Central University of Rajasthan
School of Education

COURSE STRUCTURE AND SYLLABUS
Ph.D Pre-Course Work

School of Education

The School of Education was established in the year 2014. The vision of the school is to prepare individuals who will bring change through teaching, leadership, research and services in their professions and communities. The mission of the school is to develop professionally equipped and humane teachers and quality practitioners in the field of Yogic Sciences.

The School of Education has two departments:

- ➢ Department of Education and
- ➢ Department of Yoga

DEPARTMENT OF EDUCATION

Department of Education offers three programmes:

- ➢ Integrated M.Sc.B.Ed in four disciplines (Physics, Chemistry, Mathematics & Economics)
- ➢ Masters of Arts in Education (M.A Education)
- ➢ PhD in Education

Priority Areas of Research

The department has faculty members having expertise in varied areas. Some of the areas are list as under.

Educational Administration and Management
Women and Gender   studies
Pedagogical Sciences
Displacement discourse
Tribal Discourse
Educational Psychology
ICT and Education
Pedagogical Sciences
Teacher Education
Pedagogy of Science, social science, mathematics, physics, chemistry, commerce, life sciences
Sociology of Education
Entrepreneurship in Education
Educational Technology
Inclusive Education, special education
Leadership in Education
Women Leadership
Early Childhood Education
Life Skills Education
Any Emerging Issues in Education
Recent Trends in Education & Pedagogy

ADMISSION PROCEDURE

The admission to this programme shall be through Central universities entrance test (CUET) to be conducted on all-India basis

ELIGIBILITY FOR ADMISSION

55 % MARKS (50 % for SC/ST/OBC/PWD/EWS Candidates) in the Masters of Arts (Education) or Masters of Education (M.Ed) of M.Ed (Special Education)

PROGRAMME OUTCOMES:

1. To make students aware of various issues, challenges and prospects in education
2. To make students identify the emerging research areas and trends
3. To acquaint the students to select the appropriate research methodology
4. To sensitize the students with publication ethics and research ethics
5. To develop an in-depth insight into the area of their research
6. To acquaint the students with skills of research writing and publication

COURSE STRUCTURE

Sr No	Course	Course Name	Course Code	Credits
1	Core	Research Methodology in Education	EDU 701	4
2	Core	Research and Publication Ethics	EDU 702	2
3	Core	Pedagogy of Higher Education	EDU 705	3
		Practice Based Teaching Skills (**non graded**)	XXX	3
	ELECTIVE	**ANY TWO OF THE FOLLOWING SPECIALISATION**		
1		Innovative Reflections on Various Pedagogical Aspects	EDU 781	4
2		Educational Management, Planning and Leadership	EDU 782	4
3		Cognitive Learning	EDU 783	4
4		Trends in Entrepreneurship Education	EDU 784	4
5		Inclusive Education	EDU 785	4
6		Curriculum Development	EDU 786	4
7		Gender in Education	EDU 787	4
8		Educational Technology And ICT	EDU 788	4
		Total Credit		**17**

COURSE CODE:	EDU 701
COURSE TITLE:	**Research Methodology in Education**

Teaching Scheme	Examination Scheme	Credits Allotted
Theory: : 3 hours/week	ESE: 100 Marks	Theory: 03
Tutorial: 1 hour/week		Tutorial:01
		Total: 04

Pre-requisites:
The pre-requisite for this course is a master's degree in social sciences discipline.

Learning Outcomes

After completion of this course, the learners will be able to;

1. Understand the basic concepts and acquire the skills necessary for conducting quality research in education and its methodologies.
2. Decide research philosophies as per nature of their research work.
3. Formulate research proposal according to various research methodology.
4. Develop various type of tools/instruments used to collect data.
5. Analyze and interpret qualitative data.
6. Analyze and interpret quantitative data.
7. Identify the strength and limitations of various educational research designs
8. Evaluate a research report.

Course Outcomes

The instructor would fulfil the following objectives
1. To develop an understanding of the basics of educational Research.
2. To make them understand research paradigm and philosophies and its relation with other domains.
3. To develop an understanding of the basics of educational Research.
4. To train to collect data from both the sources.
5. To acquaint them with the procedure of standardization of research tools.
6. To develop a conceptual understanding of research methods i.e., qualitative and quantitative.
7. To practised data analysis with both types of data i.e., qualitative and quantitative

	Course Content	Hours Required
UNIT I	**Over view of Research and Educational Research**	10 Hours
	i) The Nature of Research; Nature of Knowledge and Scientific Inquiry ii) Inter disciplinarily in Educational Research, iii) Generalisation in Educational research iv) Role of Assumptions, Paradigms and Approaches in Research	
UNIT II	**Understanding Research Philosophies and Paradigms**	10 Hours
	1. Research paradigms: Ontology, Epistemology, Methodology and Axiology 2. Research Philosophies: Positivism, Interpretivism, Critical Realism, Empiricism, Symbolic interactionism, Pragmatism	

UNIT III	Methodologies for Educational Research	10 Hours
	1. Naturalistic and Ethnographic research 2. Historical and documentary research 3. Survey: Longitudinal and cross-sectional and Trend studies 4. Case Studies 5. Experiments Studies 6. Biographical and Phenomenology 7. Grounded theory	
UNIT IV	Method of Data Collection	10 Hours
	1. Questionnaire, Interview, Observation, Focus group discussion, Field Notes 2. Tests & Inventories 3. Using Secondary Data in Educational Research 4. Personal construct	
UNIT V	Qualitative Analysis and Interpretation	10 Hours
	1. Approaches to qualitative data analysis 2. Organizing and presenting qualitative data 3. Coding and Content Analysis 4. Discourses: Conversation, narrative and autobiographies as texts 5. Meta-analysis, systematic reviews and research syntheses	
UNIT VI	Quantitative Analysis and Interpretation	10 Hours
	1. Approaches to quantitative data analysis 2. Statistical Significance, effect size and statistical power 3. Descriptive statistics 4. Inferential Statistics	
Assessment		
ESE**	Written Examination of Complete Course - 100 Marks	

Mode of transaction

Lecture-cum-discussions, Tutorials, and Workshop Sessions

ASSIGNMENTS

- Preparing a research proposal
- Conduct a review of related literature
- Construct and adaptation a tool and fellow the procedure of standardization
- Write a research article
- Use the various anti-plagiarism tools

Books for Reference

- Best, J.W.& Khan, J.V. (2010). Research in Education(Tenth Education). New Delhi, India: Prentice Hall of India.
- Nicholas, Walliaman. (2011).RESEARCH METHODS: THE BASICS. Routledge, Taylor and Francis
- Cohen, Louis ., Mauion, Lawrence & Morrison, Keith. (2017). Research Methods in Education (Eight editions). Routledge.
- Edwards, A. L. (1957). Techniques of Attitude Scale Construction. New York: Appleton-

Century- Crafts

➢ Garrett, H. E.(1981). Statistics in Psychology and Education. New Delhi: Paragon International Publishers

➢ Gay, L. R., Airasian, P. (2003). Educational Research: Competencies for Analysis and Applications (seventh edition). Upper Saddlw River. NJ: Pearson Education

➢ Hinton, Perry R. (2014). Statistics Explained (Third edition). Routledge

➢ Kothari, C. R.(2004).Research Methodology: Methods and Techniques. New Delhi, New Age International(P) Limited,

➢ Mangal, S.K (2019). Statistics in Psychology and Education (Second University). New Delhi: P.H. Learning Private Limited

Web Links and Web source (Articles/Reading materials)

https://www.ox.ac.uk/students/academic/guidance/skills/plagiarism?wssl= 2.
https://student.unsw.edu.au/path-avoiding-plagiarising 3.
http://isites.harvard.edu/icb/icb.do?keyword=k70847&pageid=icb.page355322 4.
https://studentaffairs.duke.edu/conduct/z-policies/academic-dishonest
ALWD Guide to Legal Citation. http://www.alwd.org/publications/citation-manual/ 2. APA Style.
http://www.apastyle.org/ 3. Blue Book: A Uniform System of Citation. https://www.legalbluebook.com/ 4.
Chicago Manual of Style. http://www.chicagomanualofstyle.org/16/contents.html 5. MLA Style Manual.
https://www.mla.org/MLA-Style 6. OSCOLA https://www.law.ox.ac.uk/research-subject-groups/publications/oscola

COURSE CODE:	EDU 781	
COURSE TITLE:	Innovative Reflections on Various Pedagogical Aspects	

Teaching Scheme	Examination Scheme	Credits Allotted
Theory: : 3 hours/week	ESE: 100 Marks	Theory: 03
Tutorial: 1 hour/week		Tutorial:01
		Total: 04

Prerequisite

Any research scholar who is enrolled in the Ph.D. Education Program can study this Course. The scholar must have some familiarity with general pedagogical operations. The research scholars must have the general understanding about the concept of teacher education and various pedagogical approaches.

Learning Outcomes

The research scholars will envisage to:
1. Explain the challenges, issues and aspects of teaching and learning through innovative research.
2. Critically analyze through research on the problems & challenges of learners and teachers.
3. Reflect innovative ideas through research on quality of teaching-learning practices in India.
4. Analysis, and implement in a better way what they have learned from the course and how they hope to apply it in their future classroom.
5. Exhibit certain professional skills useful for research on professional development of teachers.
6. Do independent research by preparing tools and adopting techniques for data collection on innovative pedagogical aspects

Course Outcomes

The research scholars will envisage to:
1. Explain the concepts of teaching, and learning.
2. Critically analyze the problems & challenges of learner and teachers.
3. Reflect on quality of teaching-learning practices in India.
4. Analysis, and implement in a better way what they have learned from the course and how they hope to apply it in their future classroom.
5. Exhibit certain professional skills useful for professional development of teachers.
6. Do independent research by preparing tools and adopting techniques for data collection on innovative pedagogical aspects.

	Course Content	Hours Required
UNIT I	**Pedagogy: Meaning, nature and concept**	10 hours
	Meaning, Nature, and Origin of the concept of Pedagogy. Scope of Pedagogy at different level of education (Pre-Primary, Primary, Secondary, Senior Secondary, Higher Education).	
UNIT II	**Pedagogical Analysis and its operations**	10 hours
	Meaning of Pedagogical Analysis, Various Operations of Pedagogical analysis; Content Analysis, Formulations of learning objectives (General objectives, Specific objectives	

	and Instructional Objectives), Teaching- Learning Experiences (planning and selection of teaching strategies, teaching methods, teaching-learning material, and teaching aids), Assessment and Evaluation.	
UNIT III	**Aspects of Pedagogy: Related to Learners**	10 hours
	Learners and various characteristics of Learners; psychological (Personality, intelligence, learning capacity, motivation, attitude, aptitude, interest, level of aspiration, mental health, life skills etc.). Influence of Home and Family Environment, and society on learners development. Psycho-somatic disorders in students and its measures. Review and reflections on the researches on all learners related aspects and thrust areas for future researches.	
UNIT III	**Aspects of Pedagogy: Related to Teachers**	10 hours
	Teachers and Teacher Educators. Philosophical, Psychological and Sociological basis of Teaching, Professional ethics and socialization of teachers. Characteristics of teachers (Satisfaction, level of aspiration, motivation, and professional growth etc.), Teacher's accountability, obligations towards students, parents, organization, community and nation. Psycho-somatic issues of teachers, and its measures. Review and reflections on the researches on all teachers related aspects and thrust areas for future researches.	
UNIT IV	**Aspects of Pedagogy: Modern Pedagogical Approaches**	10 hours
	Types and Need of various modern pedagogical approaches, Information and Communication Technology in Teacher Education. Reflections on Computer supported collaborative Learning (CSCL) - Technology Enhanced Learning (TEL), M-Learning, Blended learning. Effective Management Techniques. Inclusive pedagogy and its challenges for revamping Teacher Education. Review and reflections on the researches related with various approaches and thrust areas for future researches.	
UNIT V	**Quality Assurance of Education**	10 hours
	Quality Assurance and Accreditation in Education Institutions. Reflections on the Issues related to Globalization and Privatization of Education, Issues, problems and remedial measures of Quality Education in India. Review and reflections on the researches related with various quality related aspects and thrust areas for future researches.	
UNIT VI	**Assessment Practices**	10 hours
	Meaning, Nature and Forms of Assessment, Aspects of Holistic Assessment; Cognitive and Non cognitive. Effective Innovative Assessment Processes, Accountability, Skills and Behavior. Current practices of assessment and evaluation. Review and reflections on the researches related with assessment related aspects and thrust areas for future researches.	
Assessment		
ESE**	Written Examination of Complete Course - 100 Marks	

Mode of transaction
Lecture-cum-discussions, Tutorials, and Workshop Sessions

ASSIGNMENTS

- Reflections on various issues related to pedagogical aspects.
- Preparation of research proposals on the issues on various issues of teaching-learning.
- Review of earlier research studies in the area of pedagogical aspects.

Presentations by the scholars on recent research in the area of pedagogical aspects

SUGGESTED READINGS:

Books:

- Anderson, L.W. (Ed.), Krathwohl, D.R. (Ed.), Airasian, P.W., Cruikshank, K.A., Mayer, R.E., Pintrich, P.R., Raths, J., & Wittrock, M.C. (2001). A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives. White Plains, NY: Longman.
- Batis, A. and Pook, G (2003). Effective Teaching with Technology in Higher Education. San Francisco: Jossey – Bass/ John Wiley.
- Beck, C. & Clark K. (2006).Innovations in Teacher Education: A Social Constructivist Approach. Ney York: State University of York.
- Guskey, T.R., & Bailey, J.M. (2001).Developing grading and reporting systems for student learning. Thousand Oaks, CA. Corwin.
- Mangal S.K. & Mangal Shubhra (2019). Assessment for Learning, PHI Learning Pvt. Ltd., New Delhi.
- Jangira. NK &Ajit Singh (1982).Core Teaching Skills, The Micro-teaching Approach, New Delhi: NCERT.
- John W. Best & James V. Kahn (2007). Research in Education. New Delhi: Prentice Hall of India Private Limited.
- Judith Bennett (2003) Teaching and Learning Science: A guide to recent research andits applications, Continuum, London.
- Herne S., Jessel J. & Griffith, J. (2000). Study to Teach: A Guide to Studying in Teacher Education. London and New: York. Rout ledge Falmer.
- Kochhar, SK (2003).Methods and Techniques of Teaching. New Delhi: Publishers Pvt.Ltd.
- Loughran, J. (2006). Developing a Pedagogy of Teacher Education: Understanding Teaching and Learning about Teaching. New York: Routledge:
- Mohammad Miyan (2004). Professionalization of Teacher Education. Mittal Publication. New Delhi.
- NCFTE-2009-NCTE Publication, New Delhi.
- NEP-2020, Ministry of Human Resource Development, Government of India
- Yadav, M.S. & Lakshmi, T.K.S. (2003). Conceptual Inputs for Secondary Teacher Education: The Instructional Role. India: NCTE.

Web Links:

- https://jonasmuthoni.com/blog/role-of-ict-education/
- https://tyonote.com/quality_management_issues_and_challenges/
- https://www.researchgate.net/publication/345224426_Theories_of_Pedagogy
- https://www.researchgate.net/post/Why-is-Heutagogy-considered-a-theory-of-learning

Journal Articles/ Papers:

- Carr, A., Balasubramanian, K., Atieno, R., & Onyango, J. (2018). Lifelong learning to empowerment: Beyond formal education. Distance Education 39(1), 69-86. doi: https://doi.org/10.1080/01587919.2017.1419819
- Chacko, T. V. (2018). Emerging pedagogies for effective adult learning: From andragogy to heutagogy. Archives of Medicine and Health Sciences, 6(2), 278.
- Cobern, W.W., Schuster, D., Adams, B., Skjold, B.A.,Muğaloğlu, E. Z.,Bentz, A.&Sparks, A.(2014).Pedagogy of Science Teaching Tests: Formative assessments of science teaching orientations,International Journal of Science Education,36:13,2265-2288,DOI: 10.1080/09500693.2014.918672
- Darling-Hammond, L. (2006). Constructing 21st-century teacher education. Journal of teacher

education, 57(3), 300-314.

- Elliott, J. (Ed.). (2011). Reconstructing teacher education (Vol. 221). Routledge.
- Gupta, A. & Sharma, S. (2016). The Role of ICT In Teacher Education.BBSSES, 7(10), ISSN 2321 – 9726(online).
- Hodgkinson, H. (2002). Demographics and teacher education: An overview. Journal of teacher education, 53(2), 102-105.
- Loewenberg Ball, D., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. Journal of teacher education, 60(5), 497-511.
- Munck, M. (2007). Science Pedagogy, Teacher Attitudes, & Student Success. Journal of Elementary Science Education, Department of Curriculum & Instruction, College of Education, Western Illinois University,19(2) , pp. 13-24.
- Osborne, J. (2007). Science Education for Twenty-First Century. Eurasia Journal of Mathematics, Science & Technology Education, 3(3), 173-184, https://doi.org/10.12973/ejmste/75396
- Sikula, J. (1996). Handbook of research on teacher education. Macmillan Library Reference USA, Simon & Schuster Macmillan, 1633 Broadway, New York, NY 10019.
- Sukumar, K. S. & Kumar, S. S. (2015). Problems faced in the implementation of Total Quality Management in higher secondary schools in Kerala, India. Journal of Social and Economic Development, 17, pp. 275–297

COURSE CODE: EDU 782

COURSE TITLE: EDUCATIONAL MANAGEMENT, PLANNING AND LEADERSHIP

Teaching Scheme	Examination Scheme	Credits Allotted
Theory: : 3 hours/week	ESE: 100 Marks	Theory:03
Tutorial: 1hours/week		Tutorial:01
		Total:04

Pre-requisite

Any Post graduate student who enrolled in the Ph.D. (Education) programme can study this Course

Course Outcomes

After completion of this course, the students will be able to
1. Understand the concept pf Educational Management
2. Acquire the knowledge of Various theories of Management
3. Develop understanding of the concept of leadership
4. Critically analyze the various leadership theories
5. Develop an understanding of concept of Educational Planning
6. Critically analyze the various approaches to Educational Planning
7. Understand the status of women in educational leadership
8. Identify the research trends in the field of Educational Leadership

COURSE CONTENT

UNIT I	**Concept of Educational Management**	**8 hours**
	Concept of Educational management and Educational Administration Principles of Management- Henri Fayol Functions of Management : POSDCORB Theories of Management	
UNIT II	**Educational leadership**	**8 hours**
	Meaning and Definition of leadership. Leadership qualities or attributes Leading vs. Managing: Some Crucial distinctions	
UNIT III	**Theories of Leadership**	
	a) Trait theories of Leadership b) Situational theories of Leadership c) Fiedler"s Contingency model of Leadership, Path – Goal Leadership theory	**8 hours**
UNIT IV	**Educational Planning**	**11 hours**
	Concept of Educational Planning Need and Importance of Educational planning Approaches to educational planning. • Social demand approach •Man-power approach •Return of Return approach • Types of educational planning	

UNIT V	**Women In Educational Leadership**	**10 hours**
	• Status of women in educational leadership, • Need and importance of women in Leadership positions • Feminine and Masculine leadership • Research Trends in the area of Women leadership	
UNIT VI	**Related Concepts of Leadership in Educational Management**	**15 hours**
	• Leadership and Organizational Climate • Leadership and Staff Morale • Leadership and Organizational Development • Leadership and Faculty Development • Power and Authority • Research Trends in Educational Management and Leadership	
ESE	Written Examination of Complete Course - 100 Marks	

Mode of transaction
Lecture –cum- discussions, Group activities, Case Studies, Role play, assignments, presentation by students

SUGGESTED READINGS
1.Choudhary R (2011) Case studies of women Administrators in higher educationsystem of India. Germany: Lambert Academic publishing   2.Craigs, M.W. (1995). Dynamics of Leadership. Bombay: Jaico Publishing House,Bombay.   3.Hersey.P & Blanchard.K (1986). Management of Organisational Behaviour: UtilizingHuman   4.Resources. New Delhi: Prentice Hall of India   5.Luthans, Fred (1981). Organizational behaviour. Tokyo: McGraw-Hill InternationalBook Co.   6.Sandra Gupton (1996) Highly successful women administrators. California: Corwinpress, Inc, sage publication company.   7.Stephen P. Robbins(2009). Organizational Behaviour. India: Pearson Prentice Hall

COURSE CODE: EDU 783		
COURSE TITLE: COGNITIVE LEARNING		

Teaching Scheme	**Examination Scheme**	**Credits Allotted**
Theory: : 3 hours/week	ESE: 100 Marks	Theory:03
Tutorial: 1hours/week		Tutorial:01
		Total: 04

Pre-requisite

Any post graduate student who enrolled in the Ph.D. (Education) programme can study this Course

Course Outcomes

After completing this course, the students will be able to
1. Develop understanding about cognition and cognitive development
2. Develop understanding about cognitive learning and strategies of Cognitive Learning
3. Appreciate the process of cognitive learning
4. Recognise different cognitive learning theories and learn how to incorporate these theories in their research
5. Pursue an understanding of cognitive neuroscience and its implication in education
6. Analyse how cognitive neuroscience can be a tool to educational research
7. Apply metacognitive knowledge and strategies in learning and research
8. Critically analyse the thrust areas of researches done in cognitive learning
9. Equip with the knowledge of doing research in areas related to cognitive learning

COURSE CONTE NT		
UNIT I	**Introduction to Cognitive Learning**	**9 hours**
	Cognition – Introduction and Perceptual process- memory, imagery, reasoning, reflection, Cognitive development, Cognitive Learning- Definition, benefits of Cognitive Learning, Process of Cognitive Learning, Strategies of Cognitive Learning, Motivated and Self-Regulated learning, Situated Cognition, Embodied Cognition	
UNIT II	**Cognitive Learning Theories**	**15 hours**
	Cognitive Information Processing, Models of Information Processing Theory- Atkinson and Shiffrin Model, Baddeley and Hitch Model, Meaningful Learning and Schema Theory, Interactional theories of Cognitive Development- Vygotsky and Bruner, Social cognitive Theory, Educational Implications	
UNIT III	**Cognitive Neuroscience and Education**	**15 hours**
	Cognitive neuroscience- Definition, Characteristics, basic	

	principles, cognitive foundation of learning theories- whole brain model, Brain Compatible Curriculum and Brain Based Learning Strategies, Bridging gap between brain functioning and learning, Cognitive neuroscience- Implications in Education, Cognitive neuroscience methods as tools in Educational Research	
UNIT IV	**Metacognition and Learning**	**11 hours**
	Metacognition- Concept, Definition and Types of Metacognition- Metacognitive Knowledge and Regulation, Metacognitive Process, Theories of metacognition- Characteristics, Types of Theories, models of metacognition, Metacognitive strategies in Learning	
UNIT V	**Cognitive Research**	**10 hours**
	Meaning and importance of cognitive Research, Cognitive Research Trust, Thrust areas of Cognitive Research- Interdisciplinary research field like Mind, Brain and Education, Educational neuroscience, Neuro- education, Recent Trends in Cognitive Research	
UNIT VI	**Cognitive Learning Technology**	**8 hours**
	Cognitive Learning Technology- concept, Use of technology in Cognitive Learning, Impact of Digital Technology in Cognitive Learning, Cognitive tools, Different types of Cognitive Tools, Use of cognitive tools in Research.	
Internal Assessment		
ESE**	Written Examination of Complete Course - 100 Marks	
Mode of transaction		
Lecture, group discussion, seminar, workshop		
ASSIGNMENT		

ASSIGNMENT

1. Analyze how the models of Cognitive Information Processing can be integrated in our teaching learning process
2. Identify some metacognitive Strategies that can be effectively used in our classroom teaching
3. Write review of five Cognitive Research articles in Education
4. Identify some research areas in Cognitive Research

SUGGESTED READINGS

REFERENCES

Bermudez, Jose Luis(2020). Cognitive Science: An introduction to the Science of the Mind(Third edition).UK: Cambridge University Press

Collins, Stella(2019). Neuroscience for learning and Development: How to Apply Neuroscience and Psychology for Improved Learning and Training (2nd edition). US: Kogan Page

Driscoll, M. (2005). Psychology of Learning for Instruction, 3rd Edition. New York: Allyn & Bacon.

Dunlosky, John & Rawson, Rawson Katherin, A.(2019). The Cambridge Handbook of Cognition and Education(Cambridge Handbooks in Psychology). UK: Cambridge University Press

Goswami, Usha(2007). Cognitive Development: The Learning Brain. Psychology Press.

Hulse, S. H., Egeth, H., & Deese, J. (1987). Th e psychology of learning. (5th Ed.). Boston: McGraw Hill

Hunter, Ella (2016). Current Research in Cognitive Learning and Education. Wilford Press.

Kirshner, David & Whitson, James A.(1997). Situated Cognition: Social, Semiotic and Psychological Perspectives. New Jersey. Lawrence Erlbaum Associates, Publishers.

Marescha, Denis; Butterworth, Brian & Tolmie, Andy (2013). Educational Neuroscience. Wiley Blackwell.

Matlin, Margaret W.(2009). Cognition(7th edition). Wiley.

Murphy, Robin A. & Honey, Robert C.(2016). The Wiely Handbook on the Cognitive Neuroscience of Learning. Wiley Blackwell.

Roger H. Bruning. Gregory J. Schraw, Monica M. Norby, Royce R. Ronning (2003). Cognitive Psychology and Instruction (4th Edition). Prentice Hall.

Silverman, Gordon & Friedenberg, Jay (2006). Cognitive Science: A Introduction to the Study of Mind: USA. Sage Publications Ltd.

COURSE CODE: EDU 784		
COURSE TITLE: TRENDS IN ENTREPRENEURSHIP EDUCATION		
Teaching Scheme	**Examination Scheme**	**Credits Allotted**
Theory: : 4 hours/week	EoSE: 100 Marks	Theory: 04
Tutorial:0 hours/week		Tutorial: 0

Prerequisite

- Any post graduate student who enrolled in the Ph.D. (Education) programme can study this Course.Students presuppose familiarity with basics of education and teaching learning process.

Learning Outcomes: After completion of this course the researcher will be able to:

After completion of this course the researcher will be able to:
- critical understanding on various perspectives of entrepreneurship in education and get sensitisation for doing research in this filed.
- inculcate critically evaluation of the role of researchers in the field of entrepreneurship in education.
- appreciate the challenges and future perspectives related to entrepreneurship in education.
- orient about entrepreneurship in education and also about the short coming related with the contemporary concerns of education policy and practices.
- identify new & suitable research areas of field of entrepreneurship in education.

Course Outcomes The scholars would be acquainted;

1. to explain perspectives of entrepreneurship education.
2. to understand the pedagogical concerns of entrepreneurship education.
3. to appreciate of the role of researchers in the field of entrepreneurship education.
4. to analysis the challenges and future perspectives related to entrepreneurship & entrepreneurial education.
5. to appreciate educational entrepreneurship ethics, issues & challenges in entrepreneurship, researches in entrepreneurship education.
6. to familiarize about entrepreneurship in education, entrepreneurial pedagogy, and also about the short coming related with the contemporary concerns of education policy and practices.
7. to find out a new & suitable research areas of field of entrepreneurship education.

UNIT I	**Introduction to Entrepreneurship**	**08Hours**
	- Introduction to Entrepreneurship, Characteristics, Qualities and Pre – requisites of entrepreneur, Roles of Successful Entrepreneurs, Significance ofEntrepreneurship, Economic, Social and psychological needs for	

	entrepreneurship, Entrepreneurship Process, Types of Entrepreneurship.	
UNIT II	**Basics of Entrepreneurship Education**	**08 Hours**
	• Entrepreneurs are born or made, Multidisciplinary approach to entrepreneurship, the foundations of entrepreneurship as a scholarly field, Needs, significance & scope of entrepreneurship education, Enterprises Education, Issues, Challenges and future perspectives of entrepreneurship education in India.	
UNIT III	**Educational Entrepreneurship & Pedagogy**	**10 Hours**
	• Educational entrepreneurship, Educational entrepreneurs, Educational entrepreneurship Opportunities & Ideas, Entrepreneurial Pedagogy, Pedagogical entrepreneurship in teacher education, Researches in Pedagogical entrepreneurship.	
UNIT IV	**Educational Entrepreneurship & Pedagogy**	**10 Hours**
	• Educational entrepreneurship, Educational entrepreneurs, Educational entrepreneurship Opportunities & Ideas, Entrepreneurial Pedagogy, Pedagogical entrepreneurship in teacher education, Researches in Pedagogical entrepreneurship.	
	Ethics, Issues & Challenges in Entrepreneurship	**12Hours**
UNIT V	• Role of various institutions in developing entrepreneurship in India, National policies for skill development & entrepreneurship, Ethics in entrepreneurship, Issues & Challenges to entrepreneurship as a career option, Entrepreneurial Planning, Basics of Business Plan Development, Resource Mobilization, Methods and procedures to start and expand one's own business.	
UNIT VI	**Researches in Entrepreneurship Education**	**12Hours**
	• Factors affecting success of a new Enterprises, Reasons for the failure and visible problems for Enterprises, Role of Supportive System for Entrepreneurship like CED, EDC, TBI, SIDBI, etc., Basics of Business Plan Development, the failure and success of entrepreneurship education in schools, Emerging trends of researches in the field of entrepreneurship education.	

ASSESSMENT

ESE**	Written Examination of Complete Course - 100 Marks	

Mode of transaction

Learning by Expositions, presentations, projects, seminars, collaborative & cooperative strategies, critical pedagogy, field visits, paraphrasing, reflection and brainstorming session on educational studies related concepts, presentations by students, dialogue and open discussion, and blended learning approach, project work.

ASSIGNMENT

	• Group discussions, debates and dialogue on the emerging trends & related themes in education. • Individual and group presentations & open discussion on education related concerns. • Analysing of the documentaries, movies, literature and texts from the perspective of educational aims, philosophical, sociological and cultural concerns and to prepare presentations and reports. • Comparative study of curriculum and practices of education in different

	countries of the world. ·
	• Case study of any educational entrepreneurs/ educational entrepreneurship/ social entrepreneurship related concerns.
	• Writing reflective papers, assignments and project work on the emerging trends in education.

SUGGESTED READINGS

- **Bornstein, David & Davis, Susan (2010).** Social Entrepreneurship: What Everyone Needs to Know, New York : Oxford University Press.
- **Catherall, Richard & Richardson Mark (2017).** Social entrepreneurship in education, Manchester: Britsh Council.
- **Chakrabarti, Mohit (2005).** Education in the 21st Century, Delhi, Kalpar publication.
- **Delmar, F., & Shane, S. (2003).** Does Business Planning Facilitate the Development of New Ventures? Strategic Management Journal, 24(12): 1165-1185.
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- *https://pdfs.semanticscholar.org/6575/6ce7c178cd410059de1da839ef0687ac3a6a.pdf*
- *http://sim.edu.in/wp-content/uploads/2018/11/Entrepreneurship.pdf*
- *https://cbseacademic.nic.in/web_material/Curriculum20/publication/srsec/Entrepreneurial_Skills_XII.pdf*
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- *https://www.eajournals.org/wp-content/uploads/Factors-Affecting-the-Performance-Business-Success-of-Small-Medium-Enterprises-in-Sudan.pdf*
- *http://gecnilokheri.ac.in/GPContent/BIE%20unit%204.pdf*
- *https://www.gemconsortium.org/news/the-failure-of-entrepreneurship-education-in-schools*
- *https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.511.1631&rep=rep1&type=pdf*

Periodicals

- International journal of entrepreneurship Education
- Entrepreneurship Education
- Journal of Entrepreneurship Education
- Journal of Entrepreneurship in Emerging Economies
- Journal of Arts Entrepreneurship Education
- Journal of Entrepreneurship
- Journal of Innovation and Entrepreneurship

COURSE CODE: EDU 785		
COURSE TITLE:INCLUSIVE EDUCATION		

Teaching Scheme	**Examination Scheme**	**Credits Allotted**
Theory: : 3 hours/week	ESE: 100 Marks	Theory:03
Tutorial: 1hours/week		Tutorial:01
		Total:04

Prerequisite
Any post graduate student who enrolled in the Ph.D. (Education) programme can study this Course

Learning Outcomes

1. UnderstandInclusive,IntegratedandSpecialEducationanddifferentper spectives of inclusive education
2. Know about the key legislations and policies for inclusive education
3. Know the need for Inclusive Education and its practice in Higher Education
4. Understand diverse learner's needs and challenges related to diverse learners
5. Understand the inclusive instructional design and collaborative instruction to promote inclusion

Course Outcomes

1. To develop understanding on the history of inclusive education
2. To acquaint knowledge to Compare integration, special education and inclusive education
3. To develop a conceptual understanding on the social model of disability
4. To conduct research related to Socio-Economically disadvantaged groups
5. To implement Individual Educational Plan

UNIT I	**Overview of Inclusion for Diverse Learners**	**08 Hours**
	a) Inclusive Education for 21st century, Fundamental concepts of inclusive education, Inclusion a worldwide movement. b) Understanding diversities; concept, types and disability as a dimension of diversity c) Philosophy of Inclusion with special reference to children with disabilities d) Traditional Approach vs Inclusive Approach.	
UNIT II	**Classification of Disability**	**12 Hours**
	a) Classification of disability: Sensory impairment, cognitive disabilities, Physical disabilities b) Disability as a social construct, disabilities and its educational implications c) Inclusion related to SEDGs categorized based on gender identities, socio-cultural identities, geographical	

	identities and socio-economic conditions.	
UNIT III	**Curriculum and Instruction**	**9 Hours**
	a) Curriculum: Individualized educational plan, Universal design for teaching learning process b) The era of integrated setting-special classes, the era of inclusive setting –regular classes. Role of Teachers (both regular and special), Role of school Administration. c) Instruction: Concept, Design and instructional media. d) Developing Instructional Plans for diverse learners, Planning for Inclusive Teaching and modification of curriculum including assessments e) Utilization of records/ case profiles for identification, assessment, and intervention for inclusive classrooms. f) Physical education and Co-curricular activities	
UNIT III	**Teaching Strategies and Approaches**	**10 Hours**
	a) Pedagogical strategies: cooperative learning, reflective teaching, Peer mediated instructions. b) Multisensory and multidisciplinary approaches, Full Inclusion approach, partial inclusion approach, Individualized to small group/ large group Approaches. c) Three dimensional model of Inclusive Education. d) Universal design in physical environment e) Learning styles in Inclusive classrooms f) Reasonable accommodations Instructional adaptations	
UNIT IV	**Paradigm and Policy perspectives**	**10 Hours**
	a) Historical perspective and contemporary trends in Indian and Global scenario b) Succession from segregation, integration and inclusion c) Constitutional provisions: PwD Act (1995), RPWD Act 2016, RTE (2006), NPE of Students with Disabilities (1986), and NPE (2006), NEP 2020. d) Salamanca Statement (1994) and UNCRPD (2006), IEDSS (2000). e) Special role of Organizations for education of Children with Disabilities: RCI (2000), National Institutes of different disabilities (India), Composite Regional Centers (CRCs),District Disability Rehabilitation Centers (DDRCs), National Trust (1999) and Voluntary NGOs.	
UNIT V	**Classroom Challenges and Barriers in Achieving Inclusion**	**10 Hours**

		a. Access, Enrolment, participation and learning achievements	
		b. Establishment of inclusive schools, teacher preparation programmes (Human Resource)	
		c. Providing infrastructure facilities, development of instructional materials – Quality of Schooling	
		d. Factors determining school effectiveness	
		e. Community mobilization and participation	
		f. Positive Behavior for Inclusion Developing Action Plan.	
		g. Resource centers in conjunction with special educators for CWSN or Divyang	

Mode of transaction

The content will be transacted through Interactive lectures, Activities, Web lectures, Assignments, Discussions, Seminars and Field visits.

ASSESSMENT

ESE**	Written Examination of Complete Course - 10**0** Marks	

ASSIGNMENT

1. Assignment on Inclusive Classrooms
2. Survey on the availability of Inclusive settings in Main stream setting
3. Identify and prepare a report based on discriminatory practices followed in school.
4. Write an analytical review on educational policies and Implementation of NEP2020 with regard to Inclusive Education
5. Case study on any one disability

SUGGESTED READINGS

- Agarwal,R& Rao, BVLN. (2010). Learning disabilities teaching learning Strategies. Shipra Publications, New Delhi.
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- Cohen, L Manion, L and Morrison, K (2000) Research Methods in Education London:
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- Julie Alan, (2010). The sociology of disability and the struggle for inclusive education. British Journal of Sociology of Education, Vol. 31, No. 5, The Sociology of Disability And Education, pp. 603-619
- Leslie C. Soodak (2003). Classroom Management in Inclusive Settings. Theory into Practice Vol. 42, No. 4, Classroom Management in a Diverse Society, pp. 327-333
- Mishra and Ruchika Gupta (2006). Disability Index: A Measure of Deprivation among Disabled. Economic and Political Weekly.Vol. 41, No. 38, pp. 4026-4029
- Nidhi Singal, (2006). An ecosystemic approach for understanding inclusive education: An Indian case study. European Journal of Psychology of Education. Vol. 21, No. 3, pp. 239-252
- Paul Chapman Publishing Collard, J and Reynolds, C (eds) (2005) Leadership, Gender and Culture in Education,Maidenhead: Open University Press
- Publishers.
- Rebecca Bond and Elizabeth Castagnera, (2006). Peer Supports and Inclusive Education: An Underutilized Resource. Theory into Practice. Vol. 45, No. 3, Inclusive Schooling Practices: From Why to How, pp. 224-229
- Roger Slee (1998).Inclusive Education? This Must Signify 'New Times' in Educational Research British Journal of Educational Studies Vol. 46, No. 4, pp. 440-454
- Routledge Coleman, M and Briggs, A (2002) Research Methods in Educational Leadership and Management, London.
- Srikala Naraian, (2013). Disability, Agency, and Context: A Differential Consciousness for Doing Inclusive Education. Curriculum Inquiry, Vol. 43, No. 3, pp. 360-387

COURSE CODE:	EDU 786
COURSE TITLE:	GENDER IN EDUCATION

Teaching Scheme	Examination Scheme	Credits Allotted
Theory: : 3 hours/week	ESE: 100 Marks	Theory: 03
Tutorial: 1 hour/week		Tutorial:01
		Total: 04

Learning Outcomes

The students will be able to:
1. Clarify the concept of gender and LGBTQ.
2. Critically compare different waves of feminisms in India and Abroad.
3. Analysed the process of gender construction through various agencies of socialization.
4. Identify the gender issues in educational setup in relation to socio-cultural contexts.
5. Aware themselves about the different remedies to address the issues of gender inequality in education.
6. Critically analyse policies and programmes for their gendered basis and outcomes.
7. Critically examine the status of women in higher education and related occupation.
8. Train themselves and other for gender sensitization and gender sensitivity at educational institute and workplace.
9. Apply feminist epistemology and build the capacity of researcher to use feminist method of research and analysis.

Course Outcomes

After completion of the course, students will be able to:
1. Understand the concept of gender, LGBTQ, and various gender-related notions prevail in society.
2. Comparatively analysed different waves of feminism in India and abroad.
3. Investigate the socialization process for framing gender identities and gender roles through various formal and informal agencies.
4. Analysed the gender based discriminatory practices in education in relation to class, caste, religion, and region.
5. Identify and address the gender issues in educational contexts in reference to curriculum, pedagogical practices, school and community.
6. Review the policies and programme from gender lenses.
7. Explore the complex inter-relationship of gender and education and gendering of subjects.
8. Create awareness about the gender sensitization and gender sensitivity and their role to create gender equality.
9. Use feminist epistemology and feminist approach for research work.

	Course Content	Hours Required
UNIT I	**Understanding of Gender**	**15 hours**
	Basic concepts of gender, sex and LGBTQ; Sex-Gender difference as a new Feminist discourse, Feminism- Basic Ideas, Waves of feminism and its implications, Different phases of feminism in India, Comparative and critical analysis of different waves of feminisms in India and	

	abroad. Femininity and Masculinity, Gender Hierarchy and Masculinity in Indian context, Patriarchy- Concept, Origin and its bases, Gender bias and Gender Parity.	
UNIT II	**Social construction of Gender**	**10 Hours**
	Socialization as process of learning of gender roles in cross-cultural perspectives, Theories Socialization: Sex-role theory, Cognitive development theory, Social Constructivist Perspective, Construction of Gender Identities and gender roles through various agencies: Family, Schools, Other formal and informal organization, Contribution of mass media in the process of gendering. Gender inequality in Indian society.	
UNIT III	**Gender and Education: challenges and solutions**	**15 hours**
	Analysis of background of Women's Education in India. Gender gap in education- global and Indian context. Critical analysis of equity and equality Issues of girls education in India: access, retention and exclusion of girls in education in relation to caste, tribe, religion and region. Issues of Gender Inequality in Curriculum and School: Structure of knowledge; Pedagogical practices, curriculum and text books development, Gender and the hidden curriculum. Constitutional provisions and policies for promoting girls' education, Role of media and Teachers as agents of change.	
UNIT IV	**Gender gap in higher education and Vocation**	**10 Hours**
	Status of Women in higher and vocational education. Gender role in the subject and career choice. Recent Trends in Women's Education, Women teacher training-committees and Commissions on Education, Critically examine on status of women in STEM education and related Vocations. Glass ceiling at educational institutes and workplace, Training for Gender sensitization and sensitivity at higher institutes and work place and its role to bring gender equality	
UNIT V	**Feminist Epistemology and approaches to Research**	**10 Hours**
	Androcentrism, Critique for positivism, Feminist Empiricism and Standpoint Epistemology: Double Consciousness, Strong Objectivity. Feminist Pedagogy. Feminist Approaches to Research Methodology: Feminist In-Depth Interviewing, Feminist Practice of Content Analysis, Feminist Practice of Oral History, Feminist Practice of Ethnography, Feminist Survey Research.	

Mode of transaction	
Lecture cum discussion, Debates, Brain Storming Sessions, Community Survey, Aanalyse the documentaries, movies, advertisements , literature, various articles, texts.	

ASSESSMENT		
ESE**	Written Examination of Complete Course - 10**0** Marks	

ASSIGNMENTS
6. Analysed and prepare a report on the documentaries, movies, advertisements or video clips for the portrayal of masculinity and femininity. 7. Write a reflective paper on learning of gender roles in school and through peer groups. 8. Community survey on families of their locality for sexual division of labour and resources. 9. Identify and prepare a report on the gender based discriminatory practices followed in school. 10. Write an analytical review on educational policies through gender perspectives. 11. Analysis of textbook/s of any educational board from the perspective of gender bias and stereotypes. 12. Critically analysed gender gap in various educational data (ASER Report, MHRD report, Educational statistics at a glance by MHRD etc).
SUGGESTED READINGS   1. Bhasin, K. (2000). *Understanding Gender*. New Delhi: Kali for Women. 2. Bhasin, K.(2004). *Exploring Masculinity*. New Delhi: Women Unlimited. 3. Bhasin, K. (2009).*What is patriarchy*. New Delhi: Women Unlimited 4. Chanana, K. (ed.). (1988). *Socialization, Education and Women: Explorations in Gender Identity*. New Delhi: Orient Longman. 5. Friedan, B.(1963). The Feminine Mystique. New York: Nortan. 6. Govinda, R. (2002). *India Education Report: A Profile of Basic Education*. New Delhi: Oxford University Press. 7. Harding, S. (1991). Whose Science? Whose Knowledge? Ithaca, NY: Cornell University Press. 8. Oakley A. (2015) *Sex, Gender and Society*, Ashgate publishing limited, England wey court east 9. Kushwaha, M. (2014). *Gender and Education*. Varanasi: Gangasaran & Grand Sons. 10. Menon, N. (2012). *Seeing like a feminist*. India: Penguin 11. NCERT (2006). 3.2 *Position paper, National Focus Group on Gender Issues in Education.* New Delhi: NCERT. 12. Ramachandran, V. (2004). *Gender and Social Equity in Education: Hierarchies of Access.* New Delhi: Sage Publications.

COURSE CODE: EDU 787		
COURSE TITLE: Curriculum Development		

Teaching Scheme	Examination Scheme	Credits Allotted
Theory: : 3 hours/week	ESE: 100 Marks	Theory:03
Tutorial: 1 hours/week		Tutorial:01
		Total:04

Course Outcomes

1. Comprehend the process of curriculum development
2. Develop insights into models of curriculum development
3. Develop the ability for evaluating the curriculum
4. Probe into the research in curriculum.
5. Formulating principles of Curriculum organization

UNIT I	**Designing and planning curriculums**	**Hours Required**
	• Sources and Formulation are the two curriculum objectives. • A Framework for Curriculum Planning: Needs and Relevance. • Brief overview of Curriculum Planning Frameworks in India with reference to NCFSE-2000, NCF-2005, and NCFTE 2009. • Learning approaches that are student-centred, learner-centred, and community-centred. • Developing curriculum in accordance with curriculum principles.	10 **Hours**
UNIT II	**Curriculum Development Trends in the Current Era**	**12 Hours**
	• Developing curriculum and autonomy. • The institutionalization of the curriculum development process. • Inclusion Curriculum in the Curriculum for Excellence. • The Curriculum for International and Multicultural Education. • Development of e-learning programs and curriculums.	
UNIT III	**Process of curriculum designing**	**12 Hours**
	• Curriculum approaches, patterns, and approaches. • Developing a curriculum - subject-oriented • Core curriculum, curriculum for the broad field of education, curriculum for the learners, humanistic curriculum, and radical curriculum. • Reflecting on the cognitive and affective domains of curriculum design.	

	• Curriculum and learning experiences selection and organization • Principles of Curriculum organization	
UNIT IV	**Curriculum evaluation and research**	**12 Hours**
	• Approaches to curriculum evaluation. • A comprehensive view on models of curriculum evaluation - Quantitative models and Qualitative models (Eisner's) • Understanding the scope of curriculum research. • Areas of curriculum research • Types of research in the curriculum	
UNIT V	**Assessment of curriculum**	**6 Hours**
	• Curriculum Evaluation: Concept and Purpose • Types: Formative and Summative • Norm-referenced and Criterion-referenced. • Continuous Comprehensive Evaluation	
UNIT VI	**Evaluation of curriculum**	**8 Hours**

	• Transparency and Objectivity in Evaluation
	• Techniques of Curriculum Assessment and Evaluation
	    • Portfolios
	    • Rubrics
	    • Self-Assessment
	    • Peer Assessment
	    • Content analysis	

Assessment		
ESE**	Written Examination of Complete Course - 10**0** Marks	

Mode of transaction

Group discussions, lectures cum demonstrations, panel discussions, surveys, critical reviews, report writing, presentations, and seminars.

ASSIGNMENT		
	A Framework for Curriculum Planning, Needs and Relevance.	
	Development of e-learning programs and curriculums.	
	The Curriculum for International and Multicultural Education.	

SUGGESTED READINGS

Collin J Marsh (2004): Key Concepts for understanding Curriculum, Routledge Fuller,London

Denial Tanner, Lawel N.Tannor (1975): Curriculum Development Theory into Practice, Mac Milan publishing Co.Inc. New York.

Lawell Keith, Paul Blare, Sidney Tied (1968): Contemporary curriculum in the elementary school.

Ornstein Allen C and Hunkins Francis (1993): Curriculum Foundations, Principles and Issues, Allyn & Bacon, Boston.

Saylor Galen J.Levis Arthur J., Alexander Millian, M. (1981): Curriculum Planning for better future teaching and learning.

Taba Hilda (1962): Curriculum Development, Theory and Practice, Harcourt Brace and World Inc. New York.

COURSE CODE:	EDU 788	

COURSE TITLE: EDUCATIONAL TECHNOLOGY AND ICT

Teaching Scheme	Examination Scheme	Credits Allotted
Theory: : 3 hours/week	ESE: 100 Marks	Theory: 03
Tutorial: 1 hour/week		Tutorial:01
		Total: 04

Course Outcomes

After completion of this course, the students will be able to
1. understand the concept of Educational Technology and ICT
2. understand the need and importance of Educational Technology and ICT
3. understand the concept of Instructional Design
4. acquire the knowledge of various models for development of instructional design
5. acquire practical teaching skills and gain criticalinsight by using effective technology in education
6. appreciate recent developments in educational technology and apply them in teaching learning process
7. acquaint the students with the challenges and opportunities emerging in integrating new technology in educational process
8. apply technology in evaluation and research
9. Identify the research trends in the field of Educational Technology and ICT

	Course Content	Hours Required
UNIT I	**Concept of Educational Technology and ICT**	**8 Hours**
	Meaning, Concept, Origin, Types, Need and Importance of Educational Technology Meaning, Concept, Origin, Need and Importance of ICT in Education	
UNIT II	**Orientation to ICT**	**8 Hours**
	• MS Word • MS Power Point • MS Excel	
UNIT III	**Concept and Models of Development of Instructional Design**	**10 hours**
	Concept of Instructional Design, Models of Development of Instructional Design: ADDIE Model ASSURE Model Dick and Carey Model	
UNIT IV	**Recent Developments in Educational Technology**	**12 Hours**
	Open Education Resources: Meaning, Concept and Applications, Social Learning: Concept and use of social networking sites, blogs, Discussion forums and videoconferencing, Massive Open Online Courses: Concept and applications	
UNIT V	**Innovations in Teaching-Learning**	**10 Hours**
	Virtual learning Environment: Learning Management System, Google Classroom and Moodle	

UNIT VI	**Application of Educational Technology in Evaluation and Research**	**12 Hours**
	Use of ICT in Evaluation and Research- Computer Assisted Assessment (CAA), E-portfolio, ICT for Research-Online Repositories and Libraries	

Assessment		
ESE**	Written Examination of Complete Course - 100 Marks	

Mode of transaction	
Lecture –cum- discussions, Group activities, Workshop sessions, Role Play, assignments,Presentation by students	

SUGGESTED READINGS

SUGGESTED READINGS

1. Boni Hamilton, Integrating Technology in the classroom.

2. Madan Lal, Essentials of Educational Technology, Anmol Publications.

3. Ronghuai Huang, J. Michael Spector, Junfeng Yang, (2019). Educational Technology: A Primer for the 21st Centuary. Springer.

4. Bates A.W (Tony). Teaching in a Digital Age: Guidelines for designing teaching and learning, Creative Commons Attribution – Non Commericial 4.0 International License. ISBN: 978-0-9952692-0-0.

5. Amy Van Looy.,(2016). Social Media Management Technologies and Strategies for Creating Business Value. *Springer International Publishing AG Switzerland*. ISBN978-3-319-21989-9.

6. Eric, Frick.(2017). Information Technologies Essentials- Basic Foundations for Information Technology Professionals. Amazon Digital Service

7. Law, Nancy., Pelgrum, Willem, J. & Plomp, Tjreed (2008). Pedagogy and ICT uses in Schools around the World : Findings from the IEA SITES 2006study (CERC studies in Comparative Education)

8. Moursund, David (2005). Introduction to Information and Communication TechnologyNureni, Yekin.(2014). Information Communication Technology(ICT).

9. Concept and Application-Self Directed and Collaborative learning Approach.vol 1.Nigeria: Yekuna ICT & Educational Research Publication Centre

10. Pelgrum, Willem J., Law, Nancy(2003). ICT in education around the world-trends,problems and prospects.UNESCO, International Institute for

COURSE WISE PO - CO MAPPING

This section presents Mapping of Programme Objective with Course Outcomes of PhD Course work

Note : 3= High level mapping , 2= Medium level mapping , 1=Low level mapping

COURSE CODE: EDU 701

COURSE TITLE: Research Methodology in Education

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3				2	2
CO2	3	2			2	3
CO3	3	2	3		2	3
CO4	3	3	3	3	2	3
CO5	3	3		3	2	3
CO6	3		3		2	3
CO7	3				2	3
CO8	3				2	3

COURSE CODE: EDU 781

COURSE TITLE: Innovative Reflections on Various Pedagogical Aspects

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3				1	
CO2	3	3				
CO3	2	2	3		2	
CO4		2				
CO5		2			2	2
CO6	1	1			1	1

COURSE CODE: EDU 782

COURSE TITLE: Educational Management, Planning and Leadership

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3					
CO2	3				3	
CO3	3				3	
CO4					3	
CO5	3				3	
CO6					3	
CO7	3					
CO8		3				

COURSE CODE: EDU 783

COURSE TITLE: Cognitive Learning

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3					
CO2	3					
CO3					3	
CO4	3				3	
CO5	3					
CO6						
CO7		3				
CO8		3				
CO9		3				

COURSE CODE: EDU 784

COURSE TITLE: Trends in Entrepreneurship Education

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	3			3	
CO2	3			2	3	
CO3	3	3	3	2	3	3
CO4	3	3		3	3	
CO5	3	3			3	
CO6	3	3			3	
CO7	3	3	2	1	3	2

COURSE CODE: EDU 785

COURSE TITLE: Inclusive Education

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3	2			1	
CO2		3				
CO3	3		1			
CO4			3	3	3	3
CO5	1				1	1

COURSE CODE: EDU 786

COURSE TITLE: Gender in Education

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1					2	
CO2					3	
CO3					3	
CO4	3					
CO5	2					
CO6					3	
CO7					3	
CO8					3	
CO9		3				

COURSE CODE: EDU 787

COURSE TITLE: Curriculum Development

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3		3			
CO2	2	3	2	3	3	2
CO3					2	
CO4	3	3	3	3	3	3
CO5		2		3		1

COURSE CODE: EDU 788

COURSE TITLE: Educational Technology And ICT

Sr. No.	PO1	PO2	PO3	PO4	PO5	PO6
CO1	3					
CO2	3				3	
CO3	3				3	
CO4	3				3	
CO5					3	
CO6	3				3	
CO7						
CO8		3				
CO9		3				

प्रो. रजनीश जैन
सचिव
Prof. Rajnish Jain
Secretary

विश्वविद्यालय अनुदान आयोग
University Grants Commission

(मानव संसाधन विकास मंत्रालय, भारत सरकार)
(Ministry of Human Resource Development, Govt. of India)

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D.O.No.F.1-1/2018(Journal/CARE)   December, 2019

Respected Sir/Madam,

University Grants Commission in its 543rd meeting held on 9th August, 2019 approved two Credit Courses for awareness about publication ethics and publication misconducts entitled **"Research and Publication Ethics (RPE)"** to be made compulsory for all Ph.D. students for pre-registration course work (**attached as Annexure**).

In view of the above, you are requested to ensure that the above two Credit courses may be made compulsory for all Ph.D. students for pre-registration course work undertaken in your University from the forthcoming academic session.

With regards,

Yours sincerely,

(Rajnish Jain)

TO THE VICE-CHANCELLORS OF ALL UNIVERSITIES

Course Title:

- **Research and Publication Ethics (RPE)**-Course for awareness about the publication ethics and publication misconducts.

Course Level:

- 2 Credit course (30 hrs.)

Eligibility:

- M.Phil., Ph.D. students and interested faculty members (It will be made available to post graduate students at later date)

Fees:

- As per University Rules

Faculty:

- Interdisciplinary Studies

Qualifications of faculty members of the course:

- Ph.D. in relevant subject areas having more than 10 years' of teaching experience

About the course

Course Code: CPE- RPE

Overview
- This course has total 6 units focusing on basics of philosophy of science and ethics, research integrity, publication ethics. Hands-on-sessions are designed to identify research misconduct and predatory publications. Indexing and citation databases, open access publications, research metrics (citations, h-index, Impact Factor, etc.) and plagiarism tools will be introduced in this course.

Pedagogy:

- Class room teaching, guest lectures, group discussions, and practical sessions.

Evaluation

- Continuous assessment will be done through tutorials, assignments, quizzes, and group discussions. Weightage will be given for active participation. Final written examination will be conducted at the end of the course.

Course structure

- The course comprises of six modules listed in table below. Each module has 4-5 units.

Modules	Unit title	Teaching hours
Theory		
RPE 01	Philosophy and Ethics	4
RPE 02	Scientific Conduct	4
RPE 03	Publication Ethics	7
Practice		
RPE 04	Open Access Publishing	4
RPE 05	Publication Misconduct	4
RPE 06	Databases and Research Metrics	7
	Total	30

Syllabus in detail

THEORY

- **RPE 01: PHILOSOPHY AND ETHICS (3 hrs.)**

  1. Introduction to philosophy: definition, nature and scope, concept, branches
  2. Ethics: definition, moral philosophy, nature of moral judgements and reactions

- **RPE 02: SCIENTIFICCONDUCT (5hrs.)**

  1. Ethics with respect to science and research
  2. Intellectual honesty and research integrity
  3. Scientific misconducts: Falsification, Fabrication, and Plagiarism (FFP)
  4. Redundant publications: duplicate and overlapping publications, salami slicing
  5. Selective reporting and misrepresentation of data

- **RPE 03: PUBLICATION ETHICS (7 hrs.)**

  1. Publication ethics: definition, introduction and importance
  2. Best practices / standards setting initiatives and guidelines: COPE, WAME, etc.
  3. Conflicts of interest
  4. Publication misconduct: definition, concept, problems that lead to unethical behavior and vice versa, types
  5. Violation of publication ethics, authorship and contributorship
  6. Identification of publication misconduct, complaints and appeals
  7. Predatory publishers and journals

PRACTICE

- **RPE 04: OPEN ACCESS PUBLISHING(4 hrs.)**

1. Open access publications and initiatives
2. SHERPA/RoMEO online resource to check publisher copyright & self-archiving policies
3. Software tool to identify predatory publications developed by SPPU
4. Journal finder / journal suggestion tools viz. JANE, Elsevier Journal Finder, Springer Journal Suggester, etc.

- **RPE 05: PUBLICATION MISCONDUCT (4hrs.)**

A. Group Discussions (2 hrs.)

1. Subject specific ethical issues, FFP, authorship
2. Conflicts of interest
3. Complaints and appeals: examples and fraud from India and abroad

B. Software tools (2 hrs.)

Use of plagiarism software like Turnitin, Urkund and other open source software tools

- **RPE 06: DATABASES AND RESEARCH METRICS (7hrs.)**

A. Databases (4 hrs.)
1. Indexing databases
2. Citation databases: Web of Science, Scopus, etc.

B. Research Metrics (3 hrs.)
1. Impact Factor of journal as per Journal Citation Report, SNIP, SJR, IPP, Cite Score
2. Metrics: h-index, g index, i10 index, altmetrics

References

Bird, A. (2006). *Philosophy of Science*. Routledge.

MacIntyre, Alasdair (1967) *A Short History of Ethics*. London.

P. Chaddah, (2018) Ethics in Competitive Research: Do not get scooped; do not get plagiarized, ISBN:978-9387480865

National Academy of Sciences, National Academy of Engineering and Institute of Medicine. (2009). *On Being a Scientist: A Guide to Responsible Conduct in Research: Third Edition*. National Academies Press.

Resnik, D. B. (2011). What is ethics in research & why is it important. *National Institute of Environmental Health Sciences*, 1–10. Retrieved from https://www.niehs.nih.gov/research/resources/bioethics/whatis/index.cfm

Beall, J. (2012). Predatory publishers are corrupting open access. Nature, 489(7415), 179–179. https://doi.org/10.1038/489179a

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Central University of Rajasthan

Implementing NEP 2020

New Proposed Framework for PhD Coursework

Extract from NEP 2020

https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

"15.9. All fresh PhD entrants, irrespective of discipline, will be required to take credit-based courses in teaching/education/pedagogy/writing related to their chosen PhD subject during their doctoral training period. Exposure to pedagogical practices, designing curriculum, credible evaluation systems, communication, and so on will be ensured since many research scholars will go on to become faculty or public representatives/communicators of their chosen disciplines. PhD students will also have a minimum number of hours of actual teaching experience gathered through teaching assistantships and other means. PhD programmes at universities around the country will be reoriented for this purpose."

In order to implement the NEP2020 and the UGC circular to incorporate a two credits course Research and Publication Ethics (RPE) a framework for the compulsory courses for the PhD programmes of all disciplines is proposed as under:

S. No.	Compulsory Courses	Credits	Norms	Remarks
Knowledge Domain, Research Aptitude and Publication Ethics				
1.	Research Methodology (Compulsory Course to be offered through SWAYAM/NPTEL or by respective Schools) may be Common to All	4	Ordinance 09	Courses to be completed as per the provisions of the ordinance 9 clause 2.iii
2.	Discipline Specific Course(s) as may be recommended by the DRC and approved by the BoS/SB and AC	6-8	Ordinance 09	
3.	Research and Publication Ethics (RPE). (The detailed curriculum is given by the UGC vide circular in August 2019 and and also accepted by the Univ)	2	Ordinance 09 and UGC directives	This course may be completed with the PhD coursework preferably in the first two semester but not later than the maximum of 4 semesters as per provisions of the ordinance 9 clause 2.iii
Teaching / Pedagogy Domain for Professional development*				
1.	**Pedagogy for Higher Education** (The School of Education will facilitate this course with the help of internal faculty and a few external	3	NEP2020 (15.9)	Scholar may take this course anytime during his/her PhD programme.

	experts. A similar course if available on SWAYAM could also be approved by the Dean SoE and offered to the scholars)			However, it is recommended that the RS registers for this course any time between second and third semester of the PhD programme.
2.	**Practice Based Teaching Skills** (Respective Department will facilitate this course. The Research Scholar will facilitate teaching / practical sessions for part of one or more courses course as may be approved by the HoD on recommendation of the DRC. The RS will prepare detailed lesson plans, design learning events, develop contents and facilitate the lecture / practical sessions under supervision of the guide / course instructor.)	3	NEP2020 (15.9)	This course can be taken after successful completion of the basic course 'Pedagogy for higher Education'. This course would be a **non-graded** course. There is no fixed time/ duration for completion of this course. It may be done anytime during the period of stay of the scholar preferably from the second to six semesters of the PhD programme in the extended period of time.

Course code: EDU 705

Pedagogy for Higher Education *(prepared by Dr Anjali Sharma)*

Credits:03 (About 45 hours of interactive learning events that will include lectures, discussions with practice sessions and additional off the class self-learning activities)

Aim and Outline of the course:

The course is designed for the research scholars (may call the prospective teacher of higher education or PhD Entrants) to join higher education institutes as professionals. A researcher generally engages in the teaching-learning process after completing their research and sometimes participates in teaching-learning during their research period as a teacher assistant. Therefore, it is required to give them exposure to the teaching-learning process for conceptual understanding and skill development.

This course will help them understand the teaching-learning process basics, curriculum and assessment, and classroom management. This course will also help scholars be more effective while presenting in seminars and conferences.

Besides developing conceptual knowledge of pedagogy skills this course covers contemporary higher education issues like choice-based credit system, online learning, open-book examination, web-based and research-based pedagogical tools and MOOCs etc.

The scholars would develop insight into the significance of pedagogical knowledge and its implication in their professional life on completing the course. Thus the scholars who complete this course will be fully equipped to teach well immediately as they join any educational institute.

Learning Outcomes

On successful completion of this course the participants will be able to:

- Describe teaching-learning processes especially in context of higher education
- Develop an instructional plan as per the teaching strategy needed.
- Design learning events using different teaching methods
- Use activities and exercises as per the required teaching approach
- Develop web based and research-based pedagogical tool
- Explore the ways to handle diverse group of learners in the classroom
- Use technology effectively to facilitate and support e-learning
- Prepare assessment rubric for achievement testing of students and portfolio
- Demonstrate enhanced competency in communication with students
- Use visual aids and technology in offline and online classes.
- Make effective presentations in seminars and conferences.
- Deliver lectures and facilitate discussions and other activities in the classroom situation.

Target Audiences

The course is designed as a compulsory course for the research scholars of all disciplines. However it may be useful for students of the masters programmes who may be taking this course as an elective to enhance their employability.

Prerequisite

The prerequisite for the course is a bachelor's degree in any discipline.

Course Content

1. **Overview of Teaching and Learning (6 hours)**
    a. Concept of Pedagogy, Andragogy and Heutagogy
    b. Understanding Teaching and related terms, the relationship with learning
    c. Understanding learner and learning cycle
    d. Taxonomy of teaching objectives (Revised Bloom's taxonomy),
    e. Writing learning outcomes

2. **Curriculum and Instruction (8 hours)**
    a. Curriculum: Concept and Facets,
    b. Credit Framework and Choice-based Credit System
    c. Instruction: Concept, Design and instructional media
    d. Developing Instructional Plans

3. **Teaching Strategies and Approaches (9 hours)**
    a. Expository vs Inquiry Strategy (shifting from behaviourism to constructivism)
    b. Individualized to small group/ large group Approaches,
    c. Scenario-Based, Online and Blended Approach, Introduction of MOOCs
    d. Designing Learning Events and Activities for Student Engagement
    e. Component of effective lectures delivery

4. **Pedagogical skills and tools (8 hours)**
    a. Concept of TPACK
    b. Pedagogical Skills - Scanning the class, starting a session, skill of achieving closure skills, skills to lead session, Skill to secure attention (switch over), scaffolding skills, time management, skill to handle challenging situations.
    c. Technological Skills- Using different apps and platforms for teaching, Use of Open Educational resources (OER), developing assignments and learning material using different apps and software
    d. Communication skills - Presenting in Public, Participating in Discussions and Formal Meetings

5. **Assessment and Evaluation (8 hours)**
    a. Concept of Assessment, Assessment for learning, of learning, as learning,
    b. Receiving and Giving Feedback
    c. Assessment rubrics, Assessment Portfolio, Reflective journal

    d. Designing an Achievement test - Objective and Descriptive / Open book question paper

    e. Grading System (Absolute, Relative, CGPA, Conversion of grades to percentage etc)

    f. Conducting Examination, - Face to Face, Online Exams (Proctored and non-Proctored Exams)

    g. Project Reviews and Viva-Voce Examinations

6. Classroom Management (6 hours)

    a. Organizing the Physical environment

    b. Managing learner's behaviour through action research

    c. Counselling, Guidance and Mentoring

    d. Effective Academic leadership

    e. Resource Management

Mode of Transaction

The content will transact through interactive lectures, activities, web lectures, assignments, discussions and seminars and practice sessions (video recorded to provide feedback).

Assessment: CIA and EoSE as per provisions of the university ordinances

NEW COURSE on Pedagogy for Higher Education DESIGNED by Dr Anjali Sharma and reviewed by following five experts from Education Domain:

Prof Saroj Sharma
Professor, School of Education,
Chairperson National Institute of Open School,new Delhi
Guru Govind Singh Indraprasth University, New Delhi

Prof. Gopal Krishna Thakur
Professor & Head
Department of Education
Department of Psychology
Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya
(A Central University), Wardha – 442001, Maharashtra

Prof Amruth G Kumar
School of Education
Central University of Kerela

Prof. B. N. Panda
Professor of Education and Dean of Research
Dept. of Education
Regional Institute of Education (NCERT)
(A Govt. of India Autonomous Organization)
Bhubaneswar-751022,Odisha,India

Course Title: Practice-Based Teaching *(original draft prepared by Dr Anjali Sharma)*

Course code: (to be confirmed as per the department)

Credits:03 (About 60 hours of practical teaching sessions and additional preparatory work to support the teaching)

Aim and Outline of the course:

The course is designed for the research scholars in the continuation of the foundation course of Pedagogy for higher education. As per the expectation of National Education Policy 2020, researchers need to be professionally equipped along with conceptual knowledge and understanding of Pedagogy. Developing teaching skills during the PhD will be a good value addition to a scholar's profile and will help them develop essential pedagogical /teaching skills required for their professional life.

This course is a practice-based course where a scholar is expected to be formally involved in various aspects of delivering a course and will include formal teaching sessions under the guidance of a supervisor.

Learning Outcomes: On completion of the course the participants will be able to:

- Prepare the Instructional plans for the given course
- Write Learning Outcomes for the planned learning event
- Design Learning Events as per the LO
- Deliver Lectures
- Formally speak in Public and make formal presentations
- Support the course instructors / teachers in various aspects of teaching, learning and assessment
- Give effective feedback and provide support to students

Pre-requisites: Successful completion of the course 'Pedagogy for Higher Education'

Contents:

The course contents will depend on the teaching requirement of subject specific discipline. The participant expected to be involved in the whole cycle of delivery of a course for which the following is suggested.

1. Developing Instructional Plans,
2. Writing Learning Outcomes for each session
3. Designing learning activities as per the Instructional Plan and LO
4. Design Cooperative and Collaborative Activities for the students.
5. Delivering Lectures and organizing Seminars,
6. Preparing Handouts / Learning Course Readers
7. Moderating Panel Discussions, Facilitating Group Discussions
8. Facilitating Practicals / Field Visits / Project work / Studio (as per the need)
9. Assessment - developing rubrics, preparing question papers of different types, and assessing answer scripts with written feedback, preparing results etc (for one formative and one summative Assessment)

10. Giving written and verbal feedback on presentations, assessment, reports etc (one-time only)
11. Writing Project Review Report (2 Reports)
12. Develop Open Educational Resources pool in the specific discipline
13. Conduct Seminar /conference and group discussions for the students. (3 Seminars/conference and 2 group discussions)
14. Writing and delivering formal public speeches like welcome notes, introducing speakers, vote of thanks etc. (2 in number from the mentioned activities)
15. Mentoring and Counselling students (5 students only)

Assessment: This will be a non-graded course. The participant will be awarded 'S' for satisfactory performance and 'NS' for non-satisfactory performance on completion of around 60 hours of practical teaching which may be a mix of classroom lectures, formal seminars, facilitating laboratory/studio/field sessions.

Note:

1. The 60 hours of practical teaching and the work on associated activities should ideally be done in one semester. However, these may be spread over two semesters also.
2. The contents listed above are representative in nature and will be balanced by the supervisor in a manner that the scholar is able to accomplish the tasks without feeling overburdened. It is suggested that the department and guide/instructor may take 60% of those activities (specifically designing learning course/hangouts, Instructional plan and Assessment) and may decide about the remaining 40 % of activities on their own. The teaching practice sessions may be spread over one or more courses.
3. The teaching practice should cover theoretical as well practical/studio classes. The allocation of the courses should be connected with the area of research being undertaken by the scholar and must be only a small part of a given course. It is not meant to replace the 'teaching load' of the supervisor.