DEPARTMENT OF TECHNOLGY EDUCATION,IER
UNIVERSITY OF THE PUNJAB, LAHORE-PAKISTAN
Course Outline

Programme	BS Technology Education	Course Code	BSTE316	Credit Hours	3
Course Title	**Instructional Technology and Materials Development**				

Course Introduction

The course on Instructional Technology and Materials Development provides an introduction to the tools, techniques, and principles used in the creation of effective instructional materials. It focuses on understanding the role of technology in education and the process of designing and developing various types of instructional materials.

Learning Outcomes

On the completion of the course, the students will:

1. Understand the fundamental concepts of instructional technology.
2. Identify and utilize various types of instructional materials.
3. Apply principles of instructional design to create effective learning materials.
4. Integrate technology into the teaching and learning process.
5. Develop and evaluate instructional materials for different educational contexts.

Course Content		Assignments/Readings
Week 1	**Introduction to Instructional Technology** **Unit 1.1**: Overview of Instructional Technology **Unit 1.2**: History and Evolution of Instructional Technology	Reflective essay on the role of technology in modern education
Week 2	**Types of Instructional Materials** **Unit 2.1**: Traditional Instructional Materials **Unit 2.2**: Digital Instructional Materials	Identify and describe various traditional instructional materials
Week 3	**Principles of Instructional Design** **Unit 3.1**: Basics of Instructional Design **Unit 3.2**: Applying Instructional Design Principles	Research and write a report on a popular instructional design model (e.g., ADDIE, ASSURE)
Week 4	**Developing Instructional Objectives** **Unit 4.1**: Writing Clear and Measurable Objectives **Unit 4.2**: Aligning Objectives with Assessments	Write instructional objectives for a given topic

Week 5	**Designing Instructional Materials** **Unit 5.1**: Principles of Effective Material Design **Unit 5.2**: Creating Visual Aids	Evaluate existing instructional materials and suggest improvements
Week 6	**Using Multimedia in Instruction** **Unit 6.1**: Benefits and Challenges of Multimedia **Unit 6.2**: Developing Multimedia Materials	Research and present on the use of multimedia in education
Week 7	**Integrating Technology in the Classroom** **Unit 7.1**: Tools for Technology Integration **Unit 7.2**: Strategies for Effective Integration	Identify and describe various tools for integrating technology in the classroom
Week 8	**Interactive and Online Learning Materials** **Unit 8.1**: Developing Interactive Materials **Unit 8.2**: Designing Online Courses	Create an interactive learning activity using a chosen tool
Week 9	**Evaluating Instructional Materials** **Unit 9.1**: Criteria for Evaluation **Unit 9.2**: Conducting Formative and Summative Evaluations	Develop a checklist for evaluating instructional materials
Week 10	**Accessibility in Instructional Materials** **Unit 10.1**: Understanding Accessibility **Unit 10.2**: Creating Accessible Materials	Research and write a report on accessibility standards in education
Week 11	**Collaborative Learning and Technology** **Unit 11.1**: Benefits of Collaborative Learning **Unit 11.2**: Tools for Collaboration	Research and present on collaborative learning techniques
Week 12	**Emerging Technologies in Education** **Unit 12.1**: Overview of Emerging Technologies **Unit 12.2**: Implementing Emerging Technologies	Research and present on an emerging technology in education (e.g., AR, VR, AI)
Week 13	**Ethics and Legal Issues in Instructional Technology** **Unit 13.1**: Understanding Ethical Considerations **Unit 13.2**: Legal Issues and Copyright	Write an essay on ethical issues in instructional technology
Week 14	**Project-Based Learning** **Unit 14.1**: Designing Project-Based Learning Activities	Develop a project-based learning activity for a specific topic

	Unit 14.2: Assessing Project-Based Learning	
Week 15	**Final Projects** **Unit 15.1**: Project Development and Planning **Unit 15.2**: Project Implementation	Develop a comprehensive project proposal for an instructional material
Week 16	**Course Review and Final Assessment** **Unit 16.1**: Review of Key Concepts and Themes **Unit 16.2**: Comprehensive Final Exam	Group presentation summarizing key learnings from the course

Textbooks and Reading Material

1. Textbooks.

   o Design for How People Learn by Julie Dirksen

2. Suggested Readings

   o The Systematic Design of Instruction by Walter Dick, Lou Carey, and James Carey

Teaching Learning Strategies

1. **Lectures:** To introduce and explain key concepts and theories.
2. **Hands-on Labs:** To provide practical experience with robotics components and programming.
3. **Group Discussions:** To facilitate peer learning and collaborative problem-solving.
4. **Guest Lectures:** To provide insights from industry experts and professionals.
5. **Assignments and Projects:** To reinforce learning and encourage application of concepts in real-world scenarios.

Assessment

Sr. No.	Elements	Weight age	Details
1.	Midterm Assessment	35%	Written Assessment at the mid-point of the semester.
2.	Formative Assessment	25%	Continuous assessment includes: Classroom participation, assignments, presentations, viva voce, attitude and behavior, hands-on-activities, short tests, projects, practical, reflections, readings, quizzes etc.

| 3. | Final Assessment | 40% | Written Examination at the end of the semester. It is mostly in the form of a test, but owing to the nature of the course the teacher may assess their students based on term paper, research proposal development, field work and report writing etc. |