

Course Title: **Digital Pedagogy**  
Course No.: ICT Ed. 468  
Level: Bachelor  
Semester: Six

Program: **BICTE**  
Nature of Course: Theoretical + Practical  
Credit Hours: 3 (2T+1P)  
Teaching Hours: 64 (32T+32P)

### 1. Course Description

This course explores to the integration of technology and education, using a focus on the concepts and techniques of digital pedagogy as an instrument of enhancing the process of learning. The course will cover fundamental ideas including e-learning, the journey towards E-Learning 3.0, incorporating the use of digital tools, gamification approaches, learning management systems (LMS), and the development of impactful learning exercises. The evaluation of student performance will be prioritised using a range of assessment methodologies. This course also explore the possibilities of digital pedagogy and transform teacher approach to teaching and learning in the digital age.

### 2. Course Objectives

The general objectives of this course are as follows:

- Explore the foundations of e-learning, evolution, and role in modern education.
- Demonstrate the eLearning 3.0 tools and their integration into instructional design for enhanced learning outcomes.
- Explore gamification principles and techniques to increase student engagement and motivation.
- Gain practical skills in utilizing learning management systems for resource management and performing student activities on online and blended learning.
- Explore various assessment methods and strategies for evaluating student performance in digital learning contexts.

### 3. Specific Objectives and Contents

Specific objectives	Contents
<ul style="list-style-type: none"><li>• Recall the historical development and fundamental principles of e-learning.</li><li>• Differentiate between synchronous and asynchronous learning methods</li><li>• Examine the evolution of e-learning to E-Learning 3.0, including the emergence of Virtual Learning Environments (VLEs), and assess their importance amidst associated challenges.</li></ul>	<b>UNIT I: Concept of e-Learning (6T+2P)</b> 1.1 Concept of E-learning 1.2 Synchronous Vs Asynchronous Learning 1.3 Concept of E-Learning 3.0 1.4 Concept of Virtual Learning Environment (VLE) 1.5 Concept of Digital Pedagogy and TPACK Framework 1.6 Importance and challenges of e-learning <b>Practical Activities</b> <ul style="list-style-type: none"><li>• Surfing the five key e-Learning portals and explore the key features</li><li>• Demonstrate the any one VLE online environment and explores the key features</li></ul>
<ul style="list-style-type: none"><li>• Recall Pedagogy Wheels and e-learning tools for education.</li><li>• Explain the use of social media platforms like Facebook, YouTube,</li></ul>	<b>UNIT II: e-Learning 3.0 Tools and Integration (6T+8P)</b> 2.1 Concept of Pedagogy Wheels and e-learning tools 2.2 Use of Social Media Features for learning such as Facebook, YouTube and LinkedIn etc.

<p>and LinkedIn for educational activities.</p> <ul style="list-style-type: none"> <li>• Utilize podcasting tools for creating audio-based learning materials.</li> <li>• Evaluate the integration of AI generative tools for educational purposes.</li> <li>• Apply AI-based translator, rephrase, summarizer, and plagiarism detector tools for educational content creation.</li> <li>• Implement online quiz maker tools effectively to create interactive assessments and engage learners in the learning process.</li> </ul>	<p>2.3 Integration of Podcasting tools for learning such as audacity etc.</p> <p>2.4 Integration of AI Generative tools for learning such as Open AI ChatGPT, Google Gemini, Bing Copilot</p> <p>2.5 AI based translator, rephrase, summarizer and plagiarism detector tools for education such as google translator, quillbot etc.</p> <p>2.6 Integration of online quiz maker tools for learning</p> <p><b>Practical Activities</b></p> <ul style="list-style-type: none"> <li>• Demonstrate three features of Facebook, YouTube and LinkedIn for learning</li> <li>• Use any one Podcasting tool and broadcast the recorded audio.</li> <li>• Create educational learning materials using AI generative tools such as Open AI ChatGPT, Google Gemini, Bing Copilot and explore the key features</li> <li>• Integrate the AI generative tools in MS Word, Excel, PowerPoint and email.</li> <li>• Integrate the AI generative tools in Google Doc, Presentation, Gmail and Calendar.</li> <li>• Integrate any one online quiz maker tools such as Quizizz</li> </ul>
<ul style="list-style-type: none"> <li>• Define the concepts of gamification, storytelling, and the block based applications for gaming.</li> <li>• Explore the application of Scratch and Apps Inventor for gaming, including their basic components.</li> <li>• Apply Scratch blocks and Apps Inventor components to create gaming projects.</li> <li>• Analyze the importance of gamification in learning and its relevance to educational contexts.</li> </ul>	<p><b>UNIT III: Gamification on Learning (6T+10P)</b></p> <p>3.1 Concept of Gamification in Education</p> <p>3.2 Concept of story telling</p> <p>3.3 Application of MIT Scratch for gaming</p> <p>3.4 Different categories of Scratch blocks: Motion, Looks, Sound, Events, Control, Sensing, and Operators.</p> <p>3.5 Application of MIT Apps Inventor for gaming</p> <p>3.6 Basic Components of Apps Inventor: user interface, layout, media, sensor.</p> <p>3.7 Importance of gamification in learning</p> <p><b>Practical Activities</b></p> <ul style="list-style-type: none"> <li>• Develop any two story-telling project using Scratch block programming</li> <li>• Develop any two gaming-project using Scratch block programming</li> <li>• Develop any two mobile apps for learning using MIT Game Inventor tools</li> </ul>
<ul style="list-style-type: none"> <li>• Define the concept of Learning Management Systems (LMS) and their role in education.</li> <li>• Explore the characteristics and advantages of open-source-based LMS tools.</li> <li>• Apply create course and learner</li> </ul>	<p><b>UNIT IV: LMS and Learning Resources Design (8T+6P)</b></p> <p>4.1 Concept of Learning Management System (LMS)</p> <p>4.2 Open source based LMS tools</p> <p>4.3 LMS course and learner enrollment</p> <p>4.4 Create and upload the text base (PDF) materials in LMS</p>

<p>enrollment processes in LMS.</p> <ul style="list-style-type: none"> <li>• Create and upload text-based materials (PDFs) to an LMS for course content delivery.</li> <li>• Utilize LMS functionalities to create, upload, and manage multimedia materials such as audio, video, and website links for enhanced learning experiences.</li> </ul>	<p>4.5 Create and upload the audio/video/website materials (weblink) in LMS</p> <p><b>Practical Activities</b></p> <ul style="list-style-type: none"> <li>• Create one Course/Class/Team using Moodle or Google Classroom or MS Team or similar tools</li> <li>• Enroll user/students in a specific course using Moodle or Google Classroom or MS Team or similar tools</li> <li>• Create, upload and assign to a PDF based text materials using Moodle or Google Classroom or MS Team or similar tools</li> <li>• Create, upload and assign to audio, video and web link materials using Moodle or Google Classroom or MS Team or similar tools</li> </ul>
<ul style="list-style-type: none"> <li>• Recall formative and summative assessments in online and blended learning.</li> <li>• Apply quizzes and assignments as assessment tools in online education.</li> <li>• Apply strategies for student engagement through chat and discussion.</li> <li>• Establish environment for communication and collaboration's role in online learning.</li> <li>• Evaluate feedback's importance and impact on learning outcomes.</li> </ul>	<p><b>UNIT V: Learning Activities and Evaluation students' performance (6T+ 6P)</b></p> <p>5.1 Formative and Summative Assessments in online/blended learning</p> <p>5.2 Assessment: Quiz and Assignments</p> <p>5.3 Student Engagement and Participation: Chat and Discussion Forum</p> <p>5.4 Communication and collaboration: Collaborative work, peer work and workshop</p> <p>5.5 Feedback and Reflection</p> <p><b>Practical Activities</b></p> <ul style="list-style-type: none"> <li>• Create a quiz and assign to student for self-evaluation using Moodle or Google Classroom or MS Team or similar tools</li> <li>• Create assignment with grid and assign to students using Moodle or Google Classroom or MS Team or similar tools</li> <li>• Create a discussion forum using Moodle or Google Classroom or MS Team or similar tools</li> <li>• Create a collaborative task or workshop using Moodle or Google Classroom or MS Team or similar tools.</li> <li>• Provide the feedback and reflection note on students activities as an online mode using Moodle or Google Classroom or MS Team or similar tools</li> </ul>

#### 4.0 Instructional Techniques

The instructional techniques for this course are divided into two groups. First group consists of general instructional techniques applicable to most of the units. The second group consists of specific instructional techniques applicable to particular units.

#### 4.1 General Instructional Techniques

Reading materials will be provided to students in each unit. Lecture preferably with the use of multi-media projector, demonstration, practical classes, discussion, and brain storming are used in all units.

#### 4.2 Specific Instructional Techniques

Demonstration is an essential instructional technique for all units in this course during teaching-learning process. Specifically, demonstration with practical works will be specific instructional technique in this course.

#### 5.0 Evaluation :

Internal Assessment	External Practical Exam/Viva	Semester Examination	Total Marks
40 Points	20 Points	40 Points	100 Points

*Note: Students must pass separately in internal assessment, external practical exam and semester examination.*

##### 5.1 Internal Evaluation (40 Points):

Internal evaluation will be conducted by subject teacher based on following criteria:

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|---|-----------|
| 1) Class Attendance   | 5 points  |
| 2) Learning activities and class performance                      | 5 points  |
| 3) First assignment (written assignment)                          | 10 points |
| 4) Second assignment (Case Study/project work with presentation ) | 10 points |
| 5) Terminal Examination   | 10 Points |

Total	40 points
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##### 5.2 Semester Examination (40 Points)

Examination Division, Dean office will conduct final examination at the end of semester.

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|---|-----------|
| 1) Objective question (Multiple choice 10 questions x 1 mark) | 10 Points |
| 2) Subjective answer questions (6 questions x 5 marks)        | 30 Points |

Total	40 points
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##### 5.3 External Practical Exam/Viva (20 Points):

Examination Division, Dean Office will conduct final practical examination at the end of semester.

##### 5.4 Practical Exam/Viva (20 Points)

Internal assessment (Record Book-4 points, Project work Presentation- 2, Internal Practical Test- 2 Points)	Semester final examination	Total
8 Points	12 Points	20 Points