FITCHBURG STATE UNIVERSITY

Computer Information Systems: Cybersecurity B.S. (Bachelor of Science)

FRESHMAN YEAR

Fall Semester   16 Credits

ENGL 1100	Writing I	(3)
CSC 1400	Computer Information Systems	(3)
MATH 1250	Introduction to Functions (if needed)	(3)
	LA&S Elective (HIST)	(3)
	LA&S Elective (LAB)	(4)

Spring Semester   15 Credits

ENGL 1200	Writing II	(3)
CSC 1000	Introduction to Programming	(3)
CSC 1900	Discrete Mathematics	(3)
ECON 1100	Macroeconomics	(3)
	LA&S Elective (HAF)	(3)

SOPHOMORE YEAR

Fall Semester   15 Credits

BSAD 2010	Introduction to Financial Reporting	(3)
ECON 1200	Microeconomics	(3)
MATH 1800	Business Statistics	(3)
CSC 1500	Computer Science I	(3)
	LA&S Elective (LIT)	(3)

Spring Semester   15 Credits

BSAD 2020	Introduction to Managerial Accounting	(3)
SPCH 1000	Introduction to Speech Communication	(3)
MATH 2200	Business Calculus	(3)
CSC 1550	Computer Science II	(3)
	LA&S Elective (HMN)	(3)

JUNIOR YEAR

Fall Semester   15 Credits

BSAD 3200	Principles of Management	(3)
CSC 2560	Systems Programming	(3)
CSC 3400	Data Communications and Networking	(3)
CSC 3040	Cybersecurity Management	(3)
	Advanced LA&S Elective	(3)

Spring Semester   15 Credits

BSAD 3400	Basic Finance	(3)
CSC 2700	Business Programming	(3)
CSC 3450	Local Area Networks	(3)
CSC 3011	Data Modeling and Database Design	(3)
CSC/BSAD/CJ 4005	Ethical Hacking	(3)

SENIOR YEAR

Fall Semester   15 Credits

CSC 3710	Systems Analysis Methods	(3)
CSC 4350	Network Security	(3)
	LA&S Elective (AOM)	(3)
	Advanced LA&S Elective	(3)
	Free Elective	(3)

Spring Semester   14 Credits

CSC 4700	Systems Design and Implementation	(3)
CSC 4102	Ethical Issues in Computer Science	(1)
	Advanced LA&S Elective	(3)
	Advanced LA&S Elective	(3)
	Free Elective	(4)

LA&S Elective List

1 AOM attribute *(Art or Music)*

3 credits HAF attribute *(Health/Fitness)*

1 HIST subject *(History)*

1 HMN attribute *(Human Behavior)*

1 LAB attribute *(Lab Science)*

1 LIT attribute *(Literature)*

Advanced LA&S Options Area

Review the three options with your advisor and submit your decision to the Registrar's Office by completion of 60 credits.

Global Diversity Area

Two courses taken must meet the Global Diversity requirement: GDAN course + (GDC or GDCN course) OR GDCN course + (GDA or GDAN course). These courses are allowed to satisfy this requirement and another requirement at the same time.

Suggested Computer Science Electives:

Fall Semester
CSC 3050   *Web Programming*
CSC 3008   *Internet of Things*
CSC 4940   *Internship: Computer Science*

Spring Semester
CSC 3004   *Parallel Programming*
CSC 3560   *Mobile App Development*
CSC 4940   *Internship: Computer Science*

Completion of 120 credits required for graduation.

Business Administration Minor candidates must complete BSAD 3300 Fundamentals of Marketing and BSAD 3500 Business Law I in addition to the four BSAD courses above.

Rev. 10-2019

What makes us unique?

ABET accredited since 2006! ABET is the recognized United States accreditor of college and university programs in applied and natural science, computing, engineering, and engineering technology.

ABET Computing Accreditation Commission

This means:

- Our programs are reviewed regularly according to a national education standard
- We continuously assess our program and improve our curriculum to provide current and relevant instruction to meet student needs.

Facilities

The students in the Computer Science Department have access to state-of-the-art multimedia classrooms and lecture/labs.

In addition, the department offers:

- Access to required software through special educational software licenses from Microsoft, and other prominent software vendors.
- High speed Internet connections between computer labs and departmental network using the latest technologies.
- Hardware labs containing equipment for teaching courses such as digital electronics, computer organization, microprocessors, digital signal processing, data communications, local area networks and embedded systems. Windows, UNIX, LINUX, and state-of-the-art database servers.

Faculty

With an average student-to-faculty ratio of 14 to one, every student receives the kind of personal attention they need to master a variety of skills applicable to the business world. Many members of the faculty hold doctoral degrees, and many have been recognized for their expertise in a variety of areas such as systems programming, networking, data communication, data analytics, and algorithms. The faculty are also known for their active involvement in advancing the technological capabilities on campus.

Students benefit from an interdisciplinary approach, taking courses from such disciplines as mathematics and business administration. Faculty from many departments team up to offer dynamic instruction in workplace applications, as well as in group projects. All are recognized for their teaching excellence and involvement with professional organizations.

Internships

Computer Science and Computer Information Systems students are encouraged to pursue off-campus internships in their senior year to hone their real-world skills outside the classroom. Most internships are paid, and all positions can provide a real edge after graduation.

Past and Current Internship Opportunities:

- Dell EMC
- IBM Mass Lab
- MassGeneral Hospital for Children
- Dun & Bradstreet
- VeriSign, Inc.
- Jibunu
- State Street Corporation
- PerkinElmer, Inc.
- ERP Analysts, Inc.
- Staples, Inc.