**Educational Technology & ICT 3(3+0)**

Course Description

The purpose of this course is to provide help the students, understand, use, and apply a range of Information Communications Technologies (ICTs) such as computers and the Internet, other audio and video equipment, mobile phones, and online resources and tools as part of the teaching and learning process. This course will focus on how technology promotes, supports, and enhances all of these core components. The focus of this course is to provide with the knowledge and skills regarding how ICTs can be used to engage students in the learning process, improve understanding of content as well as instructional and assessment practices, and enhance communication and collaboration in the classroom. The course focuses on teaching with technology. Technology in this course largely means computers/laptops, though instruction is largely similar whether a teacher is using a laptop or cell phone and how technology can support content knowledge, instruction, assessment, and collaboration.

Course Objectives

The course will enable learners to:

1. Understand the meaning, concept and importance of instructional technology in education process.
2. Know the meaning of learning and appreciate what is effective teaching and learning by using latest instructional technology.
3. Select, arrange and use appropriate methods/strategies and material for effective use of technology.
4. Develop indigenous materials as instructional aids.

Course Outline

1. The nature of Educational Technology
   1. Meaning and definition of educational technology
   2. Origin of educational technology
   3. History of educational technology
   4. Types and components of educational technology
   5. Difference in IT & ICT
2. Educational Technology in Learning
   1. Theories of Learning
   2. The Process of Learning
   3. Role of Teacher in Learning
   4. Role of technology in learning
3. Instructional Media I
   1. Basic concepts
   2. Tape-Recorder, Radio, Television and video
   3. Language Laboratory
   4. Educational telecasting and Television
   5. Fields, trips, exhibition, museum
4. Instructional Media II
   1. Videotext and electronic mail
   2. Interactive video, Video and film
   3. Projectors, types and uses, Computer
   4. Internet and intranet, Multimedia, Language laboratories, Models
   5. Reprography, Board work: Bulletin and fallen boards
5. Communication
   1. Nature of Communication
   2. Elements of Communication
   3. Problems in Communication
   4. Education and Communication
6. Media and Their Uses in Learning Process
   1. Use of locally available low cost material of educational technology
   2. Media:
   3. Meaning and concept
   4. Use of Mass Media in Education
7. Current types of the educational technology systems and their application
   1. Computer-based educational technology
   2. Interactive video and multimedia stations
   3. Virtual reality systems: Simulations & games
   4. Teleconferencing
   5. Personal digital assistants (PDAs)
   6. Laboratory and workshop instructions
8. Planning and implementation for effective technology integration in
   1. Teaching, Preparing / planning for technology integration
   2. Obtaining the right material and personnel resources and Choosing the right software & hardware for yours needs
   3. Training the teachers for using educational technology
   4. Introduction to technology support tools ,Using graphics tools, Using planning and organizing tools , Using tools to support specific content areas
   5. Using interactive videodisc technology in teaching , Using hypermedia in teaching and learning
9. Integrating Technology into the Curriculum and Instruction
   1. Technology in science and mathematics instruction , Technology in social science instruction
   2. Technology in language arts and foreign language instruction
   3. Technology in music and art instruction, Technology in exceptional student education
   4. Issues and trends related to technology use in instruction
   5. Trends
      1. Adaptive learning
      2. Content Curation
      3. Micro learning
      4. Mobile Assisted Language Learning

*Recommended Texts:*

1. Huang R., Spector J.M., Yang J. (2019). *Educational Technology. Lecture Notes in Educational Technology*. Springer, Singapore.https://link.springer.com/book/10.1007/978-981-13-6643-7

2. Huang, R. J., Spector, M., & Yang, J. (2019). *Educational Technology*. Springer Nature Singapore PTE Ltd. DOI: https://doi.org/10.1007/978-981-13-6643-7

*Suggested Readings:*

1. Joyce, B., Weil, M., Calhoun, E. (2014). *Models of Teaching (9th Ed.),* New York*:* Pearson, ISBN 0133749304

2. Laurillard, D. (2013). *Teaching as a design science: Building pedagogical patterns for learning and technology*. New York: Routledge.

3. Feden, P. D. and Vogel, R. M. (2003)*. Methods of teaching*. Boston: Mc-Graw Hill