

Common Course Outline
MULT 230
Educational Technology Process
3 Semester Hours

The Community College of Baltimore County

Description

Educational Technology Process

Applies the instructional design process to instructional situations; covers how to assess needs, analyze lesson content, identify and develop technology-based strategies which match learning situations/learning objectives, implement technology solution, and evaluate a lesson's effectiveness.

Prerequisite: MULT/CINS/CMSC 109 or consent of the instructor

Overall Course Objectives

Upon successfully completing the course students will be able to:

1. Apply the steps of the instructional design model to the production of interactive multimedia educational software.
2. Demonstrate how to apply appropriate technology to solve a curriculum materials problem.
3. Use effective learning strategies to match learning styles of diverse users.
4. Determine learning outcomes for web, network or CD-ROM based interactive educational software.
5. Implement appropriate user interface design to ensure accessibility for all students..

Major Topics

- I. Instructional design
 - A. Survey of models for instructional design
 - B. Instructional design for multimedia
 - C. Comparison of metaphors for learning
 1. Tutorials
 2. Drill and practice
 3. Games
 4. Simulations
- II. Case studies of educational software
 - A. Characteristics of successful projects
 - B. Shortcomings of unsuccessful projects
- III. Accommodating learning styles in multimedia educational software
 - A. Learning style assessment instruments
 - B. Learning styles of diverse students
 - C. Learning styles of challenged students
 - D. Learning at a distance vs in class support
 - E. Implementing learning strategies for a variety of learning styles.
- IV. Implementing user interfaces for educational multimedia software
 - A. State of the art in human computer interface design
 - B. Providing for adaptive devices in developing educational multimedia software
- V. Assessing learning outcomes in educational multimedia software

- A. Testing strategies for multimedia
- B. Alternative methods for assessment using multimedia
- VI. Developing educational multimedia software
 - A. Challenges of cross-platform development
 - B. Project development models and tools

Course Requirements

Grading: Grading procedures will be determined by the individual faculty member, will be provided the first week of class, and will include the following:

1. At least one Project that is an interactive multimedia learning cross platform project as a result of collaborative learning and group development.
2. At least one Writing Assignment. Students must demonstrate their ability to write in clear, grammatically correct sentences.
3. At least one Test, Exam, and/or Quiz: Individual faculty will notify students of the testing procedures to be used.
4. Comprehensive Final Exam: The course will include a comprehensive final exam, which may include a final project.
5. Final Grades: Grades will be determined by individual faculty members.

Individual faculty members may include additional course objectives, major topics, and other course requirements to the minimum expectations stated in the Common Course Outline.

The Community College of Baltimore County is committed to providing a high-quality learning experience that results in growth in knowledge, attitudes, and skills necessary to function successfully as a transfer student, in a career and as a citizen. To accomplish this goal, we maintain high academic standards and expect students to accept responsibility for their individual growth by attending classes, completing all homework and other assignments, participating in class activities and preparing for tests.

We take seriously our responsibility to maintain high-quality programs and will periodically ask you to participate in assessment activities to determine whether our students are attaining the knowledge, attitudes and skills appropriate to various courses and programs. The assessment activities may take many different forms such as surveys, standardized or faculty-developed tests, discussion groups or portfolio evaluations. We ask that you take these activities seriously so that we can obtain valid data to use for the continuous improvements of CCBC's course and programs.