SWIFT PROGRAMMING - ACADEMIC CERTIFICATE (AC)

NOTE: This program is no longer accepting any new students and will be discontinued in Fall 2024. Current students majoring in the program will be contacted individually by their advisor regarding a teach-out option that will allow them to complete their requirements. Related learning opportunities are available through CWI's Onramp program**.**

Certificate Quick Facts

- **Instructional School:** Science, Technology, and Math
- **Department:** Computer Science and Information Technology
- **Program Code:** SWFT.AC
- **Program Type:** Academic Transfer
- **Available Fully Online:** No
- **Eligible for Federal Financial Aid:** No

NOTE: Courses required for this program *may* have an additional fee; more information can be found on the Special Course Fees web page.

Certificate Requirements

Course	Course Title	Min Credits
Major Requirements		
CPSC 110	Programming Fundamentals	3
CPSC 131	Swift App Development I	3
CPSC 151	Swift App Development II	3
CPSC 171	Swift App Development: Augmented Reality	3
Minimum Credit Hours Required		**12**

NOTE: This certificate is <u>not</u> eligible for federal financial aid due to program length.

Certificate Plan: Fall Start

The course sequence listed below is strongly recommended in order to complete your program requirements. Please register for each semester as shown using the Student Planning tool in myCWI. Plans may be modified to fit the needs of part-time students by adding additional semesters. Consult your advisor for any questions regarding this course sequence plan.

First Year

Fall		Credit Hours
CPSC 110	Programming Fundamentals	3
	Total Semester Credit Hours	**3**

Spring		
CPSC 131	Swift App Development I	3
	Total Semester Credit Hours	**3**

Second Year

Fall		
CPSC 151	Swift App Development II	3
	Total Semester Credit Hours	**3**

Spring		
CPSC 171	Swift App Development: Augmented Reality	3
	Total Semester Credit Hours	**3**
	Minimum Credit Hours Required	**12**

NOTE: This certificate is <u>not</u> eligible for federal financial aid due to program length.

Program Learning Outcomes

Upon successful completion of this program, students will be able to:

- Develop an understanding of object-oriented principles and design.
- Develop skills to work collaboratively on application design.
- Apply knowledge of the Integrated Development Environment (IDE) to develop and deploy working code.
- Examine the use of variables, constants, and literals in arithmetic expressions.
- Design and develop an application Graphical User Interface (GUI).
- Describe different types of views within Swift and how to use scroll, table and collection views.
- Demonstrate interactions between controls and views within the Model-View-Controller (MVC) architecture.
- Describe the concurrency model of an iOS app.
- Develop a new augmented reality-based project using ARKit.
- Develop scenes and scene objects within an augmented environment.
- Examine and analyze image detection and scaling.
- Perform simple animations.