

# CITY - COMPUTER PROGRAMMING - CERTIFICATE OF ACHIEVEMENT

## **PROPOSAL INFORMATION**

**Action Proposed:**Program Revision

**Proposal Originator:**Theresa Savarese

**Origination**

**Date:**11/15/2019

**Proposed Start:**Fall 2021

### **Need for Proposal:**

Add CISC 183 and CISC 193 to courses required for the major. Revise program and award description.

### **Attached Documents:**

[Narrative \(12.11.19\)](#)

[SDCCD LMI Form](#)

[CCCOI LMI - Centers of Excellence Analysis](#)

[CA LMI - Occ Profile SOC15-1132](#)

[CA LMI - Occ Profile SOC15-1131](#)

[CA LMI - Occ Profile SOC15-1121](#)

[CA LMI - Occ Profile SOC15-1133](#)

[CA LMI - Occ Profile SOC15-1134](#)

## **PROGRAM & AWARD INFORMATION**

### **Award Description:**

This award prepares students for entry-level employment in the field of information technology (IT). It is designed to provide students with training in the theory and practice of computer programming emphasizing business and computer applications. Students receive hands-on experience in the fundamentals of structured- and object-oriented analysis, design, and implementation of popular computer programming languages, such as Python, C++, and Java.

### **Program Description:**

The expanding field of information technology (IT) is comprised of various facets, including network administration, design, telecommunications, computer support, computer science, software programming and system analyses. Almost every company's business strategy relies on the use of information systems in order to succeed and grow into the future. For this reason, San Diego City College's Computer Information Systems Program offers a bridge between business, computer science, and information technology.

The Computer Information Systems program offers transfer and certification programs in the information system and information technology fields. These programs include computer literacy; application, web, and database programming; database administration; and a variety of vendor specific and vendor neutral industry-standard certification training. The roles of the various information system professionals are to design, implement, operate, and maintain a computer information system. These professionals also provide services in the networking areas such as systems engineers, systems administrators, and network specialists.

Graduates of the program have an applied knowledge of fields such as web programming, system infrastructure, databases, networking, e-business, project management, data center management, security, and information assurance.

### **Program Goals:**

N/A - this section is no longer updated via Curricunet.

### **Program Emphasis:**

**Career Options:**

Some careers in computer programming require education beyond the associate degree. Careers in computer programming include: junior programmer, senior programmer, software developer, quality analyst, game programmer, software developer engineer, C++ analyst, backend developer, embedded engineer, and database developer.

The Computer Information Systems Department requires students to complete all course requirements for the certificate within five years.

<b><u>COURSES REQUIRED FOR THE MAJOR:</u></b>		<b><u>UNITS</u></b>
CISC 179	Python Programming *Active*	4
CISC 183	Web Development with Ruby on Rails *Active*	4
or CISC 193	Microsoft C# Software Engineering 1 *Active*	4
CISC 187	Data Structures in C++ *Active*	4
CISC 190	Java Programming *Active*	4
CISC 192	C/C++ Programming *Active*	4
CISC 201	Advanced C++ Programming *Active*	4
CISC 205	Object Oriented Programming using C++ *Active*	4
<b>Total Units</b>		<b>28</b>

**DATES & CODES****CIC Approval:** 05/14/2020**Board Approval:** 06/11/2020**State Approval:****TOP Code:** 0707.10**State Approval (Unique) Code:**

Subject Area: Computer and Information Sciences

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