K. R. MANGALAM UNIVERSITY

THE COMPLETE WORLD OF EDUCATION

School of Education

Department of Education

Bachelor of Elementary Education (B.El.Ed.)

(Undergraduate Programmme)

(2023-2024)

Preface

K.R. Mangalam University is in process of transforming to National Educational Policy 2021. 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. course as per the guide lines suggested by National Council for Tecaher 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 life-long 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 experimential learning has been promoted by including School Internship in various renowned schools.
5. Department 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.

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. Department of Education

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

1. Create socially concerned, spiritually oriented and law abiding teachers with right attitudes and values.
2. Establish the students to lead the dynamic school with the integration of theoretical and practical approach of leadership and administrative tasks.
3. Make students succeed in a rapid changing society with the understanding of the challenges of the sustainability issues.
4. Prepare competent, committed and creative professionals by engaging them in innovative teaching and empirical research activities.

3.1.3. Aims of Bachelor Degree Programme

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.

3.1.4. Graduate Attributes

The graduate attributes of School of Education are as follows:

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/e

3.1.5 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.
thical values in conducting one's life, formulate a position/argument on ethical issues from multiple perspectives, and adapting moral practices in various work dimensions.

3.1.5. Programme Outcomes (PO)

PO1: Pedagogical Content Knowledge and Skills: Graduates will have a comprehensive understanding of pedagogical theories and practices and will be able to effectively apply them

in diverse teaching and learning contexts.

PO2: Subject Matter Competence: Graduates will possess a deep knowledge and understanding of the subject area(s) they specialize in, enabling them to teach the subject(s) effectively at the appropriate grade level(s).

PO3: Curriculum Planning and Instructional Design: Graduates will be able to design and develop appropriate curriculum plans and instructional materials that align with educational standards and cater to the diverse needs of students.

PO4: Assessment and Evaluation: Graduates will be skilled in designing and implementing various assessment methods to evaluate student learning, providing constructive feedback, and using assessment data to inform instructional practices.

PO5: Technology Integration: Graduates will be competent in integrating educational technologies into their teaching practice to enhance instruction, engage students, and facilitate meaningful learning experiences.

PO6: Inclusive Education: Graduates will be able to create inclusive classrooms that embrace diversity, accommodate the needs of all learners, and promote equitable access to quality education.

PO7: Classroom Management: Graduates will be proficient in managing classroom dynamics, creating a positive learning environment, and establishing clear expectations for student behaviour and engagement.

PO 8 Self Development and Community Engagement: Graduates will be able to engage with the self and demonstrate an understanding of the significance of community engagement in the field of education and possess the knowledge, skills, and attitudes necessary to effectively engage with the community.

PO9: Collaboration and Communication: Graduates will possess strong interpersonal and communication skills, allowing them to effectively collaborate with colleagues, engage with parents and guardians, and build partnerships with the wider community.

PO 10: Lifelong Learning: Graduates will recognize the importance of lifelong learning and professional development, actively seeking opportunities to enhance their knowledge, skills, and expertise in a rapidly changing technological landscape.

PO11: Research and Reflection: Graduates will be equipped with the skills to critically analyze educational research, engage in reflective practice, and continuously improve their teaching methods based on evidence and self-reflection.

PO12: Professionalism and Ethical Practices: Graduates will demonstrate professionalism, ethical behaviour, and a commitment to lifelong learning and professional growth. They will also adhere to ethical guidelines and standards of the teaching profession**.**

4.1. 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.

4.1.1. 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.

4.1.2. Course Outline

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 caliber in the field of elementary teacher education. It consists of tnterdisciplinary teaching where students get an opportunity to learn diverse disciplines of education, psychology, sociology, linguistics, social sciences, biological and natural science, mathematical sciences and the languages.

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.

4.1.3. Career Avenues

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.

4.1.4. Programme Specific Outcomes (PSO)

PSO 1: Knowledge of Child Development and Learning: Demonstrate an understanding of the principles of child development and learning theories. They will apply this knowledge to create engaging and developmentally appropriate learning experiences for elementary school children

PSO 2: Subject Matter Expertise: Effectively teach these subjects, integrate interdisciplinary approaches, and foster critical thinking and problem-solving skills among elementary school students.

PSO 3: Classroom Management and Inclusive Practices: Equip with classroom management techniques to create a positive and inclusive learning environment and demonstrate the ability to address the diverse needs, abilities, and backgrounds of students, promoting equal opportunities for learning and participation.

PSO 4: Technology Integration: Integrate educational technologies into lesson planning and

instructional delivery, foster digital literacy skills in students and promote responsible and ethical use of technology.

PSO 5: Collaboration Professionalism and Ethical Practice: Develop effective collaboration and communication skills to work with colleagues, parents, and community stakeholders and demonstrate professionalism, ethical conduct, and a commitment to ongoing professional development.

PSO 6: Assessment and Evaluation: Design and implement formative and summative assessment strategies to monitor student progress and inform instructional decisions, demonstrate the ability to provide constructive feedback and support students' individual learning needs.

PSO 7: Entrepreneurship Research and Reflective Practice: Cultivate an entrepreneurial mindset, promote creativity and innovation, and engage in critical reflection. Seek feedback, utilize research-based evidence, and enhance instructional strategies and classroom interactions.

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

5. **Class Timings**

The class will be held from Monday to Friday from 9.10 A.M. to 4.00 P.M.

6. **Programme Duration**

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

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

7. Syllabi

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

Course Structure for B.El.Ed.							
Odd Semester				Even Semester			
S.No.	Course Code	Course Title	Credits	S.No.	Course Code	Course Title	Credits

1	SEED101A	Basic Concepts and Thoughts in Education	4	1	SEED102A	Child Development	4
2	SEED103A	Nature of Language I	4	2	SEED104A	Nature of Language II	4
3	SEED105A	Core Mathematics I	4	3	SEED106A	Core Mathematics II	4
4	SEED107A	Core Natural Sciences I	4	4	SEED108A	Core Natural Sciences II	4
5	SEED109A	Core Social Sciences I	4	5	SEED110A	Core Social Sciences II	4
6	Open Elective		4	6	SEED112A	School Exposure II	2
7	SEED111A	School Exposure I	2				
		Total	**26**			**Total**	**22**
S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
1	SEED213A	Cognition and Learning	4	1	SEED214A	Communication in Teaching-Learning Process	4
2	SEED215A	Language Acquisition	4	2	SEED216A	Logico-Mathematics Education	4
3	SEED217A	Observing Children	2	3	SEED218A	Art and Craft in Education	2
4	SEED219A	Self-Development Workshop	2	4	SEED220A	Physical, Health and Yoga Education	2
5	SEED221A	Service Learning	2	5	SEED222A	Understanding the Self	2

***Liberal Course (Optional I)**				6	SEED224A	School Attachment Programme and Community Living	2
6	SEED223A	English I	4	***Liberal Course (Optional II)**			
	SEED225A	Hindi I		7	SEED226A	English II	4
	SEED227A	Chinese I			SEED228A	Hindi II	
	SEED229A	Mathematics I			SEED230A	Chinese II	
	SEED231A	Physics I			SEED232A	Mathematics II	
	SEED233A	Chemistry I			SEED234A	Physics II	
	SEED235A	Biology I			SEED236A	Chemistry II	
	SEED237A	History I			SEED238A	Biology II	
	SEED239A	Political Science I			SEED240A	History II	
	SEED241A	Geography I			SEED242A	Political Science II	
	SEED243A	Economics I			SEED244A	Geography II	
7	**SWAYAM MOOC**		2		SEED246A	Economics II	
				8	SEED542A	Disaster Management	4
		Total	20			**Total**	**24**
S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
				1	SEED348A	Contemporary India and Education	4
1	SEED345A	Language Across the Curriculum	4	2	SEED350A	Pedagogy of Environmental Studies	4
2	SEED347A	Total Quality Management in Education	4	**Optional Course -Student will opt any one of Pedagogy subject**			

3	SEED349A	Story Telling and Children's Literature	2				
4	SEED351A	Academic Enrichment Activities	2				
5	SEED353A	School Engagement I	2	3	SEED352A	Pedagogy of Language	4
***Liberal Course (Optional III)**					SEED354A	Pedagogy of Mathematics	
6	SEED355A	English III	4		SEED356A	Pedagogy of Natural Science	
	SEED357A	Hindi III			SEED358A	Pedagogy of Social Science	
	SEED359A	Chinese III		4	SEED360A	Developing Instructional Aids	2
	SEED361A	Mathematics III		5	SEED362A	School Engagement II	2
	SEED363A	Physics III		***Liberal Course (Optional IV)**			
	SEED365A	Chemistry III		6	SEED364A	English IV	4
	SEED367A	Biology III			SEED366A	Hindi IV	
	SEED369A	History III			SEED368A	Chinese IV	
	SEED371A	Political Science III			SEED370A	Mathematics IV	
	SEED373A	Geography III			SEED372A	Physics IV	
	SEED375A	Economics III			SEED374A	Chemistry IV	
7	**VAC**		**0**		SEED376A	Biology IV	
					SEED378A	History IV	
					SEED380A	Political Science IV	
					SEED382A	Geography IV	

					SEED384A	Economics IV	
		Total	**18**			**Total**	**20**
S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
1	SEED477A	Research Project I (Case Study)	2	1	SEED486A	Gender and Schooling	4
2	SEED479A	School Internship	17	2	SEED488A	Inclusive Education	4
				3	SEED490A	Environmental Education	4
				4	SEED492A	Research Project II (Educational Issue)	2
				5	SEED494A	Resource Center Development	2
				6	SEED496A	Understanding ICT and Its Application	2
				7	SEED544A	Gandhian Philosophy: Theory and Practices (Value Added Course)	0
		Total	**19**	**Total**			**18**

SEMESTER I

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

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

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. Krishnamuri, Jiddu (1992). Education and the Significance of Life. India: Krishnamurti FoundationIndia.
4. Woozley, 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

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 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 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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO1													3						
CO2																			
CO3				1															
CO4			2										3		2				
1=lightly mapped 2= moderately mapped 3=strongly mapped																			

Unit I	**Concept, Issues and Theories of Human Development**
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	**Birth and Infancy**
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	
Unit III	**The Pre-school Child**
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	
Unit IV	**The Elementary School Child**
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/4th IR	Projects

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

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

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

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**

		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
SEED103A	Nature of Language I	3	3	3			3							3	
1= lightly mapped			2= moderately mapped							3=strongly mapped					

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1				3															3
CO2	3																		
CO3		3												3					
CO4	3												3						

Unit I	**Introduction to Language and Linguistics**
Local	• Definition • Scope and Significance • Verbal and Non-Verbal
Regional	• Design features of Language
National	• Definition • Scope and Significance • Verbal and Non-Verbal
Global	• Human and Animal System of Communication • Design features of Language
Employability	• Form and Function • Structural and Functional notions of language
Entrepreneurship	-
Skill Development	• Human and Animal System of Communication • Design features of Language
Professional Ethics	• Definition • Scope and Significance • Verbal and Non-Verbal
Gender	-
Human Values	• Human and Animal System of Communication
Environment & Sustainability	-
Unit II	**Linguistics & its Branches**

Local	• Definition
	• Linguistic hierarchy of language
	• Phonology
	• Morphology
	  • Syntax
	  • Semantics
	  • Pragmatics
	  • Etymology
	  • Semiology

Regional	Linguistic hierarchy of language
National	Linguistic hierarchy of language
Global	Linguistic hierarchy of language

Employability	• Definition
	• Linguistic hierarchy of language
	• Phonology
	• Morphology
	  • Syntax
	  • Semantics
	  • Pragmatics
	  • Etymology
	  • Semiology

Entrepreneurship	-
Skill Development	• Word formation • Sentence Synthesis
Professional Ethics	• Word formation • Sentence Synthesis
Gender	-
Human Values	-
Environment & Sustainability	-
Unit III	**Language, Mind and Brain**
Local	• Biological Foundations of Language • Language and Thought • Language Production and Processing • Lateralization and Localization • Language and Speech Disorders
Regional	• Biological Foundations of Language • Language and Thought • Language Production and Processing
National	• Biological Foundations of Language • Language and Thought • Language Production and Processing
Global	• Biological Foundations of Language • Language and Thought • Language Production and Processing
Employability	• Biological Foundations of Language • Language and Thought

	• Language Production and Processing • Lateralization and Localization • Language and Speech Disorders
Entrepreneurship	
Skill Development	• Lateralization and Localization • Language and Speech Disorders
Professional Ethics	• Language and Speech Disorders • Biological Foundations of Language
Gender	-
Human Values	• Language and Speech Disorders
Environment & Sustainability	-
Unit IV	**Language and Society**
Local	• 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
Regional	• 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
National	• 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
Global	• 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
Employability	• 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
Entrepreneurship	-
Skill Development	• 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
Professional Ethics	• 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
Gender	• Relationship between language and society - Identity, power and discrimination
Human Values	• Standard and Non-Standard Varieties of Language - Pidgins and Creoles
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)**
NEP 2020	**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
POE/4th IR	Developing phonetic Transcription- Developing phonetic Transcription

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

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 s**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

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

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.	P01
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.	
CO4	Enable them to calculate the area and volume enclosed by different shapes	**PO5**
CO5	The ability to solve mathematical problems using a variety of strategies.	**PO8**

		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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1	2													2					
CO2		3																	
CO3		3																	
CO4										3				2					

CO 5		3												2					

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	
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	**Geometry**
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	**Mensuration**
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 lieracy 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/4th IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

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

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

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 Lootoian, 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
5. https://www.youtube.com/watch?v=erghLWXDScI

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

Programme and Course Mapping																			
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO1	2													2					
CO2		2												2					
CO3		2																	
CO4																			
CO5	2	2												2				2	
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
Unit III	**The Fundamental Unit of Life**
Local	
Regional	
National	
Global	Cell Structure and Functions Tissue Diversity in Living Organisms
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	

Gender	
Human Values	
Environment & Sustainability	
Unit IV	**Our Environment and Natural Resources**
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/4th IR	Internship

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

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:

COI 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

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 19th 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
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 its relevance for the students of elementary level of education	**PO10**
CO3	Critically examine the different phases of development of societies and their features.	**PO3**
CO4	Learn about the features of the Constitution of India and	**PO5**

	identify India as a democratic nation	
CO5	Analyse the social and economic challenges being faced by India after LPG.	**PO7**

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**	**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	

Course Outcome	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1				3												3			
CO2								3						2					
CO3											3							3	
CO4		3																	
CO5									3										

Unit I	**Social Science as a Discipline**
Local	Nature of Social Science, Social Science as a discipline, Importance of Social Sciences, Relationship of Social Science with other disciplines
Regional	Nature of Social Science Social Science as a discipline
National	Importance of Social Sciences Relationship of Social Science with other disciplines

Global	Importance of Social Sciences Relationship of Social Science with other disciplines
Employability	Nature of Social Science Social Science as a discipline
Entrepreneurship	Nature of Social Science Social Science as a discipline
Skill Development	Nature of Social Science Social Science as a discipline
Professional Ethics	Nature of Social Science Social Science as a discipline
Gender	Importance of Social Sciences Relationship of Social Science with other disciplines
Human Values	Importance of Social Sciences Relationship of Social Science with other disciplines
Environment & Sustainability	Importance of Social Sciences Relationship of Social Science with other disciplines
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Unit II	**Livelihood, Economies and Societies**
Local	The pre-modern world
Regional	The pre-modern world
National	The age of industrialization
Global	The 19th century global economy Concept of Liberalization, privatization, and globalization
Employability	Skill Development
Entrepreneurship	Concept of Liberalization, privatization, and globalization
Skill Development	Skill Development
Professional Ethics	Concept of Liberalization, privatization, and globalization
Gender	Gender
Human Values	Human Values
Environment & Sustainability	Environment & Sustainability
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development

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

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**
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 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
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															

Unit I	**Activity: 1 Class Room Observation**
Local	Class Room Observation
Regional	
National	
Global	

Employability	Class Room Observation
Entrepreneurship	
Skill Development	Class Room Observation
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	**Activity: 2 Visit different types of lab (Preparation of Lab report)**
Local	
Regional	
National	
Global	
Employability	Visit different types of lab (Preparation of Lab report)
Entrepreneurship	
Skill Development	Visit different types of lab (Preparation of Lab report)
Professional Ethics	Visit different types of lab (Preparation of Lab report)
Gender	
Human Values	
Environment & Sustainability	
Unit III	**Activity: 3 Develop teaching learning resources**
Local	Develop teaching learning resources
Regional	
National	
Global	
Employability	Develop teaching learning resources
Entrepreneurship	
Skill Development	Develop teaching learning resources
Professional Ethics	Develop teaching learning resources
Gender	
Human Values	
Environment & Sustainability	
Unit IV	**Activity: 4 Organise different types of social awareness Programme** **Activity: 5 Prepare a report on special children (If Any)**
Local	Prepare a report on special children (If Any)
Regional	
National	
Global	
Employability	Prepare a report on special children (If Any)
Entrepreneurship	

Skill Development	• Organise different types of social awareness Programme • Prepare a report on special children (If Any)
Professional Ethics	Organise different types of social awareness Programme
Gender	
Human Values	Organise different types of social awareness Programme
Environment & Sustainability	
SDG	**Professional Development of Teachers**
NEP 2020	**Equitable and Inclusive Education**
POE/4th IR	**Skill Development**

SEMESTER II

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

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

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

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 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

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															

Unit I	**Activity: 1 Class Room Observation**
Local	Class Room Observation

Regional	
National	
Global	
Employability	Class Room Observation
Entrepreneurship	
Skill Development	Class Room Observation
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit II	**Activity: 2 Visit different types of lab (Preparation of Lab report)**
Local	
Regional	
National	
Global	
Employability	Visit different types of lab (Preparation of Lab report)
Entrepreneurship	
Skill Development	Visit different types of lab (Preparation of Lab report)
Professional Ethics	Visit different types of lab (Preparation of Lab report)
Gender	
Human Values	
Environment & Sustainability	
Unit III	**Activity: 3 Develop teaching learning resources**
Local	Develop teaching learning resources
Regional	
National	
Global	
Employability	Develop teaching learning resources
Entrepreneurship	
Skill Development	Develop teaching learning resources
Professional Ethics	Develop teaching learning resources
Gender	
Human Values	
Environment & Sustainability	
Unit IV	**Activity: 4 Organise different types of social awareness Programme** **Activity: 5 Prepare a report on special children (If Any)**
Local	Prepare a report on special children (If Any)
Regional	
National	

Global	
Employability	Prepare a report on special children (If Any)
Entrepreneurship	
Skill Development	• Organise different types of social awareness Programme • Prepare a report on special children (If Any)
Professional Ethics	Organise different types of social awareness Programme
Gender	
Human Values	Organise different types of social awareness Programme
Environment & Sustainability	
SDG	**Professional Development of Teachers**
NEP 2020	**Equitable and Inclusive Education**
POE/4th IR	**Skill Development**

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

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

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. Balasubramanium, 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

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 Grammar and Writing in the development of Language System	**PO2**
CO2	Associate the structure of language with Classroom Discourse	**PO11**
CO3	Apply the principles of language pedagogy in the Language Classroom	**PO10**
CO4	Summarize the role of language in the multilingual classroom of Indian School	**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
SEED104A	Nature of Language II		3				3				3	3		3	

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1		3												3					
CO2											3								3
CO3										3			3						
CO4						3									2				

Unit I	**Phonetics, Morphology, Grammar and Writing**
Local	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 • Syllabic and Alphabetic Writing • Speech and Writing
Regional	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 • Syllabic and Alphabetic Writing • Speech and Writing
National	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 • Syllabic and Alphabetic Writing • Speech 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 • Syllabic and Alphabetic Writing • Speech and Writing
Global	

Employability	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 • Syllabic and Alphabetic Writing • Speech and Writing
Entrepreneurship	
Skill Development	• 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 • Syllabic and Alphabetic Writing • Speech and Writing
Professional Ethics	
Gender	• Grammatical Gender
Human Values	
Environment & Sustainability	
Unit II	**Classroom and Discourse Analysis**
Local	• 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.
Regional	
National	• 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.
Global	• 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.
Employability	• 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.
Entrepreneurship	
Skill Development	• 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.
Professional Ethics	• 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.
Gender	
Human Values	• Organization of Discourse • Classroom Discourse: Structure and Nature
Environment & Sustainability	
Unit III	**Language and Society**
Local	• Relationship between Language and Society • Classification of Language Varieties- Dialects, Accents, Registers • Language in Contact • Diglossia • Code-switching and Code-mixing • Pidgins and Creoles
Regional	• Relationship between Language and Society • Classification of Language Varieties- Dialects, Accents, Registers • Language in Contact • Diglossia • Code-switching and Code-mixing • Pidgins and Creoles
National	• Relationship between Language and Society • Classification of Language Varieties- Dialects, Accents, Registers • Language in Contact • Diglossia • Code-switching and Code-mixing • Pidgins and Creoles
Global	• Relationship between Language and Society

	• Classification of Language Varieties- Dialects, Accents, Registers • Language in Contact • Diglossia • Code-switching and Code-mixing • Pidgins and Creoles
Employability	• Relationship between Language and Society • Classification of Language Varieties- Dialects, Accents, Registers • Language in Contact • Diglossia • Code-switching and Code-mixing • Pidgins and Creoles
Entrepreneurship	
Skill Development	• Classification of Language Varieties- Dialects, Accents, Registers • Language in Contact • Diglossia • Code-switching and Code-mixing • Pidgins and Creoles
Professional Ethics	• Relationship between Language and Society
Gender	
Human Values	• Language in Contact
Environment & Sustainability	
Unit IV	**Multilingualism in India**
Local	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
Regional	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
National	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
Global	
Employability	• Strategies of Teaching in a Multilingual Classroom.
Entrepreneurship	
Skill Development	• Strategies of Teaching in a Multilingual Classroom. • Language Families of India
Professional Ethics	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
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) Listening activity on Phonetic Transcrptions**
NEP 2020	**1. Curriculum and Pedagogy in Schools: Learning Should be Holistic, 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
POE/4th IR	**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**

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

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

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

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 how to use and express mathematically some elementary functions such as linear and exponential	**PO3**
CO2	Learn methods of determining unknowns to solve linear equations	**PO5**
CO3	Learn to find out roots of polynomials and their properties	**PO8**
CO4	Learn graphical representation of data, and use of mean, median and mode.	**PO10**
CO5	Acquire data handling skills.	**PO7**

		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 106A	Core Mathematics -II			3		2		2	3		2				

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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1																			
CO2																			
CO3																			
CO4																			
CO5																			
CO6																			

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	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	
Global	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	
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		
Unit II	**Polynomials**	
Local	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	
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	**Equations**	
Local	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)	
Regional	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)	
National	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)	
Global	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)	
Employability	Solution of a Pair of Linear Equations (Graphical and Algebraic) Equations Reducible to a Pair of Linear Equations in Two Variables	
Entrepreneurship		
Skill Development	Solution of a Quadratic Equation	
Professional Ethics	Equations Reducible to a Pair of Linear Equations in Two Variables	
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/4th IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability	

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

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

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

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**

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

	Programme and Course Mapping																		
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO1	2													2					
CO2		2												2					
CO3		2																	
CO4																			
CO5	2	2												2				2	
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
Unit III	**The Fundamental Unit of Life**
Local	
Regional	
National	
Global	Cell Structure and Functions Tissue Diversity in Living Organisms
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	**Our Environment and Natural Resources**
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/4th IR	Internship

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

Course Objectives:

The student-taechers 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:

COI 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

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

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

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1				3												3			
CO2								3						2					
CO3											3							3	
CO4		3																	
CO5									3										

Unit I	Social Science as a Discipline
Local	Nature of Social Science, Social Science as a discipline, Importance of Social Sciences, Relationship of Social Science with other disciplines
Regional	Nature of Social Science Social Science as a discipline

National	Importance of Social Sciences Relationship of Social Science with other disciplines
Global	Importance of Social Sciences Relationship of Social Science with other disciplines
Employability	Nature of Social Science Social Science as a discipline
Entrepreneurship	Nature of Social Science Social Science as a discipline
Skill Development	Nature of Social Science Social Science as a discipline
Professional Ethics	Nature of Social Science Social Science as a discipline
Gender	Importance of Social Sciences Relationship of Social Science with other disciplines
Human Values	Importance of Social Sciences Relationship of Social Science with other disciplines
Environment & Sustainability	Importance of Social Sciences Relationship of Social Science with other disciplines
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Unit II	**Livelihood, Economies and Societies**
Local	The pre-modern world
Regional	The pre-modern world
National	The age of industrialization
Global	The 19th century global economy Concept of Liberalization, privatization, and globalization
Employability	Skill Development
Entrepreneurship	Concept of Liberalization, privatization, and globalization
Skill Development	Skill Development
Professional Ethics	Concept of Liberalization, privatization, and globalization
Gender	Gender
Human Values	Human Values
Environment & Sustainability	Environment & Sustainability
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development

SEED112A	SCHOOL EXPOSURE II	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Field Exposure				
Co-requisites	--				

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 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	PSC
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	PS03	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														

Unit I	Activity 1: Planning and executing an indoor game Activity 2: Planning and executing morning assembly
Local	Planning and executing an indoor game
Regional	
National	
Global	
Employability	.

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

Sustainability	
Unit IV	**Activity 7: Observing a demo class and giving report** **Activity 8: Solving a problem related to teaching-learning process**
Local	
Regional	
National	
Global	
Employability	**Observing a demo class and giving report** **Solving a problem related to teaching-learning process**
Entrepreneurship	
Skill Development	**Observing a demo class and giving report**
Professional Ethics	**Observing a demo class and giving report** **Solving a problem related to teaching-learning process**
Gender	
Human Values	
Environment & Sustainability	
SDG	**Professional Development of Teachers**
NEP 2020	**Equitable and Inclusive Education**
POE/4th IR	**Skill Development**

SEMESTER III

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

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:

COI 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 chid'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

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 word - 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.

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																		
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PS03	PSO4	PSO5	PSO6	PSO7
CO1	3											2							
CO2		2		3										3					
CO3						3									2				
CO4										3							3		
CO5							3						2						
					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	
NEP 2020	
POE/4th IR	

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

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 towards 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

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. Geskell, 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

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	Assess different cognitive prerequisites of language acquisition.	**PO9**
CO2	Discover various techniques with respect to stages of language development.	**PO1**
CO3	Relate the process of language acquisition and learning in child language.	**PO2**
CO4	Identify the various language disorders during the language development of the students.	**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

SEED215A	Language Acquisition	3	3				3			3				3					

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1									3										2
CO2	3													3					
CO3		3																	
CO4						3												2	
CO5																			
CO6																			

Unit I	**Language and Cognition**
Local	• Cognitive Prerequisites for Language Acquisition • Biological Foundation • Language and Thought • Innate Hypotheses • Cognitive social and linguistic development • Piagetian and Vygotsky Perspectives
Regional	• Cognitive Prerequisites for Language Acquisition • Biological Foundation

	• Language and Thought • Innate Hypotheses • Cognitive, social and linguistic development • Piagetian and Vygotsky Perspectives
National	• Cognitive Prerequisites for Language Acquisition • Biological Foundation • Language and Thought • Innate Hypotheses • Cognitive, social and linguistic development • Piagetian and Vygotsky Perspectives
Global	• Cognitive Prerequisites for Language Acquisition • Biological Foundation • Language and Thought • Innate Hypotheses • Cognitive, social and linguistic development • Piagetian and Vygotsky Perspectives
Employability	• Piagetian and Vygotsky Perspectives • Cognitive Prerequisites for Language Acquisition
Entrepreneurship	
Skill Development	• Piagetian and Vygotsky Perspectives • Cognitive Prerequisites for Language Acquisition
Professional Ethics	• Piagetian and Vygotsky Perspectives • Cognitive Prerequisites for Language Acquisition
Gender	
Human Values	
Environment & Sustainability	
Unit II	**Language Development**
Local	• 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
Regional	• 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
National	• 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
Global	• 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
Employability	• 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
Entrepreneurship	
Skill Development	• The Role of Mothers and Caretaker Speech - Phonology - Morphology - Syntax and Semantics - Sociolinguistic Aspects
Professional Ethics	• The Role of Mothers and Caretaker Speech - Phonology - Morphology - Syntax and Semantics - Sociolinguistic Aspects
Gender	
Human Values	• The Role of Mothers and Caretaker Speech - Phonology - Morphology - Syntax and Semantics - Sociolinguistic Aspects
Environment & Sustainability	
Unit III	**Comprehension, Production & Formal means of Language Acquisition**
Local	• 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
Regional	• 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
National	• 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
Global	• 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
Employability	• Error Analysis • The Role of Errors in Language Production • Child Language vs. Language Acquisition • First Language Acquisition and Multilingualism
Entrepreneurship	-
Skill Development	• Error Analysis

	• The Role of Errors in Language Production
Professional Ethics	• Perceptual Strategies • Perception of Speech and Comprehension • Stages of Language Acquisition • Child Language vs. Language Acquisition • First Language Acquisition and Multilingualism
Gender	-
Human Values	• Perception of Speech and Comprehension
Environment & Sustainability	
Unit IV	**Language Acquisition Disorder**
Local	• 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
Regional	• 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
National	• 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
Global	• 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
Employability	• 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
Entrepreneurship	-
Skill Development	• 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
Professional Ethics	• Learning about language by studying language disorders • Linguistic Principles • Language among the Mentally Disabled
Gender	
Human Values	• Linguistic Principles • Language among the Mentally Disabled

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)** Quality Primary Education for all **(SDG 4.1) (Students will get the exposure on how the students acquire and learn the different languages at this stage through observing children in neighbourhood)** **Observing Children through the lense of Language Development-** 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	1. Foundational Literacy and Numeracy: An Urgent & 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).** **2.** Special attention will be given to employing local teachers or those with familiarity with local languages. **(NEP 2.3)**. **(- 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) 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) 4.(Students will develop the insight about the development of language through**

	observing children in his neighbourhood) **Students will discuss the various teaching methods to remove any barriers to learning and give all students equal opportunities to succeed (NEP 15.4)**
POE/4th IR	4. Technical skills that match industry needs **(Students will record the conversation of observing children and map the sounds through the PRAAT Software)**

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

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 complitation 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

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 play-ground 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 withsensitivity And responsibality.

The Child from an Affluent Home

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

Record Keeping

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.

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 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.

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.Lincoin (Eds.)
2. Berk, Laura (1996). Child development. *Prentice Hall, New Delhi.*
3. Bettelheim, Bruno (1987). The Importance of Play. T*he 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
CO1	Develop observation skills in understanding the child's behaviour.	PO3
CO2	Choose techniques to collect data for different observation situation.	PO9
CO3	Recognize different observation rules and assessments for overall development of the child.	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 217A	Observing Children	3		3						3				3	2

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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1	2		3			2							2	3	2				
CO2					2				3	2						2			
CO3	3			3														3	

Unit I	**Assignment1: Children at Play**
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	**Assignment 2: A day in the Life of Children**.
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	framework for gathering data: family, Physical space: Material Resources; Health and Nutrition; School Related Factors; Human Support Strictures; family IntBILeractions. 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.
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	**Assignment 3: Child in the Classroom**

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	

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

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

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 professionals 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 stiffing 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**
CO1	Participate in various co-curricular activities leading to their multifaceted personality development.	**PO7**
CO2	Recognition and understanding of self and emotions.	**PO7**
CO3	Explain stress, positive attitude and its effect of relationship management.	**PO6**
CO4	Learn about their strength and weaknesses.	**PO7**
CO5	Expand their vocabulary in Hindi and English language to improve their communication skill in the receptive skills.	**PO2**

		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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	2			2															
CO2		1			3				3		3					2		2	
CO3						3				3			3						
CO4							3								2				3
CO5			3					3				3					3		

Unit I	**Exploring the Self**
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	exploring ethics values ;developing empathy, personal and professionals aspirations
Gender	views on gender issues
Human Values	
Environment & Sustainability	personal; families and social conflicts; understanding social issues
Unit II	**Understanding Our Own Childhood**
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	
Gender	Articulating childhood memories and experiences-fantasy, longing, hurt, joy, recognition; major influences in childhood
Human Values	
Environment & Sustainability	discovering differences in nature and experiences
Unit III	**Fear and Trust**
Local	
Regional	
National	
Global	
Employability	
Entrepreneurship	Observing and understanding feelings of fear and trust in the past and present
Skill Development	facilitating creativity and learning exploring alternative interventions
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit IV	**Communication**
Local	

Regional	
National	
Global	
Employability	
Entrepreneurship	
Skill Development	
Professional Ethics	exploring personal and social relationship; analyzing the role of the media; understanding communication in friendship, in the family, in the community
Gender	
Human Values	
Environment & Sustainability	exploring the role of teacher as a communicator, in establishing a relationship with the child

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

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

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:

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	Understand the importance of environment through different activities.	**PO7**
CO2	Develop the ability to create best out of waste	**PO9**
CO3	Develop skills, other than classroom teaching, that needed to become an effective teacher	**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
SEED221A	Service Learning			3	3	3		3					3	3	

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1		2						3		3		2					3		
CO2		2						2		2		2			2		2		
CO3	2	2							2			2		3			3		

Unit I	**Activity 1** 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	Activity 2 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	**Activity 3** 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. Swachh 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/4th IR	Skill Development and Employability

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

***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

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., 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

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 223A	English I		3		3						3			3	

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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1	3												3						
CO2		3												3					
CO3								3									3		

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	• Heroic couplet • Spenserian Stanza • Blank verse

	• Terza Rima
Employability	• Heroic couplet • Spenserian Stanza • Blank verse • Terza Rima
Entrepreneurship	• Heroic couplet • Spenserian Stanza • Blank verse • Terza Rima
Skill Development	• Heroic couplet • Spenserian Stanza • Blank verse • Terza Rima
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	
Unit III	
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	
Unit IV	
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/4th IR	Cross-cultural Programme, The students will particiapte in Literature Festival (19th -23rd January 2023) or The Literary theater program telecasted in the Theatre auditorium/ Hands - on Experience

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

Course Objectives

इस पाठ्यक्रम का उद्द्येश्य 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 पायेंगें।

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

होनीचहिए 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 तकनिकी 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 , स्वरुप , महत्व

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

अनुवाद स्वरुप 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 :- प्रो0 रमेश गौतम (भारतीय ज्ञानपीठ दिल्ली)

Advanced Readings:

1. हिंदी साहित्य का इतिहास - डॉ. नगेन्द्र, राजकमल प्रकाशन
2. रचनात्मक लेखन : संपादक :- प्रो0 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 पायेंगें।	PO9
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।	PO10
CO4	प्रस्तुत पाठ्यक्रम हिंदी साहित्य की आदि काल से लेकर आधुनिक काल	PO9

	तक की सभी मुख्य साहित्यिक धाराओं और प्रवृत्तियों से विद्यार्थी समुचित रूप से अवगत हो पाएगा। और साहित्यिक अनुसंधान में अपना योगदान दे पाएगा।	

		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 225A	Hindi I	3	2	3		3		2	3	2	2			3	2

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	3												3						
CO2		3												3					
CO3								3									3		

SEED227A	Chinese- I	L	T	P	C
Version 2.0		2	0	0	0
Pre-requisites/Exposure					
Co-requisites	--				

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

Course Content

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 Range

- 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**

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

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	Read the pin-yin, Read the new words and Text	PO2
CO2	Pronounce Chinese sound system	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 227A	Chinese-I		3	3	3		2							3	2

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**
CO1		**3**													**2**
CO2			**3**			**2**								**3**	
	1=lightly mapped 2= moderately mapped 3=strongly mapped														

Unit I	**Pronouncing Initials and finals of Chinese sound chart**
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	
Unit II	**Reading of Chinese Characters with accurate sounds & tones**
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	
Unit III	**Comprehension of Chinese utterances and situational dialogues**
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	
Unit IV	**Reproducing grammatical correct introductory dialogues in Chinese**
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/4th IR	

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

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

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

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**

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

		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				

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	**2**													
CO2										**2**				
CO3			**3**											
CO4					**3**									
CO5								**3**						
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED231A	Physics I	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Physics				
Co-requisites	--				

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 I involves the study of basic concepts in Mechanics, Atomic Structure, Electrostatics, Magnetostatics and Electrodynamics.

Course Objectives

The course will enable the student-teachers to -

- Introduce the basic concepts of Newtonian mechanics.
- Enable the students to understand atomic structure and various principles and models governing the atomic physics.
- Introduce basic concepts of electricity and magnetism.

Course outcomes

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

CO1 Analyze and solve problems involving motion, forces, and energy using Newton's laws of motion and the principles of work, energy, and momentum.

CO2 understand the structure of atoms, including energy quantization, and apply the principles of atomic structure to explain phenomena such as atomic spectra and magnetic behavior.

CO3 Apply Gauss's law of electrostatics to calculate electric fields for symmetric charge distributions and analyze the behavior of electric fields.

CO4 Understand Maxwell's equations and their physical significance in describing electromagnetic phenomena, including the generation and propagation of electromagnetic waves.

Unit I: Mechanics **12 Contact Hours**

- Scalars and vectors,
- Addition of vectors,
- Newton’s laws of motion,
- Forces and pseudo-forces,
- Work-energy theorem,
- Conservative forces,
- Conservation of energy,
- Conservation of linear momentum,
- Centre of mass,
- Particle collision (in two dimensions).
- Rotational motion, torque and angular momentum.
- Conservation of angular momentum.
- Law of gravitation,
- Inertial and gravitational masses,
- Motion of planets and satellites,
- Kepler’s laws.

Unit II: Atomic Structure **15 Contact Hours**

- Bohr’s model of one electron atom,
- Wilson –Sommerfeld quantization rules,
- Bohr’s correspondence principle,
- Orbital and spin magnetic dipole moment,
- Larmor precession,
- Space quantization,

- Vector model of atom-coupling of orbital and spin angular momentum,
- L-S and j-j coupling.

Unit III: Electrostatics **15 Contact Hours**

- Electric charges,
- Coulomb's law,
- Principle of superposition,
- Electric field,
- Field due to a linear charge,
- field due to an electric dipole,
- Electrostatic potential,
- Flux,
- Solid angle,
- Electric lines of forces,
- Gauss' law of electrostatics and its applications.

Unit IV: Magnetostatics and Electrodynamics **10 Contact Hours**

- Magnetic Field,
- Magnetic flux density,
- Biot-Savart law,
- Ampere's law,
- Gauss' law of magnetism,
- Faraday's law of induction,
- Lenz's law,
- Maxwell's equations,
- Physical significance of Maxwell`s equations,
- Electromagnetic waves.

Practicum

1. To find the time period of the bar pendulum.
2. To determine the value of acceleration due to gravity using Kater`s pendulum.

3. To determine the frequency of A.C. mains with sonometer.

Suggested Readings

- Avadhanulu, M. N. and Kshirsagar, P.G. A Textbook of Engineering Physics.
- Beiser, A. Concept of Modern Physics.
- Mathur, D.S. Mechanics.

Advanced Readings

- University Physics with Modern Physics" by Hugh D. Young and Roger A. Freedman
- Quantum Mechanics: Concepts and Applications" by Nouredine Zettili
- Introduction to Electrodynamics" by David J. Griffiths
- Introduction to Electrodynamics and Radiation" by P.A.C. Krause and K.R. Carver

Online Resources

https://ocw.mit.edu/courses/physics/

http://hyperphysics.phy-astr.gsu.edu/hbase/hph.html

https://swayam.gov.in

http://egyankosh.ac.in

www.ignou.ac.in

Modes of Evaluation: Students' Performance Based on Written Examination

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	. Analyze and solve problems involving motion, forces, and energy using Newton's laws of motion and the principles of work, energy, and momentum.	PO3

CO2	understand the structure of atoms, including energy quantization, and apply the principles of atomic structure to explain phenomena such as atomic spectra and magnetic behavior	**PO11**
CO3	. Apply Gauss's law of electrostatics to calculate electric fields for symmetric charge distributions and analyze the behavior of electric fields.	**PO9**
CO4	Understand Maxwell's equations and their physical significance in describing electromagnetic phenomena, including the generation and propagation of electromagnetic waves.	**PO10**

	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 Title & Code	**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**
Physics 1 SEED23 1A			3						2	3	2	2	3	

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

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**	**PSO 1**	**PSO 2**	**PSO 3**
CO 1			**3**										**2**	
CO 2								**3**			**3**			**3**
CO 3														
CO 4									**3**					
CO 5										**3**				

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

SEED233A	Chemistry I	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Chemistry and its theories				
Co-requisites	--				

Course Overview

This course deals with the basic concept of organic chemistry, Stereochemistry principles, theory of Atomic Structure and Characteristics of gases, ideal gases, gas laws. An atom is the smallest constituent unit of ordinary matter that has the properties of a chemical element. This course helps the students to understand the structure of atom on the basis of various models and their atomic spectrum and builds a basic knowledge about the structure of atom. The study of this course will enable the students to understand various types of effects like inductive, electrometric, resonance accounts for stabilization of molecules. This course also deals with the various concept of Stereochemistry for molecules. Further students will develop an understanding of composition of solid, liquid, gas and plasma.

Course Objectives

The course will enable the student-teachers to -

- Know the stability of organic compounds along with energy states.
- Understand the two dimensional structure of organic compounds on the basis of projection formula
- Acquaint students with the physical properties of electrons regarding their shape, size and position.
- Have knowledge of applicability of different states of matter in our day to day life

Course Outcome

On completion of this course, the student-teacher will be able to:
CO1 Classify and name organic compounds based on their functional groups and molecular structures
CO2 Analyze and predict the stereo chemical properties of organic compounds using Fischer, Newman, and sawhorse projections, as well as the E/Z notation
CO3 Apply quantum numbers and orbital shapes to describe the electronic structure of atoms and predict their chemical behavior.
CO4 Calculate and interpret the properties of gases and liquids, including gas laws, vapor pressure, boiling point, surface tension, and viscosity.

Unit I: Basics of Organic Chemistry **12 Contact Hours**

- Organic compounds: classification and nomenclature,
- Hybridization,

- Shapes of molecules,
- Influence of hybridization on bond properties,
- Electronic displacements: inductive, electromeric, resonance and mesomeric effects, hyper conjugation and their applications;
- Dipole moment,
- Homolytic and heterolytic fission with suitable examples,
- Electrophiles and nucleophiles;
- Nucleophlicity and basicity; types, shape and their relative stability of carbonations,
- Carbanions, free radicals and carbenes,
- Introduction to types of organic reactions and their mechanism: addition, elimination and substitution reactions.

Unit II: Stereochemistry 15 Contact Hours

- Fischer projection,
- Newman and sawhorse projection formulae and their inter conversions;
- Geometrical isomerism: cis–trans and, syn-anti isomerism e/z notations with c. i. p rules, Relative and absolute configuration: d/l and r/s designations.

Unit III: Atomic Structure 15 Contact Hours

- Bohr's theory,
- Its limitations and atomic spectrum of hydrogen atom,
- Wave mechanics: de broglie equation,
- Heisenberg's uncertainty principle and its significance,
- Schrodinger's wave equation,
- Significance of ψ and ψ^2,
- Quantum numbers and their significance,
- 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.

Unit IV: Gases and Liquids 10 Contact Hours

- Characteristics of gases,

- Ideal gases,
- Gas laws,
- Deviation from ideal behavior,
- Van der wall's equation (no derivation but explanation regarding a and b),
- Difference between gases and liquids on the basis of their molecular structure,
- Vapour pressure of liquids,
- Relationship between vapour pressure and boiling point,
- Surface tension, viscosity, their experimental determination and applications.

Practicum

1. Estimation of Fe (II) and oxalic acid solutions using standardized $KMnO_4$ solution.
2. Estimation of Fe (II) solutions with $K_2Cr_2O_7$ using external indicator.
3. Estimation of Cu (II) and $K_2Cr_2\ O_7$ Using sodium thiosulphate solution (Iodimetrically).
4. Estimation of available chlorine in bleaching powder iodometrically.
5. Determination of Surface tension of liquid.

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.
- Castellin, Gilbert, W. (1990). Physical Chemistry, Narosa Publishing House/ Addison – Wesley: New Delhi.
- Cotton, F. A. and Wilkinson, G. (1998). Advance Organic Chemistry, John Wiley and Sons: Sussex, Fifth Edition.
- Day, M. And Selbin J. (1972). Theortical inorganic chemistry, East Wst Press: Delhi,.
- Donald, H. Andrews(1970). Introductory Physical Chemistry, McGraw Hill: New York.
- Giri, O. P. et. al. Practical chemistry, S. Chand and company Pvt. Ltd., New Delhi.
- Khosla, B. D. etl al.(1982).A senior practical physical chemistry, R. Chand and CO.: New Delhi.
- Marr, G. and Rockett, B. W. (1972). Practical inorganic chemistry, London; New York: Van Nostrand Reinhold.
- Morrison, R. N. and Boyd, R. N. Organic Chemistry, Dorling Kindersley (India) Pvt. Ltd., Pearson Education.

- 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.

Advanced Reading

- Organic Chemistry" by Jonathan Clayden, Nick Greeves, and Stuart Warren
- Organic Chemistry" by Paula Yurkanis Bruice:
- Physical Chemistry" by Peter Atkins and Julio De Paula
- Physical Chemistry: A Molecular Approach" by Donald A. McQuarrie and John D. Simon

Online References

5. https://swayam.gov.in
6. http://egyankosh.ac.in
7. 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 and name organic compounds based on their functional groups and molecular structures*	PO1
CO2	*Analyze and predict the stereo chemical properties of organic compounds using Fischer, Newman, and sawhorse projections, as well as the E/Z notation*	PO6
CO3	*Apply quantum numbers and orbital shapes to describe the electronic structure of atoms and predict their chemical behavior.*	PO7
CO4	*Calculate and interpret the properties of gases and liquids, including gas laws, vapor pressure, boiling point, surface tension, and viscosity.*	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 Title & Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
Chemistry1 SEED233A	3		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**	**PSO1**	**PSO2**	**PSO3**
CO1										3		**2**		
CO2									3				**3**	
CO3										3				
CO4									3					
1=lightly mapped 2= moderately mapped 3=strongly mapped														

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

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

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 intomajor 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.

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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 repoduction, 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 pend 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 Piess: Cambridge.
2. De Witt, William. Biology of the Cell - An Evolutionary Approach, W.B. Saunders Co: London, Keeton.
3. Dhami, 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

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

Examination

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	Understand the existing biodiversity on earth.	**PO1**
CO2	Understand the mechanism of naming plant and animal species.	**PO3**
CO3	Identify plant and animal species on the basis of their characteristics and identifying features.	**PO3**
CO4	Analyze the biological evolution and their evidences.	**PO3**
CO5	Comprehend the mechanism of evolution, variation and natural selection.	**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	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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1	2													1					
CO2			3										2	2					
CO3			3											2			2		
CO4			3																
CO5											3								2

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.
Unit II	**Salient features and classification of animals**
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 2. Porifera: Structure and reproduction, e.g. Sycon 3. Cnidaria: morphology and reproduction e.g. Coral 4. Platyhelminthes: morphology, reproduction and its relation to man, e.g. tapeworm. 5. Aschelminthes: morphology and repoduction, e.g. Ascaris. 6. Annelida: morphology and reproduction, e.g. earthworm 7. Arthropoda: morphology and reproduction, e.g. cockroach. Echinodermata: morphology and reproduction, e.g. starfish Chordata 8. Pisces: generalised account of fish 9. Amphibia: e.g. Frog 10. Reptilia: e.g. Lizard 11. Aves: a general account of birds 12. Mammalia: e.g. rabbit, rat and man
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	

Unit III	**Origin of Life**
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	**Evolution**
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/4th IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development, Soft Skills and Employability

SEED237A	HISTORY I	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic Understanding of History and Freedom Struggle.				
Co-requisites					

Course Overview

The course attempts to make students aware about the importance of History as a discipline. It will also talk about the transformations that happened in the past that led to the present day structures and will discuss various sources that constitutes the modern institutions. It will aware the students about the processes of historical enquiry and to persuade them to look for interconnections between structures and processes in History. The course makes no effort to provide students with an exhaustive survey of all the phases of Indian history or the history of any other particular country. The focus is therefore on the general problems and issues of historical inquiry.

Course Objectives

The course will enable the student-teachers to -

- Understand the conceptual basis of History as a discipline.
- Acquaint with different approaches to study History.
- Familiarize the students with major historical revolutions their causes and effects.
- Develop understanding of European and Indian history.

Course Outcomes

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

CO1 Understand the concepts and methods of History as a discipline, including the challenges of historical objectivity and interpretation.

CO2 Explore the transition from hunting and gathering societies to agricultural societies, examining their key features and societal implications.

CO3 Analyze the democratic revolution in France, investigating its causes and effects on society, politics, and culture.

CO4 Examine British colonial rule in India, studying its policies, ideologies, and impact on Indian society and the rise of organized nationalism.

Unit I: The Problematic of Historical Interpretation and History 12 Contact Hours

- Understanding History- The conceptual basis of History as a discipline
- The question of historical objectivity and truth
- Historiography - Different Approaches.
- Interpreting Sources- The nature of historical source (archaeological, numismatic, epigraphic, literary, written /oral), problems of interpretation

Unit II: Basis and Characteristics of Different Societal Forms 12 Contact Hour

- Hunting and gathering (Paleolithic, Mesolithic and Neolithic Age)
- Domestication of plants and animals (pastoralism, shifting cultivation)

Unit III: Emergence of States and Causes that led to Revolutions 15 Contact Hour

- Monarchies/ Republics
- A Comparative Study- The absolutist state in Europe, The Mughal state in India, Regional state forms in 18^{th} Century
- Renaissance, Industrialization and Imperialism
- The Democratic Revolution: France
- The Socialist Revolution: Russia

Unit IV: Advent of Europeans and Transfer of Power 15 Contact Hour

- Policies and Programme of Expansion, Instruments of Expansion (Diplomacy & Wars) by British
- Ideology and Governance- Ideology of Raj and Racial Attitudes, First war of Independence of 1857, British Repression and Response, Failure & impact of the First war of Independence of 1857, British Relations with Princely States, The Acts - 1858, 1892, 1919 & 1935, Emergence of Organized Nationalism i.e. Indian National Congress and its Programme, Swadeshi Movement.
- Revolution verses Politics- Gandhian Movement (Nature, Programme, Social Composition), The Revolutionary Movements (Simon Commission, August Offer, Cripps Mission, Cabinet Plan), Communal Politics and Partition of India (Mountbatten Plan, C. Rajagopalacharya Plan), emergence of New India and the transfer of Power

Advanced Readings

1. Carr, E.H. (1932.) What is History?, Macmillan: London,
2. Clarke and Piggett. (1965). Pre-Histories Societies, Penguin; London,
3. Thapar, R., (1966). History of India: Penguin: England,

Suggested Readings

1. Dev, Arjun and Dev, Indira Arjun (2009). History of the World, Orient Black Swan, New Delhi.
2. Hilton, Rodney (Ed.). (1978). The Transition from Feudalism to Capitalism, Verso: London.
3. Longworth, Philip (1997). The Making of Eastern Europe: From Prehistory to Postcommunism, Palgrave Macmillan, Gurugram.
4. Prasad, Ishwari (2018). A History Of Modern Europe (From 1453 TO 1789 A. D.), Surjeet publication, Delhi.

Online References

1. https://egyankosh.ac.in/handle/123456789/44373
2. https://egyankosh.ac.in/handle/123456789/5315
3. https://egyankosh.ac.in/handle/123456789/44358

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 foundational concepts and methods of History as a discipline, including the challenges of historical objectivity and interpretation.	PO1
CO2	Explore the transition from hunting and gathering societies to agricultural societies, examining their key features and societal implications.	PO7
CO3	Analyze the democratic revolution in France, investigating its causes and effects on society, politics, and culture.	PO3
CO4	Examine British colonial rule in India, studying its policies, ideologies, and impact on Indian society and the rise of organized nationalism.	PO7

	Teaching Competencies	Effective Communication	Critical Thinking	Ethics	Life-long Learning	Sensitive towards	Self-Development and	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**
History-I SEED237A	1		3				2		3				2	

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

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**	**PSO 1**	**PSO 2**	**PSO 3**
CO 1	**3**												**2**	
CO 2							**3**							
CO 3			**3**											
CO 4							**3**							
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED239A	Political Science I	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of political concepts and theories				
Co-requisites	--				

Course Overview

The current study of political science fits under the broader category of social sciences. It is specifically related to the study of laws, government, and politics. This course in Political Science explores and examines the connections between the functions of the state and the conditions that it creates. It takes into account human behavior and political thinking. Political science also takes into consideration many other subjects such as economics, sociology, behaviorism, and history, as these fields all affect the role and function of the state in contemporary society.

Course Objectives

The course will enable the student-teachers to -

- Explain the nature and framework of Politics with reference to traditional, behavioural and post- behavioural developmental era.
- Demonstrate an understanding about the different theories that lead to the formation of state.
- Develop an understanding of important concepts/terminologies in the knowledge domain of political science.

Course Outcomes

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

CO1 Define and analyze the scope of political science and the nature of politics.

CO2 Evaluate theories explaining the origin of the state, including social contract, historical, evolutionary, and Marxist perspectives.

CO3 Examine the development and characteristics of sovereignty, including different types and Austin's theory, while considering pluralistic critiques.

CO4 Understand the meaning and forms of power, including political, economic, and ideological manifestations.

CO5 Develop analytical skills to assess power dynamics in politics and evaluate their implications for decision-making and governance.

Unit I: Explanatory frame work of Politics **12 Contact Hours**

- Definition, nature and scope of Political Science,
- Meaning and nature of politics with reference to traditional, behavioural and post-behavioural development.

Unit II: Theories of the origin state **15 Contact Hours**

This will talk about the theories that lead to the origin of state i.e.

- Social contract
- Historical
- Evolutionary
- Marxist

Unit III: Sovereignty **15 Contact Hours**

- Development of the concept of Sovereignty
- Characteristics of Sovereignty
- Types of Sovereignty
- Austin's theory of sovereignty
- The pluralistic attack on Austin's theory of Sovereignty.

Unit IV: Power **10 Contact Hours**

- Meaning and Definition of Power,
- Forms of Power, Political Power, Economic Power, Ideological Power.

Suggested Readings

- Gauba,O.P.(2018). An Introduction to Political Theory, Mayur Publications.
- Heywood,Andrew,Key Concepts to Politics.

Advanced Readings

- Chandra, B. (2016). India's Struggle for Independence. Penguin Random House India.
- Jha, P. (2018). The Battle of Belonging: On Nationalism, Patriotism, and What It Means to Be Indian. Aleph Book Company.
- Skocpol, T. (1979). States and Social Revolutions: A Comparative Analysis of France, Russia, and China. Cambridge University Press.
- Huntington, S. P. (1991). The Third Wave: Democratization in the Late Twentieth Century. University of Oklahoma Press.
- Tilly, C. (2003). The Politics of Collective Violence. Cambridge University Press.

Online References

1. https://swayam.gov.in
2. http://www.ncte.nic.in
3. http://egyankosh.ac.in
4. 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	Define and analyze the scope of political science and the nature of politics.	PO1
CO2	Evaluate theories explaining the origin of the state, including social contract, historical, evolutionary, and Marxist perspectives.	PO6
CO3	Examine the development and characteristics of sovereignty, including different types and Austin's theory, while considering pluralistic critiques.	PO7
CO4	Understand the meaning and forms of power, including political, economic, and ideological manifestations.	PO9
CO5	Develop analytical skills to assess power dynamics in politics and evaluate their implications for decision-making and governance.	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 I 239A	3		3			3	2		3			2	3	

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

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1											3					2			
CO2								3						3					
CO3			3															3	
CO4							3												
CO5									3										

Unit I	Explanatory frame work of politics
Local	Definition, nature and scope of Political Science
Regional	Meaning and nature of politics with reference to traditional, behavioural and post- behavioural development
National	Traditional development approach
Global	Behavioural and post- behavioural development
Employability	Behavioural and post- behavioural development
Entrepreneurship	Scope of Political Science
Skill Development	Behavioural and post- behavioural development
Professional Ethics	Behavioural and post- behavioural development
Gender	Traditional development approach
Human Values	Meaning and nature of politics with reference to traditional, behavioural and post-behavioural development
Environment & Sustainability	Traditional development approach
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Unit II	Theories of the origin state
Local	Social contract , Historical, Evolutionary ,Marxist
Regional	Social contract , Historical, Evolutionary ,Marxist
National	Social contract , Historical, Evolutionary ,Marxist
Global	Social contract , Historical, Evolutionary ,Marxist
Employability	Social contract , Historical, Evolutionary
Entrepreneurship	Historical, Evolutionary

Skill Development	Evolutionary ,Marxist
Professional Ethics	Social contract , Historical, Evolutionary ,Marxist
Gender	Social contract
Human Values	Social contract , Historical, Evolutionary ,Marxist
Environment & Sustainability	Historical, Evolutionary, Marxist
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Unit III	**Sovereignty**
Local	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty
Regional	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty
National	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty
Global	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty
Employability	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty
Entrepreneurship	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty
Skill Development	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty
Professional Ethics	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty

Gender	Potentially in relation to the theories and concepts
Human Values	Development of the concept of Sovereignty Characteristics of Sovereignty Types of Sovereignty Austin's theory of sovereignty The pluralistic attack on Austin's theory of Sovereignty
Environment & Sustainability	Development of the concept of Sovereignty (in relation to environmental aspects)
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development
Unit IV	**Power**
Local	Meaning and Definition of Power
Regional	Forms of Power
National	Political Power Economic Power Ideological Power
Global	Political Power Economic Power Ideological Power
Employability	Political Power Economic Power Ideological Power
Entrepreneurship	Political Power Economic Power Ideological Power
Skill Development	Political Power Economic Power Ideological Power
Professional Ethics	Political Power Economic Power Ideological Power
Gender	Power dynamics and its impact on gender roles
Human Values	Meaning and Definition of Power Forms of Power
Environment & Sustainability	Ideological Power (in terms of influencing attitudes and actions towards environmental conservation and sustainability)
SDG	Sustainable Development and Global Citizenship
NEP 2020	Equitable and Inclusive Education: Learning for All
POE/4th IR	Employability, Entrepreneurship, Skill Development

SEED241A	Geography I	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of concepts and terminology				
Co-requisites	--				

Course Overview

This course will map the growth of Geography as discipline and also provide an overview of Contemporary Geography. Furthermore this course designed to provide an understanding of the four basic environmental realms – the atmosphere, biosphere, hydrosphere, and lithosphere – including their areal differentiations and associations upon the earth's surface. Attention is given to terminology, to classifications, to the physical processes by which the natural environment is developed and governed, to generalizing concepts .Focus of the course is also on global climatic changes and their effects.

Course Objectives

The course will enable the student-teachers to -

- Understand the need of geography as a recognizable, organized discipline with a central point of view.
- Understand the relevance of geography to the modern society.
- Gain an insight into the origin and evolution of the Earth.
- Understand the four basic environmental realms – the atmosphere, biosphere, hydrosphere, and lithosphere.
- Reflect upon the causes and effects of Climatic changes.

Course Outcomes

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

CO1. Demonstrate knowledge of influential geographers' historical contributions and their impact on geography's development, encompassing figures.

CO2 Explain the Earth's origin, evolution, and its solar system position, including rotational and revolutionary motions.

CO3 Analyze the Earth's interior using seismic evidence, explore theories on the origin of continents and ocean basins and comprehend plate movements, interactions, volcanism, and seismic activity.

CO4 Understand the atmospheric components and structure investigate and familiarize with climate classification schemes as well as causes and impacts of global climatic changes.

CO5 Explore contemporary geography perspectives and demonstrate knowledge of influential geographers' historical contributions and their impact on geography's development.

Unit I **12 Contact Hours**

- Geography as a discipline: The contributions of Varenius, Kant, Reine, Humboldt and Ritter. Influence of Richthofen and Darwin, F. Ratzel etc.
- Contemporary geography: Environmentalism, Positivism in Geography. Humanistic Geography. Marxist Geography and critical social theory. Development in Indian Geography.

Unit II **15 Contact Hours**

- Origin and Evolution of the Earth: Introduction to the solar system, Motions of Earth: Rotation, Revolution, Occurrence of Day and Night; change of seasons; Latitudes and Longitudes.
- Earth’s Interior: Origin of contents and ocean basis Wagener’s Continental drift theory, Theory of Plate Tectonics Earthquakes and Volcanoes, Folding and faulting Origin of the Earth: Nebular hypothesis (old Theory) and Big-Bang Theory. Evolution of continents, atmosphere and oceans.

Unit III **15 Contact Hours**

- Constitution of Earth’s interior (based on Seismic Evidences),
- Origin of the continents and ocean basins.
- Wegner’s theory of Continental drift and Plate Tectonics.
- Plate movements and interactions-Volcanism and seismicity.

Unit IV **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.

Suggested Readings

- Aggarwal, S. N. (1987). Population Problem, Tata McGraw Hill, New Delhi.
- Ahmad, E. (1985). Geomorphology, Kalyani Publishers, New Delhi.
- Alexander, J. W. and Bibson, L. J. (1979). Economic Geography, Prentice Hall, Englewood Cliffs.
- Alexander, J. W. and Hartshorne, T. A. (1988). Economic Geography, Prentice Hall, New Jersey.
- Barry, R. G. and Chorley, R .J. (1976). Atmosphere, Weather and Climate, Methuen, London.
- Berry, B. J. L. et. al. (1987). Economic Geography, Resource use, occasional choices and regional specialization in the Global Economy, Prentice Hall, New Jersey.
- Chorley, R. J. (Ed.) (1973). Directions in Geography, Metheun, London.
- Chorley, R. J. and Hagget, P. (Ed.) (1973). The Changing Nature of Geography, Methuen, London.

Advance Readings

- Ahrens, C. D. (2018). Meteorology Today: An Introduction to Weather, Climate, and the Environment (12th ed.). Cengage Learning.
- Clifford, N., Holloway, S., Rice, S. P., & Valentine, G. (2018). Key Concepts in Geography. Sage Publications.
- Johnston, R., Gregory, D., Pratt, G., Watts, M. J., & Whatmore, S. (Eds.). (2011). The History of Geography: A Reader. Wiley-Blackwell.
- Kump, L. R., Kasting, J. F., & Crane, R. G. (2013). The Earth System (3rd ed.). Prentice Hall.
- Matthews, J. A., & Herbert, D. T. (2008). Geography: A Very Short Introduction. Oxford University Press.
- 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.
- Press, F., & Siever, R. (1986). Earth. W. H. Freeman and Company.

- Tarbuck, E. J., & Lutgens, F. K. (2014). Earth: An Introduction to Physical Geology (11th ed.). Pearson.

Online References

5. https://swayam.gov.in
6. http://www.ncte.nic.in
7. http://egyankosh.ac.in
8. 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	Demonstrate knowledge of influential geographers' historical contributions and their impact on geography's development, encompassing figures.	PO1
CO2	Explain the Earth's origin, evolution, and its solar system position, including rotational and revolutionary motions.	PO5
CO3	Analyze the Earth's interior using seismic evidence, explore theories on the origin of continents and ocean basins and comprehend plate movements, interactions, volcanism, and seismic activity.	PO9
CO4	Understand the atmospheric components and structure investigates and familiarize with climate classification schemes as well as causes and impacts of global climatic changes.	PO11
CO5	Explore contemporary geography perspectives and demonstrate knowledge of influential geographers' historical contributions and their impact on geography's development.	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**
Geography I 241A	3		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**												**3**	
CO2					**3**									**3**
CO3									**3**					
CO4											**3**			
CO5			**3**											
1=lightly mapped			2= moderately mapped								3=strongly mapped			

SEED243A	ECONOMICS I	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Growth and Development of Indian economy				
Co-requisites	--				

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

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

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 economics and its principles	PO1

CO2	Describe the concept of Demand and Supply and its relevance in real world	**PO7**
CO3	Illustrate how microeconomic concepts can be applied to analyze real-life situations.	**PO7**
CO4	Use the concepts of consumer, producer and total surplus to explain why markets typically lead to efficient outcomes	**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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 243A	Economics I		3	2	3			3		2				3	

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					
CO3							3									3			
CO4					3							3						3	

CO 5				3														2

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

Unit I	**Introduction to Economics**
Local	
Regional	
National	
Global	
Employability	• Definition and scope of economics • Forms of economic analysis – o Micro vs. Macro o Partial vs. General o Static vs Dynamic o Positive vs. Normative o Short run vs. Long run • Types of economic systems • Basic concepts of economic problems • Economic rationality, optimality
Entrepreneurship	• Definition and scope of economics • Forms of economic analysis – o Micro vs. Macro o Partial vs. General o Static vs Dynamic o Positive vs. Normative o Short run vs. Long run • Types of economic systems • Basic concepts of economic problems • Economic rationality, optimality
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• Definition and scope of economics • Forms of economic analysis – o Micro vs. Macro o Partial vs. General o Static vs Dynamic o Positive vs. Normative o Short run vs. Long run • Types of economic systems • Basic concepts of economic problems • Economic rationality, optimality

Unit II	**Demand and Supply**
Local	
Regional	
National	
Global	
Employability	• 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
Entrepreneurship	• 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
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• 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	**Production Analysis, Costs and Market Structure**
Local	
Regional	
National	

Global	
Employability	• 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
Entrepreneurship	• 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
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• 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 IV	**Determination of Factor Prices, Rent, Interest, Wages and Profit**
Local	
Regional	
National	
Global	
Employability	• 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
Entrepreneurship	• 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
Skill Development	
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• 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
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), Professional Education (17.1-17.5), Towards a More Holistic and Multidisciplinary Education (11.1- 11.13)
POE/4th IR	Focus on Employability Skills (Local/Regional and Global)/ Skill Development, Entrepreneurship Employability

SEMESTER IV

SEED214A	**COMMUNICATION IN TEACHING-LEARNING PROCESS**	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Communication and Learning				
Co-requisites	--				

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

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

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 role of communication in personal and professional success.	PO2
CO2	Learn about to communicate effectively orally and in writing.	PO9
CO3	Develop awareness of appropriate communication strategies.	PO3
CO4	Students will be able to find, use, and evaluate primary academic writing associated with the communication discipline.	PO10
CO5	Analyze a variety of communication acts and ethically use, document and integrate sources.	PO4

		Teaching Competenc	Effective Communic	Critical Thinking	Ethics	Life-long Learning	Sensitive towards	Self-Develonm	Technolo	Professio nal	General and	Pedagogic al	Developme ntal tasks	Diverse Needs	Research and
Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 214A	Communication In Teaching-Learning Process		3	2	3			3		2				3	

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

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					
CO3							3									3			
CO4					3							3						3	
CO5				3															2

Unit I	**Teacher as Communicator**
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	Communication, language and ethics.
Unit II	**Reading as resource**
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 Development	Analyzing a text from the perspective of students

Professional Ethics	Reading as resource
Gender	
Human Values	Analyzing a text from the perspective of students
Environment & Sustainability	Reading as resource
Unit III	**Writing Skills for Teachers**
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	
Unit IV	**Speaking Skills**
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/4th IR	Global Education Knowledge Practical Courses from Industry/Alumni Technical Skills that match Industry Needs Updated Curriculum Team Work Simulations

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

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

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 acitivity; 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

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	Make the distinction between different kinds of knowledge, based on their sources	PO1
CO2	Develops as each person makes logical connections.	PO3
CO3	Experiences stimulate the development of logico-mathematical knowledge	PO5
CO4	The actual neural connections which represent this knowledge are built from the inside.	PO7

		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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1																			
CO2																			
CO3																			
CO4																			
CO5																			
CO																			

6																		

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	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 acitivity; drill memorization and algorithmization.
Regional	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 acitivity; drill memorization and algorithmization.
National	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 acitivity; drill memorization and algorithmization.
Global	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 acitivity; drill, memorization and algorithmization.
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	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.
Regional	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.
National	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.
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/4th IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

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

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

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.
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:

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	Prepare different art forms across curriculum for child growth and development.	**PO5**
CO2	Demonstrate creative arts forms in education through their own experience and free expressions.	**PO3**
CO3	Associate Art with the cultural heritage of the country	**PO7**
CO4	Inculcate sensitivity and sensibility towards the spirit of Indian Art and Craft	**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	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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1					3									3					
CO2			3													2			
CO3							3								3				
CO4				3													3		

Unit I	**Appreciation of Art**
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.
Unit II	**Visual Art and Craft**
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	**Performing Art: Dance, Music, Theatre and Puppetry**

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	**Ensure significant mobilization of resources from a variety of sources..Quality primary/ Secondary Education for all Skills for Decent Work** **Safe and Inclusive Learning Environments** **Professional Development of Teachers**
NEP 2020	Curtailing Dropout Rates and Ensuring Universal Access to Education at All LevelsCurriculum 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/4th IR	**Cross cultural programmes** **Technical Skills that match Industry Needs** **Focus on Employability Skills (Local/Regional and Global)** **Team Work** **Simulations**

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

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 ṣaṭkarma in developing a humane psycho-physical body.
- Demonstrate some important āsanas, 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 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 the text.

Course Content

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
    - Āsanas
    - Pranayama, eight kumbhakas
    - Dhāraṇā on five elements
    - Mudras and bandhas
    - Ṣaṭkarma, 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-saṁyamana (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 āsanas
- 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 niketan 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)

Mapping between COs and POs		
	Course Outcomes (COs)	**Mapped Programme Outcomes**
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.	**PO11**
CO2	Practice mental and physical hygiene.	**PO7**
CO3	Maintain good mental and physical health along with emotional stability.	**PO10**
CO4	Attain higher level of consciousness.	**PO4**
CO5	Understand the knowledge of Kriyas, Asanas, Mudras, Bandas, Pranayama and meditative postures and their relevance for gaining sound mind and healthy body	**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	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																		
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PS03**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1	3											2							
CO2		2		3										3					
CO3						3									2				
CO4										3							3		
CO5							3						2						
	1=lightly mapped 2= moderately mapped 3=strongly mapped																		

Unit I	
Local	Yoga: meaning and initiation Definitions of Yoga
Regional	
National	
Global	
Employability	• Origin and history of development of Yoga • Psychological aspects leading to origin of Yoga
Entrepreneurship	
Skill Development	• Misconceptions about Yoga • Basis of Yoga • The two schools of Yoga: Raja Yoga and Hatha Yoga ,Yogic practices for healthy living.
Professional Ethics	
Gender	
Human Values	•The two schools of Yoga: Raja Yoga and Hatha Yoga ,Yogic practices

	for healthy living.
Environment & Sustainability	• Misconceptions about Yoga • Basis of Yoga • Yoga in medieval times • Yoga in modern times
Unit II	
Local	• Understanding Aṣṭāṅga Yoga of Patañjali
Regional	
National	• Historicity of Yoga as a discipline
Global	• Historicity of Yoga as a discipline
Employability	• Classification of Yoga and Yogic texts • Yogasūtra of Patañjali • Haṭha Yoga texts •
Entrepreneurship	
Skill Development	• Classification of Yoga and Yogic texts a) Yogasūtra of Patañjali b) Haṭha Yoga texts • Relationship between Pātañjala Yoga and Haṭha Yoga • Meditational processes in Pātañjala Yoga Sūtra
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• Haṭha Yogic practices • Āsanas • Pranayama, eight kumbhakas • Dhāraṇā on five elements • Mudras and bandhas • Ṣaṭkarma, the set of six cleansing techniques
Unit III	
Local	• Need of Yoga for positive health
Regional	
National	
Global	
Employability	• Yogic principles of healthy living (āhāra, vihāra, ācāra, vicāra) • Integrated approach of Yoga for management of health • Prāṇa-saṁyamana (canalization of energy dynamics) through dietary considerations • Rationale of Yogic diet.
Entrepreneurship	
Skill Development	• Potential causes of ill health • How stress is alleviated through Yoga? • Stress management through Yoga and Yogic dietary considerations

Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• 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
Unit IV	Practicum
Local	
Regional	
National	
Global	
Employability	• Guidelines for the practice of ṣaṭ kriyās • Guidelines for the practice of āsanas • Guidelines for the practice of prāṇāyāma • Guidelines for the practice of kriyā Yoga • Guidelines for the practice of meditation
Entrepreneurship	
Skill Development	• Guidelines for the practice of ṣaṭ kriyās • Guidelines for the practice of āsanas • Guidelines for the practice of prāṇāyāma • Guidelines for the practice of kriyā Yoga • Guidelines for the practice of meditation
Professional Ethics	
Gender	
Human Values	
Environment & Sustainability	• Standing position • Sitting position • Prone position • Supine position • Kriyās • Mudrās • Prāṇāyāmas
SDG	**" Quality education for all Professional Development of Teachers Early Childhood/ Pre-Primary Education for all Skills for Decent Work "**
NEP 2020	**"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) "**
POE/4th IR	**"Skill Development Employability**

	Skill Embedded Courses Development **Hands-on Experience** **Projects** "

SEED222A	UNDERSTANDING THE SELF	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Recall their life experiences				
Co-requisites	--				

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

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
- BuildinganunderstandingaboutphilosophicalandculturalperspectivesofSelf and
- Developing an understanding of one’s own philosophical and cultural perspectives as ateacher

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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1							**3**							
CO2													**3**	
CO3			**3**											
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED224A	SCHOOL ATTACHMENT AND COMMUNITY LIVING	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Skills of observing the surroundings				
Co-requisites	--				

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:

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	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 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 224A	School Attachment Programme and Community Living			3				3		3			3		

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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1									3			3							
CO			3											3			2		

2																			
CO 3							3								3				

Unit I	**School Attachment Programme**
Local	One week School Attachment Programme shall be carried out during the second semester in local/nearby schools e.g. Government, Private, Urban, Rural, and Special Schools.
Regional	various curricular activities, e.g. sports and games, dance, songs;
National	various curricular activities, e.g. sports and games, dance, songs;
Global	
Employability	the teaching-learning process in the classroom, ICT use, student participation, classroom management.
Entrepreneurship	The institute shall develop these schedules; and orient the student-teachers on the process of observation as well as use of the schedules.
Skill Development	The student-teachers shall observe curricular activities for which they may use observation schedules.
Professional Ethics	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.
Gender	
Human Values	The student-teachers shall observe curricular activities for which they may use observation schedules.
Environment & Sustainability	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.
Unit II	**Community Living**
Local	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,
Regional	preparing school development plan
National	sharing cultural practices, holding cultural programmes
Global	
Employability	the student-teachers shall prepare a detailed report of the programme, individually and/or in group
Entrepreneurship	
Skill Development	preparing school development plan
Professional Ethics	safety education and gaining community‘s perception about and aspirations from formal education system
Gender	
Human Values	sharing cultural practices, holding cultural programmes
Environment & Sustainability	safety education and gaining community‘s perception about and aspirations from the formal education system.

SDG	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), Catalysing Quality Academic Research in All Fields through a new National Research Foundation(17)
POE/4th IR	Updated Curriculum (As per NCTE Norms)

SEED226A	ENGLISH II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Communication Skills				
Co-requisites	--				

***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

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

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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**													
CO2									**3**				**3**	
CO3	**3**													
1=lightly mapped					2= moderately mapped							3=strongly mapped		

SEED228A	Hindi II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic Knowledge of Hindi Bhasha and Literature				
Co-requisites	--				

Course Objectives

इस पाठ्यक्रम का उद्द्येश्य है,

- मध्यकालीन अर्थात 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, विज्ञानं, दर्शन, समाज और राजनीति का समेकित और गहन अध्ययन है।

वहीँ ब्रज भाषा द्वारा प्रभावित रीतिकाल में जहां एक ओर साहित्यिक कला का सौंदर्य दर्शनीय है वहीँ बिहारी के नीति, श्रृंगारी पदों के साथ आगे बढ़ते हैं तो रीतिमुक्त धारा में घनान्द के सात्विक प्रेम के पीर की अद्वितीय

व्यंजना स्पष्ट्तः 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 बसंपुर्ण 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, स्वच्छदंतावाद, 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 अविर्भाव् 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
    - उद्बोधन
    - सखी वे मुझसे कहक जाते

Unit III: 15 Contact Hours

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
    - मै 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: 6 Contact Hours

प्रगतिवादी एवं प्रयोगवादी काव्य परंपरा एवं प्रतिनिधि रचनाएँ

1. केदारनाथ अग्रवाल
   - कनबहरे
   - जो जीवन की धुल 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. डाॅ. ओमप्रकाष
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 करवाने में दक्षता प्राप्त कर चुके होते हैं।	PO1
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

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**										**3**			**2**
CO2		**3**											**3**	
CO3							**3**							
CO4														
1=lightly mapped					2= moderately mapped						3=strongly mapped			

SEED230A	Chinese II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure					
Co-requisites	--				

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.

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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

Course Content

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

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

	Programme and Course Mapping														
CO	**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				

SEED232A	MATHEMATICS II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basics of mathematics				
Co-requisites					

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

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 Pubications; 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

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

CO3	To understand the generalise the concept of trigonometric ratios to trigonometric functions	**PO3**
CO4	Learn important applications of sequences in several spheres of human activities	**PO5**
CO5	Learn elementary concepts of continuity, differentiability and relations between them	**PO8**

		Teaching Competencies	**Effective Communication**	**Critical Thinking**	**Ethics**	**Life-long Learning**	**Sensitive towards Inclusion**	**Self -Development and**	**S Technology Skills**	**Professional Competencies**	**General and Specific Need &**	**Pedagogical Content Analysis**	**Developmental tasks**	**Diverse Needs**	**Research and Entrepreneurial Skills**
Course Code	Course Title	PO1	PO 2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 232A	Mathematics-II	2		3		3			3		2				

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	**2**													
CO2										**2**				
CO3			**3**											
CO4					**3**									
CO5								**3**						

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

SEED234A	Physics II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Physics and its Principles				
Co-requisites	--				

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

9. https://swayam.gov.in
10. http://egyankosh.ac.in
11. 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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1			**3**										**2**	
CO2								**3**			**3**			**3**
CO3														
CO4									**3**					
CO5										**3**				
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED236A	Chemistry II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Chemistry & its Theories				
Co-requisites	--				

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.
- Expalin 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 & heleronulear diatomic ,
- Types of bond (Ionic covalent, Coordinate, metallic, Concept of Hybridization, Definition Types, Prediction of Hybridization ($BeCl_2$, CH_4, ClF_4, $POCl_3$, $NH4^+$, $H_3O^+CO_3^{-2}$, 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,
- Arhenius 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

12. https://swayam.gov.in
13. *https://chem.libretexts.org/Courses/University_of_California_Davis/UCD_Chem_8A_2019_-_Heather_D_Allen/Text*
14. http://egyankosh.ac.in
15. www.ignou.ac.in
16. *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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1			**3**										**2**	
CO2	**3**													**3**
CO3							**3**							
CO4									**3**					
CO5											**3**			
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED238A	BIOLOGY II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic concepts of plant and animal biology				
Co-requisites	--				

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

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, carbodydrates, 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
- 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.
- 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 Piess: Cambridge.
2. De Witt, William. Biology of the Cell - An Evolutionary Approach, W.B. Saunders Co: London, Keeton.
3. Dhami, 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
5.

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 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 238A	Biology-II	2		3								3	2		

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**											**2**		
CO2			**3**											
CO3			**3**											
CO4			**3**											
CO5											**3**			
1=lightly mapped			2= moderately mapped								3=strongly mapped			

SEED240A	HISTORY II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic Understanding of historical sources and the major empires that existed in the past.				
Co-requisites					

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 & conquets 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, Kamaragupta, 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

	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**
History II SEED240A	3		3						4		2		2	

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**										**2**	
CO2											**3**			**3**
CO3	**3**													
CO4									**3**					
CO5														
1=lightly mapped			2= moderately mapped								3=strongly mapped			

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

17. https://swayam.gov.in
18. http://www.ncte.nic.in
19. http://egyankosh.ac.in
20. 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

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1																3			
CO2							3				3			3					
CO3				3														2	
CO4		3							3										
CO5										3									

Unit I	**Concept and Growth of Nationalism in India**
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
Unit II	**Philosophical Premises and Making of the Indian Constitution**
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/4th IR	Employability, Entrepreneurship, Skill Development
Unit III	**System of Government**
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/4th IR	Employability, Entrepreneurship, Skill Development
Unit IV	**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/4th 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

21. https://swayam.gov.in
22. http://www.ncte.nic.in
23. http://egyankosh.ac.in
24. 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	Analyze the ocean's geomorphology, and understand the movement of ocean water through currents, tides, waves, marine deposits, and coral reefs.	**PO1**
CO2	Explore different approaches in environmental geography, and dynamic relationship between humans and the biosphere, including the impact on biogeochemical cycles.	**PO5**
CO3	Understand the concepts of climate and atmospheric processes, and various climate classification schemes.	**PO7**
CO4	Investigate the causes, consequences, and management of natural hazards and disasters in India, and explore environmental institutions and legislation in India	**PO9**
CO5	Investigate the causes, consequences, and management of natural hazards and disasters in India, and explore environmental institutions and legislation in 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	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
Geography II 244A	3		3		3		3		3				3	3

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

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**	**PSO 1**	**PSO 2**	**PSO 3**
CO 1	**3**												**3**	
CO 2					**3**									**3**
CO 3							**3**							
CO 4									**3**					
CO 5			**3**											
1=lightly mapped					2= moderately mapped							3=strongly mapped		

SEED246A	ECONOMICS II	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Growth and Development of Indian economy				
Co-requisites	--				

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

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

		Outcomes
CO1	Take decision of disaster management.	**PO5**
CO2	Educate remedial measures to society about post disaster effects.	**PO3**
CO3	Aware the community about disaster management.	**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	Classroom Management	Hands on Experience	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**	**PSO 1**	**PS O2**	**PS O3**
SEED542A	**Disaster Management**			**3**		**3**		**3**						**3**	

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

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**	**PSO 1**	**PSO 2**	**PSO 3**
CO 1					**5**									
CO 2			**3**										**3**	
CO 3							**3**							
1=lightly mapped			2= moderately mapped							3=strongly mapped				

SEMESTER V

SEED 377A	CHILDHOOD AND GROWING UP	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	**Childhood and Adolescence**				
Co-requisites	--				

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

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

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	**Childhood and Growing Up**			3		2		3			2	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										**2**				
CO4			**3**											
CO5						**2**								
1=lightly mapped			2= moderately mapped						3=strongly mapped					

SEED345A	LANGUAGE ACROSS THE CURRICULUM	L	T	P	C
Version2.0		2	0	0	2
Pre-requisites/Exposure	Language Skills				
Co-requisites	--				

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

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 this 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 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 345A	Language Across the Curriculum		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**	**PO12**	**PSO1**	**PSO2**	**PS03**	**PSO4**	**PSO5**	**PSO6**	**PSO7**
CO1	3											2							
CO2		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:** • **Dialect** • **Regional Varieties**
National	**Consequences of using Multilingualism as Resource** **Understanding Multilingualism in the Classroom: Challenges and Strategies.**
Global	**Standard Language** **Home Language and School Language**

Employability	**Classroom Discourse- Strategies for using oral language in the classroom**
Entrepreneurship	**Language in Contact- Diglossia, Code-switching and Code-mixing, Pidgins and Creoles.**
Skill Development	**Discussion as a Tool for Learning.** **The nature of Questioning in the Classroom — types of questions and teacher's role.**
Professional Ethics	**Understanding Multilingualism in the Classroom: Challenges and Strategies.**
Gender	
Human Values	**Language in Contact- Diglossia, Code-switching and Code-mixing, Pidgins and Creoles.**
Environment & Sustainability	**Language in Contact- Diglossia, Code-switching and Code-mixing, Pidgins and Creoles.**
Unit II	**Developing Language Skills Grammar in English**
Local	**Language Skills**
Regional	**Speech, Games and Contexts**
National	**Language Skills**
Global	**Language Skills** **Study Skills including using thesauruses, dictionary, encyclopedia etc**
Employability	**Formal and Informal Writing such as poetry, short story, letter, diary, notices, articles, reports, dialogue, speech, advertisement etc.**
Entrepreneurship	**Formal and Informal Writing such as poetry, short story, letter, diary, notices, articles, reports, dialogue, speech, advertisement etc.**
Skill Development	**Language Skills**
Professional Ethics	**Formal and Informal Writing such as poetry, short story, letter, diary, notices, articles, reports, dialogue, speech, advertisement etc.** **Reference Skills.**
Gender	
Human Values	▪ **Story- Telling** ▪ **Dialogues** ▪ **Situational conversations** ▪ **Role plays**
Environment & Sustainability	**Language Skills**

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/4th IR	**Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs** **Skill Development, Soft Skills and Employability**

SEED347A	TOTAL QUALITY IN MANAGEMENT IN EDUCATION	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Teacher and teacher education programmes				
Co-requisites	--				

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

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. Mukhopadhay, 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

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 quality improvement cycle and to select and use appropriate tools and techniques for controlling, improving and measuring quality.	PO4
CO2	Explain the concepts of total quality management and total quality education.	PO7
CO3	Evaluate the principles of quality management and to explain how these principles can be applied within quality management systems.	PO7
CO4	Critically appraise the organizational, communication and teamwork requirements for effective quality management.	PO3
CO5	Critically analyze the strategic issues in quality management, including current issues and developments, and to devise and evaluate quality implementation plans.	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	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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO 1	2		1		2		1	1	1		2		1		1		2		2
CO 2		1		2		2				2		1		2		1		2	
CO 3																			
CO 4																			
CO 5																			
CO 6																			

Unit I	**Concept of Quality and Quality Management**
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	
Unit II	**Total Quality Management**
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	
Unit III	**Assessment of Institutions**
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	**Participatory Management and Decision-Making Process**
Local	
Regional	
National	
Global	
Employability	leadership in TQM institutions

SEED349A	STORY TELLING AND CHILDREN'S LITERATURE	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Language Skills				
Co-requisites	--				

Entrepreneurship	team building process
Skill Development	participatory management
Professional Ethics	decision making: meaning, process and techniques
Gender	
Human Values	
Environment & Sustainability	

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 thestudent-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

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
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 (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)

Mapping between COs and POs		
	Course Outcomes (COs)	**Mapped Programme Outcomes**
CO1	Demonstrate the story telling activity by using the children's literature.	**PO10**
CO2	Pose for different expression on picture books, folk tales, and fiction and non-fiction literature.	**PO3**
CO3	Develop story folders consisting story cards with respect to age and interest.	**PO7**

		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 349A	Story Telling and Children's Literature			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**						**3**		**3**		
CO2			**3**										**3**	
CO3							**3**							
1=lightly mapped				2= moderately mapped								3=strongly mapped		

SEED351A	ACADEMIC ENRICHMENT ACTIVITIES	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Observation and Analytical Skills				
Co-requisites	--				

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

		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	PSO1	PSO2	PSO3
SEED351A	ACADEMIC ENRICHMENT ACTIVITIES			3		3							3	3	

1= lightly mapped 2= Moderately mapped 3=Strongly mapped

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					2		3		2	2		2		
CO3	2	2			2	2		3	2	2		3	2	2	2		3		
CO4																			

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	**Activity 3:** Preparation of creative teaching aids/models. **Activity 4:** 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	**Activity 5:** Innovative pedagogies in education. **Activity 6:** 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	**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.
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/4th IR	Skill Development and Employability

SEED353A	SCHOOL ENGAGEMENT I	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Observation and Analytical Skills				
Co-requisites	--				

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
CO1	Experiment different scholastic and non-scholastic activities in the school campus.	**PO3**
CO2	Associate themselves with school engagement activities.	**PO5**

		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	PSO1	PSO2	PSO3
SEED353A	SCHOOL ENGAGEMENT I			3		3							3	3	

1= lightly mapped 2= Moderately mapped 3=Strongly mapped

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1											3						3		
CO2							3							3					

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
Activity	**Activity 7**: Overall observation and commentary about the School
Local	**Activity 7**: Overall observation and commentary about the School
Regional	**Activity 7**: Overall observation and commentary about the School
National	**Activity 7**: Overall observation and commentary about the School
Global	**Activity 7**: Overall observation and commentary about the School
Employability	**Activity 7**: Overall observation and commentary about the School
Entrepreneurship	**Activity 7**: Overall observation and commentary about the School
Skill Development	**Activity 7**: Overall observation and commentary about the School

SEED355A	ENGLISH III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Expression of Thoughts				
Co-requisites	--				

***LIBERAL COURSE (OPTIONAL III)**

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

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

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 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
SEED355A	English III		3	3	3								2		

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

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

SEED357A	Hindi III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic Knowledge of Hindi Bhasha and Literature				
Co-requisites	--				

Course Objectives

इस पाठ्यक्रम का उद्द्येश्य 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 भारतेंदु 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।भारतेंदु युग के आरंभ के साथ हिंदी साहित्य की गद्य विधा में महत्वपूर्ण विकास दर्शनीय है। हिंदी गद्य साहित्य में भारतेंदु 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 : भारतेंदु हरिश्चन्द
- भोर का तारा (एकांकी) जगदीश चंद्र माथुर
- लक्ष्मी का स्वागत (एकांकी) उपेंद्र नाथ अश्क
- 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 पुन्नालाल 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
8. घीसा (रेखाचित्र) महादेवी वर्मा, राजकमल प्रकाशन, नई दिल्ली
9. क्या लिखूं ? पदुमलाल पुन्नालाल बक्शी, राजकमल प्रकाशन, नई दिल्ली
10. अंधेर नगरी : भारतेंदु हरिश्चन्द, राजकमल प्रकाशन, नई दिल्ली
11. भोर का तारा (एकांकी) जगदीश चंद्र माथुर, राजकमल प्रकाशन, नई दिल्ली
12. लक्ष्मी का स्वागत (एकांकी) उपेंद्र नाथ अश्क, 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		
	Course Outcomes (COs)	**Mapped Programme Outcomes**
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।	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	PO7

	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।	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 357A	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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1									**2**			**2**		**2**
CO2						**3**							**3**	
CO3							**2**							
CO4										**2**				
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED359A	Chinese-III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	--				
Co-requisites	--				

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 Content

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

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
CO3	Learn the basic conversation and texts.	PO2

		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 359A	Chinese-III		3	3	3		2							3	2

	Programme and Course Mapping														
CO	**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			

SEED361A	MATHEMATICS III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	--				
Co-requisites	--				

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 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

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

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

SEED363A	Physics III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding Physics and its concepts				
Co-requisites	--				

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

25. https://swayam.gov.in
26. http://www.ncte.nic.in
27. http://egyankosh.ac.in
28. 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	PO1

	thermodynamics.	

	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 III SEED363	3		3					2	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**	**PSO1**	**PSO2**	**PSO3**
CO1			**3**										**2**	
CO2								**2**						**3**
CO3										**2**				
CO4									**3**					
CO5	**3**													
1=lightly mapped						2= moderately mapped						3=strongly mapped		

SEED 365A	Chemistry III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Chemistry				
Co-requisites	--				

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. Benzolyation of one of the following compounds: amines (aniline, o-,m-,p-toluidines) and phenols (βnaphthol, resorcinol) by Schotten- Baumann reaction
3. Nitration of one the following compounds: nitrobenzene, chlorobenzene, bromobenzene.
4. Determination of Fe (II) using KMnO4 with Oxalic Acid as Primary Acid Standerd.
5. Determination of CU (II) using Na2 S2O3 with K2Cr2O7 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

29. https://swayam.gov.in
30. http://www.ncte.nic.in
31. http://egyankosh.ac.in
32. 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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1			**3**										**2**	
CO2	**3**													**3**
CO3							**3**							
CO4									**3**		**3**			
CO5														
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED367A	BIOLOGY III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	--				
Co-requisites	--				

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

Unit I: **10 Contact Hours**

Structure and Function

- Plants: Types of tissues (xylem, pholem, 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.

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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– Thalassemia; 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 bins,
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, 4th 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:

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

SEED369A	HISTORY III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of different empires that existed during the past.				
Co-requisites					

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 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

History III-SEED369A	3		3						3		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**	**PSO1**	**PSO2**	**PSO3**
CO1									**3**				**2**	
CO2	**3**													**3**
CO3			**3**											
CO4										**3**				
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED371A	Political Science III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic concepts and theories in political science and political thought				
Co-requisites	--				

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,
- Savarker 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

33. https://swayam.gov.in
34. http://www.ncte.nic.in
35. http://egyankosh.ac.in
36. 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	PO 10	PO 11	PSO 1	PSO 2	PSO3
Political Science III 371A	3		3	3	3		3					3	3	

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

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1											3					3			
CO2						3								3					
CO3									3									2	
CO4			3																
CO5										3									

Unit I	**Traditions of Ancient Indian Political Thought**
Local	
Regional	
National	Sources & Features of Ancient Indian Political Thought, Manu: Social Laws, Kautilya: Arthasastra, 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: Arthasastra
Environment & Sustainability	
SDG	
NEP 2020	
POE/4th IR	
Unit II	**Renaissance Thought**
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
Unit III	**Early Nationalism**
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
Unit IV	**Democratic Egalitarianism**
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/4th 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

37. https://swayam.gov.in
38. http://www.ncte.nic.in
39. http://egyankosh.ac.in
40. 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	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
Geography III 373A	3		3		3	3			3				3	3

SEED375A	ECONOMICS III	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Growth and Development of Indian economy				
Co-requisites	--				

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

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

Programme and Course Mapping														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**												**2**	
CO2						**3**								**3**
CO3			**3**											
CO4									**3**					
CO5					**5**									
1=lightly mapped					2= moderately mapped							3=strongly mapped		

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

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

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 judge the appropriateness of international trade policy options	**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 375A	Economics III			3	3			3	2		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**	**PSO1**	**PSO2**	**PSO3**
CO1							**3**						**2**	
CO2							**3**							**3**
CO3				**3**										
CO4			**3**											
1=lightly mapped				2= moderately mapped								3=strongly mapped		

Semester VI

SEED375A	Contemporary India and Education	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	History of India				
Co-requisites	--				

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

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 Act2009
- Decentralization of Education and Panchayati Raj (specifically though 7^{3rd} and 7^{4th}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 VermaCommission-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 Prakhashan.

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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1					**3**							**3**		**3**
CO2						**3**							**3**	
CO3							**3**							
CO4			**3**											
CO5			**3**											
CO6			**3**											
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED350A	Pedagogy of Environmental Studies	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basics of environmental sciences				
Co-requisites	--				

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

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 Coorporation.
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

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1																			2
CO2		2	3						3										
CO3				3														3	

Unit I	Concept of Environmental Studies (EVS)
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 leve
Gender	
Human Values	
Environment & Sustainability	
Unit II	**Basic Considerations in Developing Curriculum in EVS**
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	
Unit III	**Understanding the Method of Science**
Local	
Regional	
National	• Process approach in EVS; planning for and organisation

	of teaching-learning activities • Unit and lesson planning; role of inquiry, experiment, discussion, drama etc.
Global	
Employability	• Evaluation and testing.
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	
Unit IV	**Practicum**
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	
NEP 2020	
POE/4th IR	

SEED352A	PEDAGOGY OF LANGUAGE	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Aptitude of Teaching				
Co-requisites	--				

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

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED 352A	Pedagogy of Language	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	**3**													
CO4											**3**			
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED354A	PEDAGOGY OF MATHEMATICS	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Fundamentals of Mathematics				
Co-requisites	--				

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

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' investigationsand 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: Leaming 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

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.	**P01**
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**

		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 354A	**Pedagogy of Mathematics**	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		

SEED356A	Pedagogy of Natural Sciences	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Concepts of natural sciences				
Co-requisites	--				

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

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

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**
CO3	Apply various methods and techniques for teaching science in classroom settings.	**PO1**
CO4	Apply different assessment techniques as per the	**PO9**

	requirement in classrooms.	

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 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	

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		2				
CO3	3				2											3			2
CO4				3					3			2						3	

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	Give Heading of the Unit here (if applicable)
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	Give Heading of the Unit here (if applicable)
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	Give Heading of the Unit here (if applicable)
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/4th IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development, Soft Skills and Employability

SEED358A	PEDAGOGY OF SOCIAL SCIENCE	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Methods and skills in social sciences				
Co-requisites	--				

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

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

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 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 358A	Pedagogy of social science	3		3				3			2	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									**3**					
CO4								**3**						
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED360A	DEVELOPING INSTRUCTIONAL AIDS	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Use of Technology				
Co-requisites	--				

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

Suggested Activities

Activity 1: 02Contact 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**
CO1	Use the existing technologies in education and communicate effectively with teachers and others using it	**PO8**
CO2	Apply the application software such as excel, PowerPoint and word processing in the teaching.	**PO8**
CO3	Design and develop ICT integrated learning resources.	**PO8**
CO4	Develop cognizance of critical perspectives of ICT.	**PO3**
CO5	Use Technologies to support students' special learning needs.	**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
SEED360A	Developing Instructional Aids			3	3	3		3					3	3	

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	2							3	2				2						
CO2								3											2
CO3					3			3							2	3			
CO4			3									2							
CO5						3				3									

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	**Smart Boards:** Techniques and applications of Smart campus/ Smart School/ Smart Boards/ Smart Classroom
Employability	**Smart Boards:** 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	
Unit II	Activity 3rd & 4th
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 5th & 6th
Local	**Real Things and Mock Ups:** Real things: types–unmodified, modified (models and specimens), their characteristics, techniques of preparation and using. **Power point Presentation:** 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	**Power point Presentation:** 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 7th & 9th
Local	**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.
Regional	advantages and limitations in the use of computers in education, techniques of preparation and using.
National	**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.
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	
NEP 2020	
POE/4th IR	

SEED362A	SCHOOL ENGAGEMENT II	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Observation and Analytical Skills				
Co-requisites	--				

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

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
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 developmental activities in the school campus.	**PO3**
CO2	Associate themselves with school engagement activities.	**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	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													
CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PS03	PSO4	PSO5	PSO6	PSO7
CO1	3											2							
CO2		2		3										3					
					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/4th IR	Internship: Students will perform activities during internship in nearby govt and private schools affiliated to HBSE & CBSE

SEED364A	ENGLISH IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Expression of Thoughts				
Co-requisites	--				

***LIBERAL COURSE (OPTIONAL IV)**

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

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	Classify various literary features of Drama in a given literature.	**PO2**
CO2	Interpret various elements of drama literature with wide range of famous works.	**PO9**
CO3	Recognize and appreciate the Drama 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	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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1		3											3						
CO2									3						2				
CO3				3														3	

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	The Dramatic Monologue (Characteristics, structure and elements)
Entrepreneurship	The Dramatic Monologue (Characteristics, structure and elements)
Skill Development	Tragi-comedy Farce and Melodrama The Masque The One-Act Play
Professional Ethics	Tragi-comedy Farce and Melodrama The Masque The One-Act Play
Gender	
Human Values	Tragi-comedy Farce and Melodrama The Masque The One-Act Play
Environment & Sustainability	Tragi-comedy Farce and Melodrama The Masque The One-Act Play
Unit II	DRAMATIC DEVICES
Local	Dramatic Irony
Regional	Stage Directions Prologue Epilogue (Characteristics and Structure)
National	Dramatic Irony Soliloquy and Aside Expectation and Surprise Stage Directions
Global	Dramatic Irony

	Soliloquy and Aside Prologue Epilogue (Characteristics and Structure)
Employability	Dramatic Irony Soliloquy and Aside Expectation and Surprise Stage Directions
Entrepreneurship	Expectation and Surprise Stage Directions
Skill Development	Dramatic Irony Soliloquy and Aside
Professional Ethics	Dramatic Irony Soliloquy and Aside Prologue Epilogue (Characteristics and Structure)
Gender	
Human Values	Dramatic Irony Soliloquy and Aside Prologue Epilogue (Characteristics and Structure)
Environment & Sustainability	
Unit III	Give Heading of the Unit here (if applicable)
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	Developments and Movements (A Brief History)
Entrepreneurship	Origin of Indian and English Drama and Theatre
Skill Development	Developments and Movements (A Brief History)
Professional Ethics	Developments and Movements (A Brief History)
Gender	
Human Values	Developments and Movements (A Brief History)
Environment & Sustainability	Origin of Indian and English Drama and Theatre
Unit IV	Give Heading of the Unit here (if applicable)
Local	Girish Karnad: Nagmandala
Regional	Girish Karnad: Nagmandala

National	Girish Karnad: Nagmandala
Global	William Shakespeare: Hamlet
Employability	Girish Karnad: Nagmandala William Shakespeare: Hamlet
Entrepreneurship	Girish Karnad: Nagmandala William Shakespeare: Hamlet
Skill Development	Girish Karnad: Nagmandala William Shakespeare: Hamlet
Professional Ethics	Girish Karnad: Nagmandala William Shakespeare: Hamlet
Gender	Girish Karnad: Nagmandala William Shakespeare: Hamlet
Human Values	Girish Karnad: Nagmandala William Shakespeare: Hamlet
Environment & Sustainability	Girish Karnad: Nagmandala William Shakespeare: Hamlet
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/4th IR	**Cross cultural programmes Global Education Knowledge Updated Curriculum Consulting Field Projects Team Work Simulations Mentoring by Alumni**

SEED366A	**Hindi IV**	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic Knowledge of Hindi Bhasha and Literature				
Co-requisites	--				

Course Objectives

इस पाठ्यक्रम का उद्द्येश्य 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 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

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 कहें 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 महत्त्वपूर्ण संकेत किया था। स्त्री- विमर्श को प्रायः प्रतिशोध-पीड़ित 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 पूर्वाग्रहो' 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

Unit I: **17 Contact Hours**

विमर्शो की सैद्धांतिकी

- स्त्री विमर्श : अवधारणा और मुक्ति आंदोलन
- दलित विमर्श : अवधारणा और आंदोलन (फूले और अम्बेड़कर)

Unit II: **16 Contact Hours**

दलित विमर्श प्रतिनिधि रचनाएँ

- जूठन : (आत्मकथा) ओम प्रकाश वाल्मीकि
- तड़प मुक्ति की :(नाटक) माता प्रसाद

Unit III: **12 Contact Hours**

स्त्री विमर्श की प्रतिनिधि रचनाएँ

- कहानी : चर्चित दलित महिला कथाकारों की कहानियाँ : डॉ. कुसुम वियोगी

Unit IV: **12 Contact Hours**

हिंदी साहित्य में स्त्री और दलित विमर्श

- स्त्री और दलित विमर्श में हिंदी साहित्य की पत्रिकाओं का योगदान

- स्त्री और दलित विमर्श दशा और दिशा

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

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

SEED368A	CHINESE- IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basics of Mathematics				
Co-requisites	--				

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

Course Content

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

		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

CO	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			

SEED370A	MATHEMATICS IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basics of Mathematics				
Co-requisites	--				

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

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; 2nd 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; 35th 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

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**
CO1	Learn specific applications of integrals to find the area under simple curves	**PO1**
CO2	Learn how probability is used as a measure of uncertainty of events in a random experiment	**PO3**
CO3	Learn concepts of conditional probability, Bayes' theorem, random variable and its probability distribution	**PO5**
CO4	Learn correlation and regression analysis based on multivariate distribution	**PO7**
CO5	Learn to apply the systems of linear inequalities and equations to solve some real life problems	**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 370A	Mathematics IV	2		3		2		3			2				

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	**2**													
CO2			**3**											
CO3					**2**									
CO4							**3**							
CO5										**2**				
1=lightly mapped					2= moderately mapped							3=strongly mapped		

SEED372A	Physics IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Physics and it concepts				
Co-requisites	--				

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,
- Fraunhoffer 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, monochromacity,
- 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

41. https://swayam.gov.in
42. http://www.ncte.nic.in
43. http://egyankosh.ac.in
44. 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
Course Title & Code	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
Physics III SEED372A	2		3		3		2						3	2

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**												**3**	
CO2			**3**											**2**
CO3					**3**									
CO4							**3**							
CO5			**3**											
1=lightly mapped					2= moderately mapped							3=strongly mapped		

SEED374A	Chemistry IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic understanding of Chemistry and its Concepts				
Co-requisites	--				

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 & quaternery 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 XeF2 and XeF4, XeF6; Nature of bonding in noble gas compounds (Valence bond treatment and MO treatment for XeF2). Molecular shapes of noble gas compounds (VSEPR theory).

Practicum

1. Estimation of total hardness of water samples.
2. Estimation of Ca2+ 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

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http://www.ncte.nic.in
http://egyankosh.ac.in
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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1	**3**												**2**	
CO2			**3**											**3**
CO3							**3**							
CO4			**3**											
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED376A	Biology IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic concepts of plant and animal biology				
Co-requisites	--				

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

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.

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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.

Unit IV: 14 Contact Hours

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, 4th 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

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		

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	PSO 2	PSO 3	PSO 4	PSO 5	PSO 6	PSO 7
CO1	2													2					
CO2		2	1											2					
CO3		2																	
CO4	2													2				2	
1=lightly mapped				2= moderately mapped						3=strongly mapped									

Unit I	**Environmental Science**
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	**Biology and Human Welfare**
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
Unit III	**Biotechnology and Its Applications**
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
Unit IV	**Ecology and Environment**
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/4th IR	Internship Skill development

SEED378A	HISTORY IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	To understand and analyze the deferent reforms, revolutions that has shaped the modern world.				
Co-requisites					

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
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 impact of the Renaissance on society and culture.	PO7
CO2	Comprehend the key events and consequences of Napoleon's rule.	PO3
CO3	Understand the factors that contributed to the outbreak of World War I.	PO1
CO4	Analyze the factors that led to the rise of totalitarian regimes and the emergence of Japan as a world power.	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**
History IV SEED378A	3		2				1				4	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**	**PSO1**	**PSO2**	**PSO3**
CO1							**3**						**2**	
CO2			**3**											**3**
CO3	**3**													
CO4											**3**			
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED380A	Political Science IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basic knowledge of political science and international relations				
Co-requisites	--				

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

45. https://swayam.gov.in
46. http://www.ncte.nic.in
47. http://egyankosh.ac.in
48. 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	Analyze and compare different theories and approaches in international politics.	PO1
CO2	Evaluate the determinants and instruments of foreign policy.	PO6
CO3	Examine the role of international law and global organizations in international politics.	PO7
CO4	Compare and analyze the political systems of selected countries.	PO5
CO5	Develop critical thinking and problem-solving skills in the context of international politics.	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 IV 380A	2		3	3	3	3	2					3	3	

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

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1																3			
CO2							3				3			3					
CO3				3														2	
CO4		3							3										
CO5										3									

Unit I	**International Politics**
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
Unit II	**Foreign Policy**
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/4th IR	Employability, Entrepreneurship, Skill Development
Unit III	**International Law & Global Organizations**
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/4th IR	Employability, Entrepreneurship, Skill Development
Unit IV	**Comparative Government and Politics**
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/4th 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. (19820. 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.

- Tikkha, 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.
- Korte, G., & Huisman, O. (2017). Understanding GIS: An ArcGIS Pro Project Workbook (4th ed.). Esri Press.
- Longley, P. A., Goodchild, M. F., Maguire, D. J., & Rhind, D. W. (2015). Geographic Information Science & Systems (4th ed.). Wiley.
- Taylor, P. J., & Hoyler, M. (Eds.). (2011). Global Transport Networks: The Geography of Connectivity and Spatial Systems. Wiley-Blackwell.
- Wood, P. (2018). Transport Geography (3rd ed.). Routledge.

Online References

49. https://swayam.gov.in
50. http://www.ncte.nic.in
51. http://egyankosh.ac.in
52. 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 significance of transport, communication, and trade in the context of geography.	PO1
CO2	Analyze human settlements globally and in India and functional classification of urban settlements. Explore the challenges of urbanization,	PO6
CO3	Gain a geographical perspective on selected issues and problems, including environmental pollution, global warming, poverty, food security, and	PO7

	sustainable development.	
CO4	Develop practical skills in data processing, thematic mapping, and representing statistical data using diagrams.	**PO8**
CO5	Apply spatial analysis techniques, including overlay, buffer, and proximity analysis, to analyze geographic data and solve real-world problems.	**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**
Geography IV 382A	3		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**												**3**	
CO2						**3**								**3**
CO3							**3**							
CO4								**3**						
CO5			**3**											
1=lightly mapped				2= moderately mapped							3=strongly mapped			

SEED384A	ECONOMICS IV	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Indian Economy and Employment policy				
Co-requisites	--				

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

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

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**
CO3	To develop a perspective on the different problems and approaches to economic planning and development in India	**PO10**
CO4	Describe the agriculture system in India and give better suggestion to improve further.	**PO7**

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 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	

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										**2**				
CO4							**3**							
1=lightly mapped			2= moderately mapped							3=strongly mapped				

SEMESTER VII

SEED477A	RESEARCH PROJECT I (CASE STUDY)	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Research And Methodology				
Co-requisites	--				

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

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	• Theoretical and research status • Methodology
2	Data collection	• Authenticity • Richness and detail in records

3	Analysis and Interpretation	• Framework used • Link with theory • Presentation • Comprehensiveness • Use of Examples from raw-data
4	Implications	• Inferences • How do the research findings inform practice?

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.	
CO3	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	**PO3**
CO4	Explore educational research problems and prepare and present a research proposal	**PO3**
CO5	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	**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
SEED477A	Research Project I (Case Study)			3	3								3	3	

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

CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**	**PSO4**	**PSO5**	**PSO6**	**PSO7**

CO1																			
CO2																			
CO3																			
CO4																			
CO5																			
CO6																			

Unit I	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.
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/4th IR	Updated Curriculum and Practical Courses from Industry and Technical Skills that match Industry Needs Skill Development and Employability

SEED479A	SCHOOL INTERNSHIP	L	T	P	C
Version 2.0		0	0	0	17
Pre-requisites/Exposure	Field Exposure				
Co-requisites	--				

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 thier 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

.No	Components	Marks
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
Total		**200**

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 observational skills and managerial skills	**PO7**

	required in schools	
CO2	Understand pedagogical skills and to apply these skills in real teaching situations.	**PO6**
CO3	Develop a comprehensive and critical understanding of diversities, disabilities, marginalization and thier inclusion in education.	**PO3**
CO4	Implicit and explicit structures in our schools that act as a hindrance in including all students.	**PO10**
CO5	Understanding of steps and standards of developing e-content	**PO7**

Programme and Course Mapping

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 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	

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	3				3	2			3		1		4		2		2		2
CO2		1					1					2				2			
CO3				3						2				3				3	
CO4																			
CO5																			
CO6																			

SEMESTER VIII

SEED486A	GENDER AND SCHOOLING	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Gender Roles in society				
Co-requisites	--				

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 stractures 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 respective 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

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.
3. Kirk Jackie (Ed) (2008). Women Teaching in South Asia, SAGE, NewDelhi

Online References:

1. https://swayam.gov.in
2. http://www.ncte.nic.in
3. http://egyankosh.ac.in
4. 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 respective 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														
CO	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PSO1**	**PSO2**	**PSO3**
CO1											**3**			
CO2										**2**			**3**	
CO3							**3**							
CO4			**3**											
CO5					**2**									
1=lightly mapped			2= moderately mapped							3=strongly mapped				

SEED488A	INCLUSIVE EDUCATION	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Understanding of Diverse Needs				
Co-requisites	--				

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

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)

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

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	Analyse the paradigm shift of Inclusive education in terms of policies, facilities and provisions.	**PO3**
CO2	Summarise diverse needs of children at Physical, Psychological and Social-Cultural phases.	**PO10**
CO3	Face inclusive classrooms by using inclusive teaching strategies	**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
SEED488A	Inclusive Education			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**										**3**	
CO2										**3**				
CO3						**3**								
1=lightly mapped			2= moderately mapped							3=strongly mapped				

SEED490A	Environmental Education	L	T	P	C
Version 2.0		4	0	0	4
Pre-requisites/Exposure	Basics of environmental sciences				
Co-requisites	--				

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

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

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

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 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
SEED490A	Environmental Education	3		3	3			3				2	2		3

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO1	3												2						
CO2				3													3		
CO3			3												3				
CO4							3											3	

Unit I	**Nature and Scope of Environmental Education**

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	India as a mega biodiversity Nation, Different ecosystems at national and global level
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
Unit II	**Community Participation and Environment**
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
Unit III	**Environmental Issues and Concerns**
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	Economic growth and sustainable consumption
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
Unit IV	**Initiatives by various Agencies for Environment Education**
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	Sustainable use of forest produce
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/4th IR	**Simulation and Technical Skills that match Industry Needs**

SEED492A	RESEARCH PROJECT II (EDUCATIONAL ISSUE)	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Research And Methodology				
Co-requisites	--				

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

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	• Theoretical and research status • Methodology
2	Data collection	• Authenticity • Richness and detail in records
3	Analysis and Interpretation	• Framework used • Link with theory • Presentation • Comprehensiveness • Use of Examples from raw-data

4	Implications	• Inferences • How do the research findings inform Practice?

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 gathering data.	**PO3**

CO3	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	**PO3**
CO4	Explore educational research problems and prepare and present a research proposal	**PO3**
CO5	Analyze qualitative and quantitative data, and explain how evidence gathered supports or refutes an initial hypothesis.	**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
SEED492A	Research Project II(Educational Issues)			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**	**3**		
CO2							**3**						**3**	
CO3					**3**									
1=lightly mapped					2= moderately mapped							3=strongly mapped		

SEED494A	RESOURCE CENTER DEVELOPMENT	L	T	P	C
Version 2.0		0	0	4	2
Pre-requisites/Exposure	Designing Learning Material				
Co-requisites	--				

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	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO1	PSO2	PSO3
SEED494A	Resource Center Development					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**	**3**		
CO2							**3**						**3**	
CO3					**3**									
1=lightly mapped					2= moderately mapped							3=strongly mapped		

SEED496A	UNDERSTANDING ICT AND ITS APPLICATION	L	T	P	C
Version 2.0		0	0	4	2
Prerequisites/Exposure	Basic knowledge of technology				
Co-requisites	--				

Couse 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

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

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, www.wordpress.com or 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://webserver.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).

13. NCERT (2013). National Repository of Open Educational resources (NROER), CIET-NCERT, NCERT, New Delhi (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:

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	Create technology integrated resources for flipped classroom.	PO10
CO2	Demonstrate different ICT Tools for creating and facilitating learning.	PO1
CO3	Conduct the blended teaching for ICT enabled learning	PO8

	experience.	

		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 Ehics and Entrepreneurial Skills:
Course Code	Course Title	PO1	PO2	PO 3	PO 4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PSO 1	PSO 2	PSO 3
SEED496A	Understanding ICT and its Application	3							3		3			3	

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

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**	**PSO 1**	**PSO 2**	**PSO 3**
CO 1										**3**			**3**	
CO 2	**3**													**3**
CO 3								**3**						
1=lightly mapped 2= moderately mapped 3=strongly mapped														

SEED544A	GANDHIAN PHILOSOPHY: THEORY AND PRACTICES	L	T	P	C
Version 2.0		2	0	0	0
Pre-requisites/Exposure	Gandhian Values				
Co-requisites	--				

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 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

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
    b. 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
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)

Mapping between COs and POs		
	Course Outcomes (COs)	**Mapped Programme Outcomes**
CO1	Understand the concept of peace from the perspective of various religions.	**PO4**
CO2	Appreciate the contribution of the Gandhi's in society and its impact on peer group.	**PO7**
CO3	Provide the student to a holistic idea about methods of conflict resolution and hence makes them learn the various means of handling conflict.	**PO9/PO10**
CO4	Critically examine the Gandhi's Philosophy in learning as divergent process.	**PO6**
CO5	Understand the contribution and importance of different movements initiated by M.K Gandhi.	**PO7**

		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	**Gandhian Philosophy: Theory and Practices**			2	3	2		3			2	3		3	

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

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3	PSO4	PSO5	PSO6	PSO7
CO 1	1		2	2	2		2	1		1	2		2		1		1	2	
CO 2		2				1			2			2		1		2			1

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	
Entrepreneurship	
Skill Development	Empowerment of Women
Professional Ethics	
Gender	
Human Values	Untouchability and the method of struggle against it - Harijan welfare
Environment & Sustainability	Communal harmony–National Unity, ideals of casteless and classless society

8. ANNEXURE

Course Structure for B.El.Ed.							
Odd Semester				**Even Semester**			
S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
1	SEED101A	Basic Concepts and Thoughts in Education	4	1	SEED102A	Child Development	4
2	SEED103A	Nature of Language I	4	2	SEED104A	Nature of Language II	4
3	SEED105A	Core Mathematics I	4	3	SEED106A	Core Mathematics II	4
4	SEED107A	Core Natural Sciences I	4	4	SEED108A	Core Natural Sciences II	4
5	SEED109A	Core Social Sciences I	4	5	SEED110A	Core Social Sciences II	4
6	Open Elective		4	6	SEED112A	School Exposure II	2
7	SEED111A	School Exposure I	2				
		Total	**26**			**Total**	**22**
S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
1	SEED213A	Cognition and Learning	4	1	SEED214A	Communication in Teaching-Learning Process	4
2	SEED215A	Language Acquisition	4	2	SEED216A	Logico-Mathematics Education	4
3	SEED217A	Observing Children	2	3	SEED218A	Arts in Education	2

4	SEED219A	Self-Development Workshop	2	4	SEED220A	Yoga Education	2
5	SEED221A	Service Learning	2	5	SEED222A	Understanding the Self	2
***Liberal Course (Optional I)**				6	SEED224A	School Attachment Programme and Community Living	2
6	SEED223A	English I	4	***Liberal Course (Optional II)**			
	SEED225A	Hindi I		7	SEED226A	English II	4
	SEED227A	Chinese I			SEED228A	Hindi II	
	SEED229A	Mathematics I			SEED230A	Chinese II	
	SEED231A	Physics I			SEED232A	Mathematics II	
	SEED233A	Chemistry I			SEED234A	Physics II	
	SEED235A	Biology I			SEED236A	Chemistry II	
	SEED237A	History I			SEED238A	Biology II	
	SEED239A	Political Science I			SEED240A	History II	
	SEED241A	Geography I			SEED242A	Political Science II	
	SEED243A	Economics I			SEED244A	Geography II	
					SEED246A	Economics II	
				8	SEED542A	Disaster Management	4
		Total	18			**Total**	**24**

S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
1	SEED377A	Childhood and Growing Up	4	1	SEED348A	Contemporary India and Education	4

2	SEED345A	Language Across the Curriculum	4	2	SEED350A	Pedagogy of Environmental Studies	4
3	SEED347A	Total Quality Management in Education	4	**Optional Course -Student will opt any one of Pedagogy subject**			
4	SEED349A	Story Telling and Children's Literature	2				
5	SEED351A	Academic Enrichment Activities	2				
6	SEED353A	School Engagement I	2	3	SEED352A	Pedagogy of Language	4
***Liberal Course (Optional III)**					SEED354A	Pedagogy of Mathematics	
7	SEED355A	English III	4		SEED356A	Pedagogy of Natural Science	
	SEED357A	Hindi III			SEED358A	Pedagogy of Social Science	
	SEED359A	Chinese III		4	SEED360A	Developing Instructional Aids	2
	SEED361A	Mathematics III		5	SEED362A	School Engagement II	2
	SEED363A	Physics III		***Liberal Course (Optional IV)**			
	SEED365A	Chemistry III		6	SEED364A	English IV	4
	SEED367A	Biology III			SEED366A	Hindi IV	
	SEED369A	History III			SEED368A	Chinese IV	

	SEED371A	Political Science III			SEED370A	Mathematics IV	
	SEED373A	Geography III			SEED372A	Physics IV	
	SEED375A	Economics III			SEED374A	Chemistry IV	
					SEED376A	Biology IV	
					SEED378A	History IV	
					SEED380A	Political Science IV	
					SEED382A	Geography IV	
					SEED384A	Economics IV	
		Total	**22**			**Total**	**20**
S.No.	**Course Code**	**Course Title**	**Credits**	**S.No.**	**Course Code**	**Course Title**	**Credits**
1	SEED477A	Research Project I (Case Study)	2	1	SEED486A	Gender and Schooling	4
2	SEED479A	School Internship	17	2	SEED488A	Inclusive Education	4
				3	SEED490A	Environmental Education	4
				4	SEED492A	Research Project II (Educational Issue)	2
				5	SEED494A	Resource Center Development	2
				6	SEED496A	Understanding ICT and Its Application	2