

**Bachelor of Education (B.Ed.)**

**Title of the Course: E.3: Digital Technologies in Education  
(Semester: IV)**

**Credits: 4**

**MM: 100 (External: 70 Internal: 30)**

**Contact Week 15**

**Introduction of the Course**

The Objective of the course is to enable the students to develop an understanding of Digital Technologies in Education. It will enable them to develop their understanding on fundamentals of computer, computers and other web based tools and their role in teaching-learning and assessment processes. The course also aims to deepen students understanding on digital pedagogies, its role in developing digital literacies and digital citizenship, and different modes of digital teaching and learning.

**Learning Outcomes**

After completion of the course student will be able to:

1. explain the fundamentals of computer
2. describe the use of computer and web technologies in the classroom teaching learning and assessment practices
3. explain digital pedagogy and demonstrate digital literacy
4. describe different modes of digital teaching and learning

**Number of Units**

**Weeks 15= 30 hours**

**Unit I: Computers in Education**

**(3 weeks=6 hours)**

*Fundamentals of Computer*

- Hardware and Software
- Troubleshooting, Networking and Internet Security

*Computer supported teaching-learning in Education*

- Computer Aided and Assisted Learning
- Computer supported Collaborative Learning

**Unit 2: Web Technologies in Education**

**(4 weeks= 8 hours)**

- Evolution of Web technologies
- Web 1.0 to Web 5.0 technologies
- Web technologies in teaching-learning and assessment processes

**Unit 3: Digital Pedagogies for 21<sup>st</sup> Century Learning**

**(4 weeks=8 hours)**

- Digital Pedagogy: Concept and Need
- Theoretical Underpinnings
- Digital Pedagogy role in developing digital literacies
- Fostering Digital Citizenship through Digital Pedagogies

**Unit 4: Introduction to Digital Teaching and Learning**  
hours)

(4 weeks =8

- Concept of Digital Teaching and Learning (DTL)
- Modes of Digital Teaching and Learning (Onsite-TEL, Online, Blended and Hybrid)
- Benefits and Challenges of different modes of DTL
- Instructional Strategies and Assessment practices in different modes of DTL

**Practicum/ Suggested Projects / Assignments (Any Two)**

- Engage discussion in small groups on computer fundamentals after reading/watching related videos from 'youtube'.
- Develop an instructional video of working with web tools
- Engage collaboratively in a problem based learning situation on any content from the syllabus.

**Note:** On the basis of the above, the teacher may design his/her own relevant projects/ assignments.

**Essential/ Recommended Readings**

- Becirovic, S. (2023). *Digital Pedagogy: The Use of Digital Technologies in Contemporary Education*. Singapore: Springer.
- Etuk, P. A. (2023, December 11). *EVOLUTION OF THE WEB: THE WEB 1.0 TOWEB 5.0 VERSION*. Retrieved from Medium: <https://tehillah6.medium.com/evolution-of-the-web-the-web-1-0-to-web-5-0-version-bd0d7fed234e>
- Howell, J. (2012). *Teaching with ICT : digital pedagogies for collaboration & creativity*. Victoria: Oxford University Press.
- MacDonald, B., Atkin, R., Jenkins, D., & Kemmis, S. (1977). Computer Assisted Learning: Its Educational Potential. In R. Hooper, *Rhe National Development Programme in Computer Assisted Learning: Final Report of the Director* (pp. 1-32). London: The Council for Educational Technology.
- McMurray, P., & Hoover, L. W. (1984). The Educational Uses of Computers: Hardware, Software, and Strategies. *Journal of Nutrition Education*, 16(2), 39-45.
- Nilson, L., & Goodson, L. (2021). *Online Teaching at its Best: Merging Instructional Design with Teaching and Learning Research* (Second ed.). San Francisco: Jossey-Bass.
- Sadiku, M., & Akujobi, C. (2022). *Fundamentals of Computer Network*. Humana Press.
- Trede, F., Markauskaite, L., McEwen, C., & Macfarlane, S. (2019). *Education for Practice in a Hybrid Space: Enhancing Professional Learning with Mobile Technology*. Singapore: Springer.
- University of Michigan. (n.d.). *Teaching Modes: On-site, Blended, Online*. Retrieved May 1, 2024, from LSA Technology Services: <https://lsa.umich.edu/technology->

services/services/learning-teaching-consulting/teaching-strategies/online---blended-teaching/teaching-modes.html

### **Teaching Learning Process**

The course will be taught through interactive pedagogic methods such as classroom discussion, debates, PBL collaborative learning tasks which enhance comprehending content area. Reflective expression and learning will be encouraged.

### **Assessment Method**

The assessment will be formative in nature and will factor in student participation. Individual and group tasks and assignments will be given. Summative evaluation will be done through end-semester examination.

### **Key words:**

Computer Assisted Learning, Web Technologies, Digital Pedagogy, Onsite Learning, Online Learning, Blended Learning and Hybrid Learning



Head/Dean

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