



Computer Programming and Web Development Career

Program Goals Statement

Students will be prepared for entry-level programming in business and industry including the option of focusing on web development. They will develop the skills to analyze problems and develop computerized solutions using multiple programming and/or web development options. They will develop the knowledge to work with data analysis and develop and maintain effective programs and/or websites.

Program information

- Students have access to outstanding state-of-the-art technology and learn from faculty in touch with the needs of industry, both locally and nationally. Courses are constantly evolving to reflect current trends.
- Transfer credit for any Computer Information Systems (CIS or CIT) course must be approved by the CI Department Chair or by a full-time CI faculty member.
- This concentration can be taken online.

After BCC

- Programming Track: Recent graduates have successfully started their own businesses or gone to work as programmers, programmer analysts, systems administrators, systems analysts, software developers, technicians, and consultants.
- Web Track: Students graduating from this track will be prepared to develop and maintain web sites. Students either join a web development firm or do consulting.

Infused General Education Competencies

Technical Literacy, First Year Experience

Subject: Computer Information Systems

Type: Associate Degree

Campus

Campus:

Fall River

Item #

Title

Credits



General Courses

Item #	Title	Credits
BUS 115	Fundamentals of an Enterprise	1
ENG 101	Composition I: College Writing	3
ENG 102	Composition II: Writing about Literature	3
	Science Elective	3-4

Choose one of the following History Electives

Item #	Title	Credits
HST 111	The West and the World I	3
HST 112	The West and the World II	3
HST 113	United States History to 1877	3
HST 114	United States History from 1877	3
HST 115	Twentieth Century Social History-1919 to the Present	3
HST 116	American Foreign Policy-1898 to the Present	3

Choose one of the following Communication Electives

Item #	Title	Credits
COM 101	Fundamentals of Public Speaking	3
COM 114	Professional Speaking	3

Choose one of the following Math Electives

Item #	Title	Credits
MTH 131	Elements of College Mathematics	3
MTH 172	Precalculus with Trigonometry	4

General Education Elective Courses

Choose courses from Transfer Electives and Elective Recommendations (p.)

Item #	Title	Credits
	Ethical Dimensions Elective	0-3
	Global Awareness Elective	3
	Multicultural Perspective Elective	3
	Social Phenomenon Elective	3



Program Courses

Item #	Title	Credits
CIS 105	Hardware Fundamentals	1
CIS 120	Programming: Logic, Design and Implementation	3
CIS 121	Operating Systems	3
CIS 150	Oracle and SQL	3
CIS 272	Program Development Seminar	3
CIT 102	Security Awareness	1

Programming Track - Language Sequence Electives - Choose two of the following sequences

Note: Programming students cannot take CIS 155/CIS 255 and CIS 157/CIS 247 as their two sequences and cannot take CIS 159/CIS 258 and CIS 122/CIS 250 as their two sequences.

Item #	Title	Credits
CIS 155	Introduction to C++ Programming	3
CIS 255	C++ Object Oriented Programming	3
CIS 156	Visual Basic	3
CIS 256	Advanced Visual Basic	3
CIS 157	Object-Oriented JAVA Programming I	4
CIS 257	Object-Oriented JAVA Programming II	4
CIS 159	MySQL and PHP	3
CIS 258	Advanced Interactive Programming	3
CIS 122	Internet Developer	3
CIS 250	Interactive Websites	3



Programming Track CIS/CIT Electives - Choose five

Note: CIT 143 and/or CIT 242 cannot be taken if C++ courses CIS 155 and/or CIS 255 have been taken.

Item #	Title	Credits
CIS 122	Internet Developer	3
CIS 123	Object-Oriented Concepts	3
CIS 131	Windows Server Administration I	3
CIS 132	Introduction to UNIX/Linux and Shell Programming	3
CIS 148	Programming in C#	3
CIS 155	Introduction to C++ Programming	3
CIS 156	Visual Basic	3
CIS 157	Object-Oriented JAVA Programming I	4
CIS 159	MySQL and PHP	3
CIS 250	Interactive Websites	3
CIS 255	C++ Object Oriented Programming	3
CIS 256	Advanced Visual Basic	3
CIS 257	Object-Oriented JAVA Programming II	4
CIS 258	Advanced Interactive Programming	3
CIT 136	Web Development for Mobile Devices	3
CIT 143	Programming for Game Developers I	3
CIT 242	Programming for Game Developers II	3
CIS 153	Python	3

Web Track - Language Sequence

Item #	Title	Credits
CIS 159	MySQL and PHP	3
CIS 258	Advanced Interactive Programming	3
CIS 122	Internet Developer	3
CIS 250	Interactive Websites	3
CIT 131	Business Creativity	3



Web Track CIS/CIT Electives - Choose three

Item #	Title	Credits
CIS 123	Object-Oriented Concepts	3
CIS 128	Introduction to Digital Audio Recording	3
CIS 131	Windows Server Administration I	3
CIS 132	Introduction to UNIX/Linux and Shell Programming	3
CIS 148	Programming in C#	3
CIS 155	Introduction to C++ Programming	3
CIS 156	Visual Basic	3
CIS 157	Object-Oriented JAVA Programming I	4
CIS 162	Applications for Web Development	3
CIS 255	C++ Object Oriented Programming	3
CIS 257	Object-Oriented JAVA Programming II	4
CIT 134	Social Media and the Web	3
CIT 136	Web Development for Mobile Devices	3
CIT 143	Programming for Game Developers I	3
CIT 242	Programming for Game Developers II	3
CIS 153	Python	3

Recommended Course Sequence - Semester 1

Item #	Title	Credits
CIS 120	Programming: Logic, Design and Implementation	3
CIS 121	Operating Systems	3
ENG 101	Composition I: College Writing	3

Programming Track

Item #	Title	Credits
CIS 122	Internet Developer	3

Recommended Course Sequence - Semester 2

Item #	Title	Credits
ENG 102	Composition II: Writing about Literature	3
COM 101	Fundamentals of Public Speaking	3
COM 114	Professional Speaking	3



Programming Track

Item #	Title	Credits
	Two Language Sequence Electives (1st in sequence)	6
	CIS/CIT Elective	3

Web Track

Item #	Title	Credits
CIS 159	MySQL and PHP	3
CIS 250	Interactive Websites	3
CIT 131	Business Creativity	3

Recommended Course Sequence - Semester 3

Item #	Title	Credits
CIS 150	Oracle and SQL	3
	History Elective	3

Programming Track

Item #	Title	Credits
	Two Language Sequence Electives (1st in sequence)	6
	CIS/CIT Elective	3

Web Track

Item #	Title	Credits
CIS 132	Introduction to UNIX/Linux and Shell Programming	3
CIS 258	Advanced Interactive Programming	3

Recommended Course Sequence - Semester 4

Students may not get credit for both CIT 143 and CIS 155 or for both CIT 242 and CIS 255

Item #	Title	Credits
CIS 272	Program Development Seminar	3
	CIS/CIT Elective	3
	CIS/CIT Elective	3
	Science Elective	3-4
	Social Phenomenon Elective	3



Total credits:

63-66