

# COMPUTER INFO TECHNOLOGY (CITPT)

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## **CITPT-101 INTRODUCTION TO WEB DESIGN & DEVELOPMENT 3 Credits**

A contemporary and comprehensive introduction to web design/development technologies and subjects.

## **CITPT-108 INTRODUCTION TO COMPUTER SCIENCE 3 Credits**

This course is an introduction to the basic concepts of Computer Science. You will learn how to program a computer using the Java language, the basic capabilities of a computer system, how to form and validate a hypothesis in computer science, and how computer science relates to other scientific endeavors and society at large. Programming concepts include objects, functions, conditionals, and recursion. This course is suitable both for the non-major and as an entry point into the Computer Science major. Cross-listed with CS-108.

## **CITPT-111 WEB DEVELOPMENT BASICS 3 Credits**

Provides a foundation in web development and design through a comprehensive study and hands-on application of contemporary Hyper Text Markup Language (HTML) and Cascading Style Sheets (CSS).

## **CITPT-112 FUNDAMENTALS OF COMPUTER PROGRAMMING 3 Credits**

This course is an introduction to computer programming using contemporary programming logic methods and design practices. The focus of the course is to provide students with a strong foundation in programming principles. Fundamental topics include logic, expressions, operators, I/O, control and conditional structures, data types, containers, functions, programming errors, and events. Students will engage in hands-on programming development using JavaScript and command line interfaces in preparation for dependent courses in this degree program. Prerequisite: CITPT-111 or CITPT-311.

## **CITPT-117 WEB DESIGN FUNDAMENTALS 3 Credits**

An introduction to design theory in websites and the use of industry development tools. Students will learn and apply standards related to site specifications, layout, navigation, organization, color, typography, and content development. Students will focus on the importance of a user-centered design that meets the expectations of a client or customer.

## **CITPT-144 MULTIMEDIA WEB APPLICATIONS 3 Credits**

Explores contemporary instances of web application software designed to enhance websites with more dynamic content. This class has a hands-on approach and students will be expected to work through activities step-by-step and then take the basic competencies to create more advanced, original web application content. Cross-listed with CITPT-344.

## **CITPT-150 APPLICATIONS IN ELECTRONIC COMMERCE 3 Credits**

This course is a thorough study and application of best practices of Electronic Commerce in a real-world setting, including the development and planning of an online store and an advertising campaign that utilizes social media platforms for promotion. Students demonstrate the installation and setup of an online store by developing a website proposal document, creating a business plan, controlling inventory systems, setting up payment information, and presenting their work. Students also create a social media plan for advertising the store by creating a strategy document, a calendar of media and web events, and a business presentation.

## **CITPT-175 INTERACTIVE WEB SCRIPTING 3 Credits**

Course provides a comprehensive overview of client-side scripting technologies and methods. Pre-requisites: CITPT-111 and CITPT-112.

## **CITPT-180 PORTFOLIO DESIGN 3 Credits**

This course provides students with an opportunity to prepare themselves for the workplace. Students will prepare a portfolio comprised of completed web design and development projects. Lesson topics include portfolio research, logo creation, site specifications, project timelines, peer review and feedback, and call-to-action interactions. Successful students will finish a portfolio and will be capable of scaling it for future development and projects. Prerequisite: CITPT-111 or CITPT-311.

## **CITPT-189 DIRECTED WEB AUTHORING PROJECT 1-3 Credits**

Requires field experience on a team-based, organizational website project.

## **CITPT-190 DIRECTED STUDY IN COMPUTER INFORMATION TECHNOLOGY 1-6 Credits**

## **CITPT-191 WORKSHOPS IN COMPUTER INFORMATION TECHNOLOGY 1-6 Credits**

## **CITPT-192 SPECIAL TOPICS IN COMPUTER INFORMATION TECHNOLOGY 1-6 Credits**

## **CITPT-194 INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY 1-12 Credits**

## **CITPT-194A INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY I 1-6 Credits**

Internship in Computer Information Technology.

## **CITPT-194B INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY II 1-6 Credits**

Internship in Computer Information Technology.

## **CITPT-194C INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY III 1-6 Credits**

Internship in Computer Information Technology.

## **CITPT-194D INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY IV 1-6 Credits**

Internship in Computer Information Technology.

**CITPT-206 INTERACTIVE MEDIA PROGRAMMING 3 Credits**

This course offers an in-depth approach to creating and debugging applications and techniques of implementation for web and game applications. Topics include classes and objects, inheritance, polymorphism, namespaces, assemblies, exception handling, debugging, data collections, and event-driven programming. Emphasis is on software design and development of real-world applications. Students in the Web Design & Development program are encouraged to take CITPT-112 prior to enrolling in this course.

**CITPT-213 WEB DATABASE TECHNOLOGIES 3 Credits**

Expands basic database skills into the web environment and enterprise level applications. This course covers database design theory and advanced database application topics in contemporary, multi-user environments. Pre-requisite: CITPT-112.

**CITPT-217 ADVANCED WEB DESIGN 3 Credits**

A comprehensive study of various web design concepts and skills. Students will learn and apply concepts in a project-based manner. Special emphasis will be placed on learning and applying advanced web design techniques on real-world projects. Pre-requisite: CITPT-117 or CITPT-317.

**CITPT-225 WEB FRAMEWORKS 3 Credits**

A skill-based study of popular server-side web application frameworks. Students will learn how to build interactive and dynamic web site components. Pre-requisite: CITPT-112.

**CITPT-226 SQL: STRUCTURED QUERY LANGUAGE 3 Credits**

Introduces the basic concepts of relational database systems and the role of the Structured Query Language (SQL) in database development. It also covers SQL and its applications to the creation and maintenance of data in a Database Management System (DBMS). Emphasis is placed on using SQL for database querying. Equated to CS-226. Pre-requisite: Completion of MATH-023 or MATH-025 or higher, excluding MTHPT-103P, MATH-153P and MATH-157P, or have satisfactory math placement scores.

**CITPT-227 WEB APPLICATION DEVELOPMENT 3 Credits**

A hands-on study of web development for dynamic, data-driven web applications using contemporary technologies and development software. Pre-requisite: CITPT-112.

**CITPT-265 IMAGE EDITING AND ILLUSTRATION 3 Credits**

Comprehensive experience in image editing, drawing, painting, and typography.

**CITPT-275 WEB AUTHORING SYSTEMS 3 Credits**

A comprehensive study in web content management systems and when/how to use them properly. Topics include CMS installation and maintenance, website management, theme design, and extension development. Pre-requisites: CITPT-111 or CITPT-311.

**CITPT-280 WEB DEVELOPMENT CAPSTONE 3 Credits**

The web development capstone course provides web design and development students with the opportunity to integrate knowledge gained across the curriculum. Students will develop personal portfolios, data-driven web or mobile applications, and work in teams to apply knowledge to real-world situations. Students will work to identify client needs, develop a project proposal and specification, and implement the proposed specification. Lecture topics include web hosting setup, website optimization, accessibility, and user experience. Pre-requisite: CITPT-117 or CITPT-317 and CITPT-175 or CITPT-375.

**CITPT-290 DIRECTED STUDY IN COMPUTER INFORMATION TECHNOLOGY 1-6 Credits**

**CITPT-291 WORKSHOP IN COMPUTER INFORMATION TECHNOLOGY 1-6 Credits**

**CITPT-292 SPECIAL TOPICS IN COMPUTER INFORMATION TECHNOLOGY 1-6 Credits**

**CITPT-294 INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY 1-12 Credits**

**CITPT-294A INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY I 1-6 Credits**

Internship in Computer Information Technology.

**CITPT-294B INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY II 1-6 Credits**

Internship in Computer Information Technology.

**CITPT-294C INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY III 1-6 Credits**

Internship in Computer Information Technology.

**CITPT-294D INTERNSHIP IN COMPUTER INFORMATION TECHNOLOGY IV 1-6 Credits**

Internship in Computer Information Technology.