

M Ed Two Year Programme

S.Et. 2 (b): Advanced Educational Technology

Maximum Marks: 100

Rationale

In the ongoing era, an expert in the field of education can't be a real expert without having adequate knowledge of advanced educational technology. For having an in-depth knowledge and understanding of the subfield of educational technology, one needs to develop critical understanding of the concept and applications of instruction, communication, media, instructional designs, teacher behavior modification and recent trends in learning systems, policies and priority areas in this field. As a whole, it has become almost essential to learn about advanced educational technology to excel currently in the field of education.

This set of experiences is visualized with an assumption that many student teachers will have a basic familiarity with computers, even if they do not have much hands-on experience. It is intended to enable student-teachers to recognize, understand and appreciate ICT as an effective learning tool for learners and an enormous functional support to teachers.

This course should be dealt with essentially as a competence development component with conceptual understanding of the technology dimensions and their educational usability. It is best conducted in a blended mode, with plenty of practical assignments.

A significant point is that the student teachers have different levels of familiarity with ICT and use of technologies, and students can be made to work in supportive groups.

Objectives

- To explore and revisit the relevant syllabi at B.Ed. level in order to develop basic understanding of concept of educational technology
- To evolve learning tasks involving instruction, communication and media
- To explore instructional designs available for teaching
- To develop the critical understanding about appropriate instructional designs for teachers
- To exercise studying teacher behaviour modification based on experiences of face to face classroom interactions
- To hold group discussions and write articles on recent trends in learning systems, policies and priority areas

Unit 1. Basics of Educational Technology: Concept and evolution of educational technology and information and communication technologies

Practicum: Revisiting syllabi of Basic Educational Technology and ICT

Unit 2. Instruction, Communication and Media: Changing trends from face to face to virtual/online interaction, significance of virtual and mass media

Practicum: Paper/article writing on media and instruction

Unit 3. Instructional Designs: Programmed instruction, Keller's plan, mastery learning, collaborative instruction, cooperative instruction, large group instructions

Practicum: Developing instructions for a course using any one design

Unit 4. Studying Teacher Behaviour Modification: Continuum from microteaching, interaction analysis to competence based teacher education
Practicum: Analysis of classroom interaction using Flander's interaction analysis category system

Unit 5. Recent Trends in Learning Systems: Policies and priority areas
Practicum: Paper/article writing based on contemporary policies and priority areas

Suggestive Readings

Print resources:

- Apple, M. (1991): The new technology: Is it part of the solution or part of the problem in education? *Computers in the Schools*, 8(2), 59-81.
- Apple, M. (1995): *Education and Power*. New York: Routledge.
- Barron, A.E., Orwig, G.W., Ivers, K. S. & Lilavois, N. (2002). *Technologies for Education: A Practical Guide, Reference Sources in Science and Technology Series, (Edition 4)*. New York: Libraries Unlimited.
- Cheng, I., Safont, L.V. & Basu, A. (2009). *Multimedia in Education: Adaptive Learning and Testing*. New Jersey: World Scientific Pub Co Inc.
- Collins, J., Hammond, M. & Wellington, J.J. (1997). *Teaching and Learning with Multimedia*. London: Routledge.
- Dale, E. (1969). *Audiovisual Methods in Teaching, (Edition 3)*. New York: Dryden Press.
- D'Antoni, S. & Savage, C. (eds) (2009). *Open Educational Resources: Conversations in Cyberspace*. New York: United Nations Educational, Scientific and Cultural Organization.
- Ehlers, U.D. & Schneckenberg, D. (eds) (2010). *Changing Cultures in Higher Education: Moving Ahead to Future Learning*. London: Springer.
- Goswamy, B. P. (2006): *ShaikshikTaknikiEvamKaksha-KakshPrabandh*. Delhi: Swati Publication.
- Jonassen, D.H. (ed) (2003). *Learning to Solve Problems with Technology: A Constructivist Perspective, (Edition 2)*. California: Merrill.
- Jonassen, D.H., Peck, K.L. & Wilson, B.G. (1999). *Learning with Technology: A Constructivist Perspective*. California: Merrill.
- Joyce, B.R., Weil, M. & Calhoun, E. (2009). *Models of Teaching, Alternative eText Formats Series, (Edition 8)*. Boston: Pearson/Allyn and Bacon Publishers.
- Kanvaria, V. K. (2014). *A Comprehension on Educational Technology and ICT for Education*. GBO: Delhi.
- Ledford, B.R. & Sleeman, P.J. (2001). *Instructional Design: A Primer*. Greenwich: Information Age Publishing.
- Leonard, D.C. (2002). *Learning theories: A to Z*. Westport: Greenwood Publishing Group.
- Mayer, R.E. (2009). *Multimedia Learning, (Edition 2)*. New York: Cambridge University Press.
- McQuail, D. (1984). *Communication, Aspects of Modern Sociology: Social Processes, A.O.M.S. Social Processes Series, Surveys in Economics, (Edition 2)*. New York: Longman.
- Mishra, S. & Sharma, R.C. (eds) (2005). *Interactive Multimedia in Education and Training*. London: Idea Group Inc (IGI).
- OET (2000). *E-learning : Putting a World-class Education at the Fingertips of all Children : The National Educational Technology Plan*. Office of Educational Technology, US Department of Education. New York: DIANE Publishing.

Pathak, R. P. (2007): ShaikshikProdyogikiKeinNayeAayaam. Delhi: S. M. Books.
Roblyer, M.D. (2007).Integrating Educational Technology into Teaching, (Edn 4). Delhi: Pearson Education India.
Roblyer, M.D., Edwards, J. &Havriluk, M.A. (1997).Integrating Educational Technology into Teaching. Chicago: Prentice Hall.
Saxena, P. K. (2008): ShaikshikProdyogikievamKakshaPrabandh. Delhi: KK Publications.
Sharma, S. & Gupta, N. (2007): ShaishikTaknikiAvamKakshaKakshPrabandhan. Jaipur: ShyamPrakashan.
Singh, Y.K., Sharma, T. K. &Upadhyay, B. (2008). Education Technology: Teaching Learning. New Delhi: APH Publishing.
Solomon, G. &Schrum, L. (2007). Web 2.0: New Tools, New Schools. Washington: International Society for Technology in Education.
Spencer, K. (1991): The Psychology of Educational Technology and Instructional Media. Liverpool: United Writers Press.
Timothy J. N., Donald A. S., James D. L., James D. R. (2010). Educational Technology for Teaching and Learning, (Edition 4). NOIDA: Pearson Education.

Web resources:

http://en.wikipedia.org/wiki/Educational_technology
http://portal.unesco.org/ci/en/ev.php-URL_ID=1657&URL_DO=DO_TOPIC&URL_SECTION=201.html
http://wikieducator.org/Educational_Technology
<http://www.oercommons.org/>
<http://www.unesco.org/new/en/education/>
<http://www.unescobkk.org/education/>
<http://www.unescobkk.org/education/ict/>