Suggested Four-Year Plan of Study
COMPUTER SCIENCE

FITCHBURG STATE UNIVERSITY

Computer Science B.S. (Bachelor of Science)

FRESHMAN YEAR

Fall Semester		*17 Credits*
ENGL 1100	Writing I	(3)
CSC 1500	Computer Science I	(3)
MATH 1300	Precalculus (if needed)	(4)
	LAB Course	(4)
	LA&S Elective (CTW)	(3)

Spring Semester		*15 Credits*
ENGL 1200	Writing II	(3)
CSC 1550	Computer Science II	(3)
CSC 1900	Discrete Math	(3)
	LS&S Elective (HIST)	(3)
	LA&S Elective (HMN)	(3)

SOPHOMORE YEAR

Fall Semester		*17 Credits*
CSC 1600	Introduction to Electronics	(4)
CSC 2560	Systems Programming	(3)
MATH 2300	Calculus I	(4)
	LA&S Elective (HAF)	(3)
	LA&S Elective (AOM)	(3)

Spring Semester		*17 Credits*
CSC 1650	Digital Electronics	(4)
CSC 3700	Algorithms and Data Structures	(3)
MATH 2400	Calculus II	(4)
SPCH 1000	Introduction to Speech Communication	(3)
	LA&S Elective (LIT)	(3)

JUNIOR YEAR

Fall Semester		*16 Credits*
CSC 2600	Computer Organization	(4)
CSC 3200	Programming Languages	(3)
MATH 1800	Business Statistics	(3)
CSC 3011	Data Modeling and Database Design	(3)
CSC 3xxx/4xxx	CSC Elective	(3)

Spring Semester		*16 Credits*
CSC 3600	Microprocessors	(4)
CSC 3100	Operating Systems	(3)
MATH 2600	Linear Algebra	(3)
CSC 3xxx/4xxx	CSC Elective	(3)
	Free Elective	(3)

SENIOR YEAR

Fall Semester		*12 Credits*
CSC 3xxx/4xxx	CSC Elective	(3)
CSC 3xxx/4xxx	CSC Elective	(3)
	Free Elective	(3)
	Free Elective	(3)

Spring Semester		*10 Credits*
CSC 4102	Ethical Issues in Computer Science	(1)
CSC 4400	Software Engineering	(3)
CSC 3xxx/4xxxx	CSC Elective	(3)
	Free Elective	(3)

LA&S Elective List

1 AOM attribute (Art or Music)
1 CTW attribute (Citizenship & The World)
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

Option B requirements fulfilled by completion of MATH 1800, 2300, 2400, and 2600.

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 3400 *Data Communication and Networking*
CSC 3040 *Cyber Security Management*
CSC 4940 *Internship: Computer Science*

Spring Semester
CSC 3004 *Parallel Programming*
CSC 3450 *Local Area Networks*
CSC 4005 *Ethical Hacking*
CSC 4940 *Internship: Computer Science*

Completion of 120 credits required for graduation.

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COMPUTER SCIENCE DEPARTMENT
Information Sheet

FITCHBURG STATE UNIVERSITY

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.