

# **Computer Programming Certificate**

This program roadmap represents one possible pathway to complete the program. *Please see a counselor* to create an education plan that is customized to meet your needs. This roadmap is not a guarantee of course availability or financial aid applicability. For counseling appointments call 916.608.6510.

Total Units: 21

# **First Year**

### Semester 1 6 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
CISC 310 Introduction to Computer Information Science	3		F, S
CISP 300 Algorithm Design/Problem Solving	3		

### Semester 2 4 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
CISP 360 Introduction to Structured Programming or	4	CISP 300	F, S
CISP 370 Beginning Visual Basic	4	CISP 300	F, S

# **Second Year**

#### Semester 3 4 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
CISP 400 Object Oriented Programming with C++ or	4	CISP 360	F, S
CISP 401 Object Oriented Programming with Java or	4	CISP 360	F, S
CISP 405 Object Oriented Programming using C# on Visual Studio .NET or	4	CISP 360	
CISP 407 Programming in Python	4	CISP 360	F, S

### Semester 4 7 Units

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
CISP 430 Data Structures	4	CISP 400	F, S

#### Notes

The Computer Programming
 Certificate provides students with
 the basic proficiencies required of
 entry level software technicians and
 computer programmers, or for
 further study in computer science.

## Zero Textbook Costs (ZTC):

The Zero Textbook Costs designation and logo are added to any course that provides free access to all required instructional materials. These are typically shared with students through Canvas. Courses that are designated as ZTC may still require students to purchase supplemental materials such as lab coats, a calculator, art supplies, etc. See full definitions and searching tips on the Zero Textbook Costs page of the college website.

COURSE	UNITS	PRE-REQS^	SEMESTERS OFFERED*
CISP 440 Discrete Structures for Computer Science	3	CISP 360	F, S

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