Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC201 Title: Sociological Foundations of Education

Credits: 4 Maximum Marks: 100

Minor Test-II: 20 Minor Test-II: 20 Major Test: 60

Course Outcomes: After completion of the course, the learner will be able to:

- 1. Develop a sociological understanding of the nature and function of education in society.
- 2. Enable students to analyze the interplay between education and social institutions.
- 3. analyse issues of social stratification, diversity, and inclusion in the context of education.
- 4. Reflect upon the role of education in socialization and social change.

Course Contents:

Unit I: Sociological Perspectives and Theories in Education

Meaning, scope, and importance of sociology of education & Educational Sociology; Relationship between education and society; Major theoretical perspectives: Functionalism (Durkheim); Conflict theory (Marx, Bowles & Gintis); Symbolic Interactionism (Mead, Blumer) Critical Pedagogy (Freire)

Unit II: Education, Culture, and Socialization

Concept of culture and its types; Education as an agency of cultural transmission and transformation; Process of socialization and its agents: family, school, peer group, media, social media & religion; Role of education in preserving, transmitting, and transforming social norms and values.

Unit III: Education and Social Stratification

Concepts of stratification: caste, class, gender, ethnicity in context of India and the Western society; Education and social mobility; Inequality and exclusion in education: barriers and responses; Policies and practices for equity and inclusion (e.g., reservations, RTE Act)

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDTC201 Title: Sociological Foundations of Education

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Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Unit IV: Education, Social Change, and Contemporary Issues

Education as an instrument of social change and modernization (Concept and Types); Role of education in national development and democratic citizenship; Education and contemporary social issues: communalism, gender inequality, privatization of Education, digital divide; Sociological critique of NEP 2020 and implications for inclusive education

Modes of Transaction: Lecture cum Discussion Method and Seminar

Suggested Readings:

Apple, Michael. Education and Power.

Beteille, Andre. Equality and Universality.

Durkheim, Émile. Education and Sociology.

Freire, Paulo. Pedagogy of the Oppressed.

Harlambos M. Sociology Themes and Perspectives

Ministry of Education, Government of India. National Education Policy 2020.

Nambissan, Geetha. Social Exclusion and Schooling: Indian Experiences.

Parsons, Talcott. The School Class as a Social System.

Shanker Rao CN Sociology Principles of Sociology with an Introduction to Social Thought.

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDTC202 Title: Artificial Intelligence for Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Course Outcomes: After completion of the course, the learner will be able to:

- 1. Define and explain the fundamental concepts of Artificial Intelligence, including its scope, goals, the ethical implications of AI technologies for social sciences, identify potential biases, discuss transparency issues, and evaluate the impact of AI on privacy, job displacement, and societal fairness.
- 2. Demonstrate an understanding of the historical evolution of AI by identifying and describing significant milestones, key figures, and pivotal moments in the development of AI technologies.
- 3. Understand basic AI techniques, such as machine learning, computer vision, recommender systems, and natural language processing methods, to analyze and solve social sciences and simple real-world problems.
- 4. Recognize the role of AI in vocational education and skill development, understanding how AI can personalize learning experiences, facilitate adaptive curricula, and contribute to workforce upskilling and reskilling initiatives.

Course Contents:

Unit I: Understanding Artificial Intelligence

Artificial Intelligence (AI): Concept, scope, potential and limitations. Relationship between AI and job displacement, acknowledging and addressing the social and economic concerns arising from the automation of various roles.

Historical perspective by understanding the foundations of early AI, key milestones, and breakthroughs that have paved the way for its current capabilities. AI's presence in popular culture to various myths and misconceptions.

Ethical considerations in the realm of AI development: student data privacy and bias in AI algorithms used in educational settings, creativity, examining issues such as copyright, ownership, and the ethical considerations surrounding AI-generated content.

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC202 Title: Artificial Intelligence for Education

Credits: 4 Maximum Marks: 100

Minor Test-II: 20 Minor Test-II: 20 Major Test: 60

Unit II: AI Techniques and Problem-Solving

Machine Learning: supervised, unsupervised, and reinforcement learning methodologies.

Deep Learning: neural networks, their architecture, and diverse applications. Natural Language Processing (NLP) - language understanding, automated grading and generation, role AI plays in processing and interpreting human language.

Computer Vision such as image recognition, object detection, and image generation powered by AI. Robotics and Automation, exploring how AI contributes to the realms of robotics, process automation, shaping the future of industries and workflows.

Case Studies, presenting real-world examples that showcase the application of AI techniques across faculties to develop simple AI models relevant to education.

Unit III: AI Tools and Emerging Trends

AI Tools and Emerging Trends, practical applications and evolving landscape of artificial intelligence. AI Development Frameworks such as TensorFlow, PyTorch, and scikit-learn, elucidating their role in empowering developers to create sophisticated AI models. Evaluating and selecting appropriate tools for different educational needs.

Cloud-based AI services and platforms, highlighting the integration of AI with cloud computing to enhance scalability and accessibility. Edge AI and IoT, examining the deployment of AI at the edge of the network, showcasing its relevance in scenarios where real-time processing, alignment of AI tools in lesson planning.

Current Trends in AI, ranging from its applications in public healthcare, finance, agriculture, and smart cities. Dynamic nature of AI and its transformative impact across diverse sectors.

Unit IV: AI's Transformative Role in Education

AI's transformative role in Education, its influence on the workforce dynamics. Role of AI in reshaping the land of educational professions, encompassing both its disruptive potential and augmentation capabilities.

AI's contribution in upskilling and reskilling across disciplines/faculties, dynamically adapting skill sets to meet the evolving demands of this intricate field. AI-powered tools for career guidance and skill assessment, demonstrating their relevance in aiding decision-making related to career paths and skill development.

AI's emphasis on personalized learning and adaptive curricula catering to the unique and diverse needs of learners especially in inclusive settings. Understanding public opinion, predictive modeling for societal trends, and data-driven insights for policy formulation.

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC202 Title: Artificial Intelligence for Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Modes of Transaction: Regular face-to-face, computer Lab. practical sessions. workshop mode with explaining of the theoretical aspects, blended and flipped, AI- driven adaptive learning platforms to personalize the learning experience. A companion webpage will be created on AUD LMS to provide reading resources and hands on practice for relevant tools.

Essential Readings:

AI on Campus: Its Impact and Implications. The Chronicle of Higher Education, 2020, https://connect.chronicle.com/rs/931-EKA-218/images/AIonCampusv6.pdf.

AI Ethics in Higher Education: Insights from Africa and Beyond. (2023). Germany: Springer

International Publishing. (Open Access Book). ISBN: 9783031230356. Publisher: Springer

International Publishing. Editors: Caitlin C. Corrigan, Christoph Luetge, Jerry John Kponyo, Simon Atuah Asakipaam.

Antonio Aceves Fernandez, M., & M. Travieso-Gonzalez, C. (Eds.). (2022). Artificial Intelligence Annual Volume 2022. Intech Open. doi: 10.5772/intechopen.109246

Aoun, Joseph E. Robot-Proof: Higher Education in the Age of Artificial Intelligence. MIT Press, 2017.

Bacalja, Alexander, Catherine Beavis, and Annemaree O'Brien. "Shifting landscapes of digital literacy." *Australian Journal of Language and Literacy*, vol. 45, no. 2, June 2022, pp. 253+. *Gale Academic OneFile*,

link.gale.com/apps/doc/A728086026/AONE?u=cuny_nytc&sid=bookmark- AONE&xid=fd6fef66. Accessed 10 Sept. 2023.

Bearman, Margaret, and Rola Ajjawi. "Learning to Work with the Black Box: Pedagogy for a World with Artificial Intelligence." *British Journal of Educational Technology*, vol. 54, no. 5, Sept. 2023, pp. 1160–73. *EBSCOhost*, https://doi-org.citytech.ezproxy.cuny.edu/10.1111/bjet.13337.

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC202 Title: Artificial Intelligence for Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Bierman, Dick, Joost Breuker, and Jacobijn Sandberg, editors. *Artificial Intelligence and Education: Proceedings of the 4th International Conference on AI and Education, 24-26 May 1989, Amsterdam, Netherlands.* IOS Press, 1989.

Doroudi, Shayan. "The Intertwined Histories of Artificial Intelligence and Education." *International Journal of Artificial Intelligence in Education*, 4 Oct. 2022. https://doiorg.citytech.ezproxy.cuny.edu/10.1007/s40593-022-00313-2

G. Harkut, D. (Ed.). (2019). Artificial Intelligence - Scope and Limitations. IntechOpen. doi: 10.5772/intechopen.77611 . https://www.intechopen.com/books/7795

Holmes, Wayne and Kaska Porayska-Pomsta. *The Ethics of Artificial Intelligence in Education: Practices, Challenges, and Debates.* Routledge, 2023.

High-Level Expert Group on Artificial Intelligence. (2019). *A definition of AI: Main capabilities and scientific disciplines*. European Commission. Available at: https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=56341

Huawei Technologies Co., L. (2022). Artificial Intelligence Technology. Singapore: Springer Nature Singapore. (Open Access BOOK). ISBN: 9789811928796, 9811928797. Publisher: 6

Springer Nature Singapore. Author: Ltd Huawei Technologies Co.

Soofastaei, A. (Ed.). (2019). Advanced Analytics and Artificial Intelligence Applications. IntechOpen. doi: 10.5772/intechopen.78899

Suggested Readings:

Automated Machine Learning: Methods, Systems, Challenges (Open Access Book) https://link.springer.com/book/10.1007/978-3-030-05318-5

Aceves-Fernandez, M. A. (Ed.). (2018). Artificial Intelligence - Emerging Trends and Applications. InTech. doi: 10.5772/intechopen.71805

Boden, M. (2018). *Artificial Intelligence: A very short introduction*. Oxford University Press. Bostrom, N. (2016). *Superintelligence: Paths, Dangers, Strategies*. Oxford University Press. Broussard, M. (2019). *Artificial Unintelligence: How computers misunderstand the world*. MIT Press.

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC202 Title: Artificial Intelligence for Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Brynjolfsson, E., & McAfee, A. (2014). *The second machine age: Work, progress, and prosperity in a time of brilliant technologies.* WW Norton and Company.

Understanding Machine Learning: From Theory to Algorithms (2014) by Shai Shalev-Shwartz and Shai Ben-David. Cambridge University Press.

Machine Learning with Applications is a peer reviewed, open access journal. Lee, Raymond S. T. *Artificial Intelligence in Daily Life*. Springer, 2020.

Web References:

https://neuralnetworksanddeeplearning.com/ https://www.deeplearningbook.org/

https://www.intechopen.com/books/6646

https://www.cs.huji.ac.il/~shais/UnderstandingMachineLearning

https://www.cs.huji.ac.il/~shais/UnderstandingMachineLearning/understanding-machine-learning-theory-algorithms.pdf

https://www.elsevier.com/journals/machine-learning-with-applications/2666-8270/open-access-journal

https://www.intechopen.com/books/8523

https://www.iro.umontreal.ca/~bengioy/talks/lisbon-mlss-19juillet2015.pdf

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC203 Title: Teacher Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Course Outcomes: After completion of the course, the students will be able to:

- 1. Understand historical background of teacher education,
- 2. Analyze the functions of agencies of teacher education in professional development,
- 3. Reflect and practice multiple aspects of reflective teaching
- 4. analyze the role and responsibilities of teaching as a profession.

Unit-I Historical Background of Teacher Education

Historical background of Teacher Education in India

Historical development of Teacher Education in the Union Territory of Jammu and Kashmir

Reforms in Teacher Education through National Education Policy 2020.

Unit-II Agencies of Teacher Education

In-service and pre-service teacher education: evolution, organization and modes

Agencies and Institutions of In-service and Pre-Service Teacher Education: DIET, CTE, IASE, SSA, RMSA, SCERT, NCERT, NCTE, NCERT, UGC& MMTTC

Case study of an agency/institution of teacher education in your area

Unit-III Reflective Teaching

Objectives and strategies for promoting reflective teaching

Models of Teacher Education – Behaviouristic, Competency-based and Inquiry Oriented Teacher Education Models

Innovative Practices in Teacher Education— Activity based learning, ICT integration, Experiential learning, Cooperative and Collaborative learning.

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDTC203 Title: Teacher Education

Credits: 4 Maximum Marks: 100

Minor Test-II: 20 Minor Test-II: 20 Major Test: 60

Unit-IV Teaching as a Profession

Professionalism, professional ethics and code of conduct

360-degree performance appraisal of teachers and students

Research in Teacher Education-Why & How

Modes of Transaction: Lecture-cum-discussion method and Seminar

Books Recommended:

CABE, 1992. Report of the CABE Committee on Policy Perspective Govt. of India, MHRD, New Delhi.

Deighton, Lec, C. The Encyclopedia of Education Vol. 1 & 11, MacMillan & Co. & Free Press, New York.

Delors, J. (1996) Learning: The Treasure with in UNESCO publishing.

Dunkin, J. Michael (1987). The International Encyclopedia of Teaching and Teacher Education, Pergamon Press.

Husen, Torsten & Postlethwaite (Eds.) (1984). The International Encyclopedia of Education Pergamon Press, New York, Vol. 1-12.

Mangal, Sheela (2000). Teacher Education: Trends & Strategies, Radha Publishing, New Delhi.

Ministry of Education 1964-66, Education and National Development Report of Indian Education Commission, Govt. of India, New Delhi.

Millman, J., (1988) Handbook of Teacher Education, Boverly Hills, Sage Publishing.

MHRD (1986) National Policy on Education and Programme of Action, Govt. of India, New Delhi.

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDTC203 Title: Teacher Education

Credits: 4 Maximum Marks: 100

Minor Test-II: 20 Minor Test-II: 20 Major Test: 60

MHRD (1990) Rama Murti Committee Report, Department of Education, Govt. of India, New Delhi.

MHRD (1990) Towards an Enlightened and Humane Society; (Rama Murti Committee Report), Department of Education, Govt. of India, New Delhi.

MHRD (1992) Programme of Action, Department of Education, Govt. of India, New Delhi.

Nayar, D.P. (1989) Towards a National System of Education, Mital Publishing, New Delhi.

NCERT (1987) In service Training Package for Secondary Teachers MHR, New Delhi.

NCTE (1998) Curriculum Framework for Quality Teacher Education, NCTE, Publishing, New Delhi.

Oberoi, M.K. (1955) Professional competencies in Higher Education, UGC Publication, New Delhi.

Sahoo, P.K and Das, B.C (2025). Teacher Education and National Education Policy 2020. New Delhi, Concept Publishing Company.

Sikula, J. (Ed.) (1985) Handbook of Research on Teacher Education, New York, MacMillan Publishing.

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No. P2EDTC204 Title: Vocational Education

Credits: 4 Maximum Marks: 100

Minor Test-II: 20 Minor Test-II: 20 Major Test: 60

Course Outcomes: After completion of the course, the learner will be able to:

- 1. Reflect on vocational education and vocationalisation of education in India.
- 2. Understand the different programs and policies working at national level on vocational education.
- 3. Reflect on the innovations in teaching-learning in VET in India.
- 4. Apply their knowledge of Craft Centred Education in day to day life .

Course Contents

Unit-I: Vocationalisation of Education

Vocationalisation of Education: Concept, Needs and Importance

Vocational Education: Concept and types

Problems of Vocationalisation of Education (Social, Academic & Economic)

Essentials for a successful Vocational Programme

Unit-II: Vocational Education: Program and Policies

National Policies on Vocational Education

NEP 2020 and Vocational Education in School and Colleges

Skill India (Kaushal Vikas Yojana): Objectives, needs & Scope

Innovations in Teaching-Learning in Vocational Education and Training (VET): Role of

Vocational Teachers in Innovations

Unit-III: Issues and Challenges in Vocational Education in India:

PSS Central Institute of Vocational Education, Bhopal (NCERT): working & Mandate

A study of Vocationalisation in Germany, Singapore & Finland as a model of Vocational Education

Training of teachers/trainers: Issues in training of teachers/trainers – lack of qualified teachers/trainers, lack of institutions for training, lack of involvement of industry in training, lack of employability skills

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDTC204 Title: Vocational Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

Unit-IV: Craft Centered Education: Wood Work

Craft Centered Education: Meaning, Nature, Types and Scopes

M.K. Gandhi and his recommendations on Craft Centered Education

Woodwork: Need, importance and scope of woodwork

Workshop Activities: Workshop discipline, safety, precaution, safe handling of tools, first aid,

definition of push and pull saw, fret saw and saw sharpening.

Mode of Transaction: Lecture cum Field Visit Method

Books Recommended:

Agrawal J.C & Agrawal S.P. (1999). Vocational Education in India, Why, What and How. Doaba House.

Alan Brown, Simone Kirpal, Felix Rauner (2007). Technical and Vocational Education and Training: Issues, Concerns and Prospects, Identities at Work (Technical and Vocational Education and Training: Issues, Concerns and Prospects) [1 ed.]. Springer Netherlands.

BIBB (Federal Institute for Vocational Education and Training) "Vocational Education and Training in Germany"

David Sherlock, Nicky Perry (2008). Quality Improvement in Adult Vocational Education and Training: Transforming Skills for the Global Economy. Springer Netherlands.

Evans, R.N & Herr, E.L. (2004). Foundations of Vocational Education. (2nd ed.) Macmillan. 16

Felix Rauner, Rupert Maclean (auth.), Felix Rauner, Rupert Maclean (eds.), (2008). training, Handbook. Springer Netherlands.

Institute of Technical Education (ITE), Singapore "Educating for the Future: The ITE Story"

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDTC204 Title: Vocational Education

Credits: 4 Maximum Marks: 100

Minor Test-I: 20 Minor Test-II: 20 Major Test: 60

John Stevenson (2007). Developing Vocational Expertise: Principles and Issues in Vocational Education. Springer Netherlands.

Mays, A.B. (1992). Principals and Practices of Vocational Education. McGraw Hill Book co, inc. New York.

Ministry of Skill Development and Entrepreneurship. (2015). National Policy for Skill Development and Entrepreneurship. https://www.msde.gov.in/en/reports-documents/policies/national-policyskill-development-and-entrepreneurship-2015

(OECD) "Education Policy Outlook: Finland"

(OECD Review) "Vocational Education and Training in Singapore"

OECD Reviews of Vocational Education and Training" The German Vocational Education and Training System: Strengths, Challenges and Recommendations"

Peter Willis, Stephen McKenzie, Roger Harris (auth.), Peter Willis, Stephen Mckenzie, Roger Harris (eds.). (2009). Technical and Vocational Education and Training: Issues, Concerns and Prospects 9, Rethinking Work and Learning: Adult and Vocational Education for Social Sustainability [1 ed.]. Springer Netherlands. 17

Roberts, R.W. (2009). Vocational and Practical Arts Education- History, Development and Principles. Harper & Persthers Publishers, New York.

Sharma, S.R. (2002). Vocational Education and Training. Mittal Publishers, New Delhi. 12.

Thakur, D. & Thakur D.N. (eds). Vocational and Technical Education, Deep and Deep Publications, New Delhi.

"The Oxford Handbook of Vocational Education and Training" Editors: David Guile, Lorna Unwin.

Thimmaiah, S. et.al. (1998). Vocational Education- Problems and prospects. Himalaya Publishing House, Bombay.

Syllabus for the Examinations to be held in May 2026, 2027and 2028

Course No. P2EDRC205 Title: Research Proposal

Credits: 4 Maximum Marks: 100 (25 internal +75 External)

Prepare a research proposal and Preparation of Tools on a selected Educational related Problem/Issue with its procedural design

1. Structure of the Research Proposal

- Front Page (Statement of the Problem, Guide, Researcher and affiliation)
- Introduction
- Review of related literature
- Justification of the study
- Operational Definitions of the key terms used
- Objectives of the Study
- Hypothesis/Research questions
- Research Methodology:
 - i. Variables
 - ii. Population and Sample
 - iii. Tools to be used
 - iv. Data Collection
 - v. Scoring Procedure
 - vi. Statistical Technique/s to be used
- Analysis of Data and Interpretation of results
- Delimitations of the Study
- References

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Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No.: P2EDPC206 Title: School Internship-II

Total Marks: 100 (25 Internal + 75 External)

Credit: 04

Critical Commentary/assessment on the Educational Profile as well as performance (5 days Programme) on:

- 1. Visit & observe Foundational Stage School: Prepare Report on its overall functioning (20 marks)
- 2. Visit & observe Preparatory Stage School: Prepare Report on its overall functioning (20 marks)
- 3. Visit & observe Middle Stage School: Prepare Report on its overall functioning (20 marks)
- 4. Visit & observe Secondary School: Prepare Report on its overall functioning (20 marks)
- 5. Visit & observe one College of Education: Prepare Report on its overall functioning (20 marks)

Syllabus for the Examinations to be held in May 2026, 2027 and 2028

Course No.: P2EDVC251 Title: Vocational Education (Practical Based)

Total Marks: 100 (25 Internal + 75 External)

Credit: 04

Unit-I: Vocationalisation of Education

Vocationalisation of Education: Concept, Needs and Importance

Vocational Education: Concept and types

Problems of Vocationalisation of Education (Social, Academic & Economic)

Essentials for a successful Vocational Programme

Unit-II: Vocational Education: Program and Policies

National Policies on Vocational Education

NEP 2020 and Vocational Education in School and Colleges

Skill India (Kaushal Vikas Yojana): Objectives, needs & Scope

Innovations in Teaching-Learning in Vocational Education and Training (VET): Role of

Vocational Teachers in Innovations

Unit-III: Issues and Challenges in Vocational Education in India:

PSS Central Institute of Vocational Education, Bhopal (NCERT): working & Mandate A study of Vocationalisation in Germany, Singapore & Finland as a model of Vocational Education

Training of teachers/trainers: Issues in training of teachers/trainers – lack of qualified teachers/trainers, lack of institutions for training, lack of involvement of industry in training, lack of employability skills

Unit-IV: Craft Centered Education: Wood Work

Craft Centered Education: Meaning, Nature, Types and Scopes

M.K. Gandhi and his recommendations on Craft Centered Education

Woodwork: Need, importance and scope of woodwork

Workshop Activities: Workshop discipline, safety, precaution, safe handling of tools, first aid,

definition of push and pull saw, fret saw and saw sharpening.

Practicals: Visit to the centres of Wood Carving / Computer Hardware & Networking /DTP