahatma_Gandhi)
  - b. [https://en.wikipedia.org/wiki/Mahatma\\_Gandhi](https://en.wikipedia.org/wiki/Mahatma_Gandhi)
  - c. <https://www.britannica.com/biography/Mohandas-Karamchand-Gandhi>
6. Mahatma Gandhi - Wikipedia, the free encyclopedia.
7. Mahatma Gandhi Ashram at Sabarmati, Ahmedabad
8. Mahatma Gandhi Complete Information
9. Mahatma Gandhi Complete Information Website
10. Mahatma Gandhi Videos:  
[https://www.youtube.com/results?search\\_query=mahatma+gandhi](https://www.youtube.com/results?search_query=mahatma+gandhi)
11. Mahatma Gandhi -Wikipedia, the free encyclopedia
12. Manibhavan Gandhi Sangrahalaya

13. Mohandas Karamchand Gandhi

14. Official Website of the Gandhi Research Foundation <http://www.gandhifoundation.net/>

15. The Gandhi Heritage Portal. It is developed by the Sabarmati Ashram Preservation and Memorial trust, Ahmedabad <https://www.gandhiheritageportal.org/>

**Modes of Evaluation: Students performance is based on continuous evaluation**

**Examination Scheme: As per university guideline**

**Relationship between the Course Outcomes (COs) and Programme Outcomes (POs)**

<b>Mapping between COs and POs</b>		
	<b>Course Outcomes (COs)</b>	<b>Mapped Programme Outcomes</b>
<b>CO1</b>	Understand the concept of peace from the perspective of various religions.	<b>PO4</b>
<b>CO2</b>	Appreciate the contribution of the Gandhi's in society and its impact on peer group.	<b>PO7</b>
<b>CO3</b>	Provide the student to a holistic idea about methods of conflict resolution and hence makes them learn the various means of handling conflict.	<b>PO9/PO10</b>
<b>CO4</b>	Critically examine the Gandhi's Philosophy in learning as divergent process.	<b>PO6</b>
<b>CO5</b>	Understand the contribution and importance of different movements initiated by M.K Gandhi.	<b>PO7</b>

		Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards Inclusion	Self-Development and Community Attachment	Technology Skills	Professional Competencies	General and Specific Need & Problems	Pedagogical Content Analysis	Developmental tasks	Diverse Needs	Research Ethics and Entrepreneurial Skills
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 544A	<b>Gandhian Philosophy: Theory and Practices</b>			2	3	2		3			2	3		3	

<b>Programme and Course Mapping</b>														
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PSO 1	PSO 2	PSO 3
CO 1				3										3
CO 2							3							
CO 3									3					
CO 4						3								
CO 5							3							
1=lightly mapped                      2= moderately mapped                      3=strongly mapped														

Unit I	Gandhi's Life and Central Philosophy (based on My Experiments with Truth)
Local	Champaran Satyagrahi
Regional	Kheda Satyagraha
National	Ahmedabad Satyagraha
Global	Satyagraha in South Africa, Individual Civil Disobedience
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	Satyagraha as a weapon of social change/revolution
Gender	
Human Values	Ashrams, Truth as God, Truth and Love Satyagraha and constructive work or service
Environment & Sustainability	
Unit II	Thoughts of Gandhi - Political, Economical & Social
Local	Village industries and crafts including small scale industries Swadeshi - Khadi & Charkha - Village industries
Regional	Gram Swaraj - Ram Rajya - Panchayati Raj
National	Gandhi's concept of politics - goals and methods of action
Global	
Employability	Gandhi's concept of politics - goals and methods of action Communal harmony–National Unity, ideals of casteless and classless society
Entrepreneurship	
Skill Development	Empowerment of Women
Professional Ethics	
Gender	
Human Values	Untouchability and the method of struggle against it - Harijan welfare, Communal harmony–National Unity, ideals of casteless and classless society

Environment & Sustainability	
SDG	Implement nationally appropriate social protection systems and measures for all, Create sound policy frameworks Safe and Inclusive Learning Environments
NEP 2020	Curriculum and Pedagogy in Schools, Teachers, Equitable and Inclusive Education: Learning for All, Towards a More Holistic and Multidisciplinary Education
POE/4 <sup>th</sup> IR	

## 8. ANNEXURE

### Scheme of Studies B.El.Ed. as per Choice Based Credit System (CBCS) and Learning Outcome Based Framework (LOCF)

Scheme of Studies B.El.Ed. Batch 2022-26 as per Choice Based Credit System (CBCS) and Learning Outcome Based Framework (LOCF)																
	Odd Semester								Even Semester							
	S. No.	Course Code	Course Title	Course Type	L	T	P	Credits	S. No.	Course Code	Course Title	Course Type	L	T	P	Credits
FIRST	1	SEED 101A	Basic Concepts and Thoughts in Education	Theory	4	0	0	4	1	SEED 102A	Child Development	Theory	4	0	0	4
	2	SEED 103A	Nature of Language I	Theory	4	0	0	4	2	SEED 104A	Nature of Language II	Theory	4	0	0	4
	3	SEED 105A	Core Mathematics I	Theory	4	0	0	4	3	SEED 106A	Core Mathematics II	Theory	4	0	0	4
	4	SEED 107A	Core Natural Sciences I	Theory	4	0	0	4	4	SEED 108A	Core Natural Sciences II	Theory	4	0	0	4
	5	SEED 109A	Core Social Sciences I	Theory	4	0	0	4	5	SEED 110A	Core Social Sciences II	Theory	4	0	0	4
	6	Open Elective		Theory	4	0	0	4	6	SEED 112A	School Exposure II	Practical	0	0	4	2
	7	SEED 111A	School Exposure I	Practical	0	0	4	2								
			<b>Total</b>					<b>26</b>			<b>Total</b>					<b>22</b>
SECOND	1	SEED 213A	Cognition and Learning	Theory	4	0	0	4	1	SEED 214A	Communication in Teaching-Learning Process	Theory	4	0	0	4
	2	SEED 215A	Language Acquisition	Theory	4	0	0	4	2	SEED 216A	Logico-Mathematics Education	Theory	4	0	0	4

	3	SEED 217A	Observing Children	Practical	0	0	0	2	3	SEED 218A	Arts in Education	Theory	0	0	4	2
	4	SEED 219A	Self-Development Workshop	Practical	0	0	4	2	4	SEED 220A	Yoga Education	Practical	0	0	4	2
	5	SEED 221A	Service Learning	Practical	0	0	4	2	5	SEED 222A	Understanding the Self	Practical	0	0	4	2
									6	SEED 224A	School Attachment Programme and Community Living	Practical	0	0	4	2
	6	<b>*Liberal Course ( Optional I)</b>							<b>*Liberal Course ( Optional II)</b>							
		SEED 223A	English I	Theory	4	0	0	4	7	SEED 226A	English II	Theory	4	0	0	4
		SEED 225A	Hindi I	Theory						SEED 228A	Hindi II	Theory				
		SEED 227A	Chinese I	Theory						SEED 230A	Chinese II	Theory				
		SEED 229A	Mathematics I	Theory						SEED 232A	Mathematics II	Theory				
		SEED 231A	Physics I	Theory						SEED 234A	Physics II	Theory				
		SEED 233A	Chemistry I	Theory						SEED 236A	Chemistry II	Theory				
		SEED 235A	Biology I	Theory						SEED 238A	Biology II	Theory				
		SEED 237A	History I	Theory						SEED 240A	History II	Theory				
		SEED 239A	Political Science I	Theory						SEED 242A	Political Science II	Theory				
		SEED 241A	Geography I	Theory						SEED 244A	Geography II	Theory				
		SEED 243A	Economics I	Theory						SEED 246A	Economics II	Theory				
									8	SEED 542A	Disaster Management	Theory	4	0	0	4
		<b>Total</b>						<b>18</b>		<b>Total</b>						<b>24</b>
<b>THIRD</b>	<b>S. No .</b>	<b>Course Code</b>	<b>Course Title</b>		<b>L</b>	<b>T</b>	<b>P</b>	<b>Credits</b>	<b>S. No .</b>	<b>Course Code</b>	<b>Course Title</b>					<b>Credits</b>
	1	SEED 377A	Childhood and Growin	Theory	4	0	0	4								



		g Up																
2	SEED 345A	Language Across the Curriculum	Theory	4	0	0	4	1	SEED 348A	Contemporary India and Education	Theory	4	0	0	4			
3	SEED 347A	Total Quality Management in Education	Theory	4	0	0	4	2	SEED 350A	Pedagogy of Environmental Studies	Theory	4	0	0	4			
4	SEED 349A	Story Telling and Children's Literature	Theory	4	0	0	2	<b>Optional Course -Student will opt any one of Pedagogy subject</b>										
5	SEED 351A	Academic Enrichment Activities	Practical	0	0	4	2											
6	SEED 353A	School Engagement I	Practical	0	0	4	2											
								3	SEED 352A	Pedagogy of Language	Theory	4	0	0	4			
<b>*Liberal Course (Optional III)</b>									SEED 354A	Pedagogy of Mathematics	Theory	4	0	0				
7	SEED 355A	English III	Theory	4	0	0	4		SEED 356A	Pedagogy of Natural Science	Theory	4	0	0				
	SEED 357A	Hindi III	Theory						SEED 358A	Pedagogy of Social Science	Theory	4	0	0				
	SEED 359A	Chinese III	Theory					4	SEED 360A	Developing Instructional Aids	Practical	0	0	4	2			
	SEED 361A	Mathematics III	Theory					5	SEED 362A	School Engagement II	Practical	0	0	4	2			
	SEED 363A	Physics III	Theory					<b>*Liberal Course (Optional IV)</b>										
	SEED 365A	Chemistry III	Theory					6	SEED 364A	English IV	Theory	4	0	0	4			
	SEED 367A	Biology III	Theory						SEED 366A	Hindi IV	Theory							
	SEED 369A	History III	Theory						SEED 368A	Chinese IV	Theory							
SEED 371A	Political	Theory	SEED 370A	Mathematics IV	Theory													

			Science III															
		SEED 373A	Geography III	Theory						SEED 372A	Physics IV	Theory						
		SEED 375A	Economics III	Theory						SEED 374A	Chemistry IV	Theory						
	8	VAC		Theory	3	0	0	0		SEED 376A	Biology IV	Theory						
		<b>Total</b>						<b>22</b>		SEED 378A	History IV	Theory						
										SEED 380A	Political Science IV	Theory						
										SEED 382A	Geography IV	Theory						
										SEED 384A	Economics IV	Theory						
										<b>Total</b>								<b>20</b>
	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>					<b>Credits</b>	<b>S. No.</b>	<b>Course Code</b>	<b>Course Title</b>							<b>Credits</b>
	1	SEED 477A	Research Project I (Case Study)	Practical	0	0	0	2	1	SEED 486A	Gender and Schooling	Theory	4	0	0	0	4	
	2	SEED 479A	School Internship	Practical	0	0	0	17	2	SEED 488A	Inclusive Education	Theory	4	0	0	0	4	
									3	SEED 490A	Environmental Education	Theory	4	0	0	0	4	
									4	SEED 492A	Research Project II (Educational Issue)	Practical	0	0	4	4	2	
									5	SEED 494A	Resource Center Development	Practical	0	0	4	4	2	
									6	SEED 496A	Understanding ICT and Its Application	Practical	0	0	4	4	2	
									7	<b>VAC (GPTP)</b>		Theory	3	0	0	0	0	
			<b>Total</b>					<b>19</b>	<b>Total</b>									<b>18</b>
											<b>Total Credits:</b>							<b>169</b>