

Information Technology Program

Course Descriptions

INFOTC 1000 Introduction to Information Technology

Introduction to Information Technology introduces the field of Information Technology including foundation experiences and knowledge, the history of digital technologies, emphasis areas in the program, career opportunities, and ethical/social issues. Students participate in activities that introduce students to digital media, digital systems, and software engineering. Students learn to use distributed version control systems and how to work on collaborative teams.

Credits: 3

Prerequisites: None

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 2040 Programming Languages and Paradigms

This course presents programming principles and their syntactical representation and implementation across languages including those that are compiled and interpreted. The course shows how to implement algorithms and data structures to solve problems while utilizing paradigms offered by the programming languages such as procedural, object-oriented, protocol-oriented, functional, and declarative. Language support for strong and weak typing and type safety are covered along with support for optional values. This course provides experience in developing algorithms and determining their efficiency, designing application architecture, and developing applications. Building and using libraries/application programming interfaces is covered. Git and GitHub are used for code versioning and collaboration. Integrated development environments (IDEs) are used for managing, building, debugging, and testing applications.

Credits: 3

Prerequisites: INFOTC 1040 Introduction to Problem Solving and Programming, CMP_SC 1050 Algorithm Design and Programming I, OR prior experience with programming and consent of instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 2600 Digital Systems

Re: This is a course change. The title and topics of the course are being changed to more broadly cover digital concepts and topics related to digital systems rather than being specific to multimedia.

This course provides a foundation of knowledge of digital systems including terminology, concepts, architecture, processes, tools, hardware, and software.

Credits: 3

Prerequisites: None

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 3600 User Experience Design 1

This course is a first in a series that focuses on User Experience (UX) Design for software applications. This course introduces the beginner to processes, techniques and methods of evaluation to design, model, and evaluate application designs and user interfaces.

Credits: 3

Prerequisites: None

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4405 iOS App Development 1

Re: This is a course change. The title of the course is being changed to reflect that it is part of three course series.

This is a first in a series of courses on developing iOS applications using Xcode and the Swift programming language on the macOS platform.

Credits: 3

Prerequisites: INFOTC 1040 Introduction to Problem Solving and Programming, CMP_SC 1050 Algorithm Design and Programming I, OR prior experience with programming and consent of instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4410 Android App Development 1

This is a first in a series of courses on developing Android applications using Android Studio and the Java and Kotlin programming languages.

Credits: 3

Prerequisites: INFOTC 1040 Introduction to Problem Solving and Programming, CMP_SC 1050 Algorithm Design and Programming I, OR prior experience with programming and consent of instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4420 Android App Development 2

This is a second in a series of courses on developing Android applications using Android Studio and the Java and Kotlin programming languages. This course covers intermediate-level topics in application design, more complex UI implementations, and data persistence.

Credits: 3

Prerequisites: INFOTC 4410 Android App Development 1 or permission of the instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4425 iOS App Development 2

This is the second in a series of courses on developing iOS applications using Xcode and the Swift programming language on the macOS platform. This course covers intermediate-level topics in application design, more complex UI implementations, and data persistence.

Credits: 3

Prerequisites: INFOTC 4405 iOS App Development 1 or INFOTC 4500 Team-Based Mobile Device Application Development or permission of the instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4440 Android App Development 3

This is a third in a series of courses on developing Android applications using Android Studio and the Java and Kotlin programming languages. This course covers advanced topics in application architecture, application design, data persistence, and client-server architecture.

Credits: 3

Prerequisites: INFOTC 4420 Android App Development 2 or permission of the instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4445 iOS App Development 3

This is the third in a series of courses on developing iOS applications using Xcode and the Swift programming language on the macOS platform. This course covers advanced topics in application architecture, application design, data persistence, and client-server architecture.

Credits: 3

Prerequisites: INFOTC 4425 iOS App Development 2 or permission of the instructor.

Note: Should not be restricted to Information Technology majors during early registration.

INFOTC 4600 User Experience Design 2

This course is a second in a series that focuses on User Experience (UX) Design for software applications. This course further develops the processes, techniques and methods of evaluation to design, model, and evaluate application designs and user interfaces.

Credits: 3

Prerequisites: INFOTC 3600 User Experience Design 1

Note: Should not be restricted to Information Technology majors during early registration.