

Certificate CIS - Multimedia & Web Tech - Development Track McLENNAN COMMUNITY COLLEGE

2022-2023

Degree Description

This program prepares students for the diverse and exciting world of digital media manipulation and production. Curriculum exposes students to various types of digital media including digital imaging and graphics, audio and video production, 2D and 3D animation, Web technologies, and desktop publishing. This program consists of a two-year A.A.S. in Multimedia & Web Technology as well as certificates in Multimedia & Web Technology/Development Track and Design Track. It prepares students for careers in graphic design, website production and management, video production, animation, gaming, electronic journalism, communications, etc. The A.A.S. has two tracks, one that focuses on design concepts and the second that specializes in the technical aspect of running a media server."

Marketable Skills

* Understand and apply computing terminology and concepts used in the workplace- Critical Thinking/ Communication * Apply fundamentals of computer programming in structured design concepts- Critical Thinking/ Communication * Configure, use, and troubleshoot computer operating systems and/or application software Critical Thinking * Use the Internet to locate, transfer, research and publish information at a level appropriate for the academic and work environment. Critical Thinking/ Communication * Install and evaluate desktop and network security protocols and principles- Critical Thinking"

Summer-1 Session	Hours
BCIS 1305 Business Computer Applications	3 hours
IMED 1316 Web Design I	3 hours
ITSC 1305 Introduction to PC Operating Systems	3 hours
COSC 1336 Programming Fundamentals I	3 hours
	12 hours
Semester II	Hours
IMED 2315 Web Design II	3 hours
ITSE 1311 Beginning Web Programming	3 hours
ITSE 2309 Database Programming	3 hours
COSC 1337 Programming Fundamentals II	3 hours
	12 hours
Semester III	Hours
IMED 2309 Internet Commerce ¹	3 hours
ITNW 1354 Implementing and Support Servers	3 hours

Total hours: 30 hours

3 hours 6 hours

¹ This course is designed as a Capstone course and will integrate knowledge and skills from previous courses. This course should be taken in the student's last Fall or Spring semester before graduation.

Course Descriptions

BCIS 1305 Business Computer Applications

Introduces and develops foundational skills in applying essential and emerging business productivity information technology tools. The focus of this course is on business productivity software applications, including word processing, spreadsheets, databases, presentation graphics, data analytics, and business-oriented utilization of the internet. (BCIS 1305 is included in the Business Field of Study.) Semester Hours 3 (2 lec/2 lab)

IMED 1316 Web Design I

Introduces Internet Web page design and related graphic design issues, including mark-up languages, websites, Internet access software, and interactive topics. Students should be proficient with Windows functions, mousing and keyboarding skills. Semester Hours 3 (2 lec/2 lab)

ITSC 1305 Introduction to PC Operating Systems

Introduction to personal computer operating systems, including installation, configuration, file management, memory and storage management, control of peripheral devices and use of utilities. Semester Hours 3 (2 lec/2 lab)

COSC 1336 Programming Fundamentals I

Introduces the fundamental concepts of structured programming and provides a comprehensive introduction to programming for computer science and technology majors. Topics include software development methodology, data types, control structures, functions, arrays, and the mechanics of running, testing and debugging. This course assumes computer literacy. Semester Hours 3 (3 lec)

IMED 2315 Web Design II

Studies current mark-up languages and layout techniques for creating engaging, well-designed Web pages; identify the target audience and produce websites according to accessibility standards, cultural appearance, and legal issues. Emphasis placed on use of Cascading Style Sheets (CSS) and XML. Students will work on a website with at least one assigned client from the community. Prerequisites: Successful completion of IMED 1316 or equivalent introductory Web design course with instructor consent; knowledge of CSS and division tags important. Semester Hours 3 (2 lec/2 lab)

ITSE 1311 Beginning Web Programming

Skill development in Web page programming, including mark-up and scripting languages. Semester Hours 3 (2 lec/2 lab)

ITSE 2309 Database Programming

Covers database development using database programming techniques emphasizing database structures, modeling, and database access. Semester Hours 3 (2 lec/2 lab)

COSC 1337 Programming Fundamentals II

This course focuses on the object-oriented programming paradigm, emphasizing the definition and use of classes along with fundamentals of object-oriented design. The course includes basic analysis of algorithms, searching and sorting techniques, and an introduction to software engineering processes. Students will apply techniques for testing and debugging software. Prerequisite: COSC 1336. Semester Hours 3 (3 lec)

IMED 2309 Internet Commerce

Gives an overview of the Internet as a marketing and sales tool with emphasis on developing a prototype for electronic commerce. Topics include database technology, creating websites in order to collect information, performing online transactions, and generating dynamic content. Prerequisites: COSC 1301 or BCIS 1305 or equivalent intro to computer course with consent of instructor; basic Web design skills suggested. Semester Hours 3 (2 lec/2 lab)

ITNW 1354 Implementing and Support Servers

Develops skills necessary to implement, administer, and troubleshoot information systems that incorporate servers in a networked computing environment using Microsoft Windowsbased servers. Students will learn to configure peripherals and devices; set up servers for various client computers; configure directory replication; and manage licensing, user groups accounts, user profiles, system policies, and profiles. Students will also learn to administer remote servers and disk resources, create and share resources, implement permissions and security, implement fault-tolerance data storage measures and configure servers for interoperability with various network operating systems servers. Course will teach how to install and configure Remote Access Service (RAS), identify and monitor performance bottlenecks, and resolve configuration problems. Prerequisite: ITSC 1305. Semester Hours 3 (2 lec/2 lab)