COMPUTER SCIENCE AND INFORMATION SYSTEMS B.S.

All students must meet the University Requirements (http://catalogue.uvm.edu/undergraduate/academicinfo/degreerequirements/).

A minimum of 120 credits are required and must include the following:

COMPUTER SCIENCE (44-45 CREDITS)		
Core:		
CS 008	QR: Intro to Web Site Dev	3
CS 021	QR: Computer Programming I [1]	3
CS 050	Seminar for New CS Majors	1
CS 064	QR: Discrete Structures	3
CS 110	QR: Intermediate Programming [1]	4
CS 120	QR: Advanced Programming	3
CS 121	QR: Computer Organization	3
CS 124	QR: Data Struc & Algorithms	3
CS 148	QR: Database Design for Web	3
CS 224	QR:Algorithm Design & Analysis	3
CS 292	Senior Seminar	1
CEMS 050	CEMS First Year Seminar [3]	1
Capstone Experience		3
A comprehensive, project-based experience, typically occurring during the Senior year, that draws from the full breadth of skills and knowledge developed throughout a student's undergraduate program. Students may choose from the following courses:		
CS 202	Compiler Construction	3
CS 205	QR: Software Engineering	3
CS 206	QR: Evolutionary Robotics	3
CS 211	Data Privacy	3
CS 225	QR: Programming Languages	3
CS 226	QR:Software Verification	3
CS 228	Human-Computer Interaction	3
CS 253	QR:Reinforcement Learning	3
CS 254	QR: Machine Learning	3
CS 275	QR:Mobile App Development	3
12 additional CS credits: 6 credits at the 100-level or above (CS 125 recommended for students who wish to pursue graduate study in CS); 6 credits at the 200-level or above.		12
BUSINESS ADMINISTRATION (24 CREDITS)		
BSAD 030	Decision Analysis	3
BSAD 060	Financial Accounting	3
BSAD 061	Managerial Accounting	3
BSAD 120	Leadership & Org Behavior	3
BSAD 150	Marketing Management	3
BSAD 173	Operations Management	3
BSAD 180	Managerial Finance	3
BSAD Elective (100-level or above)		3
ECONOMICS (6 CREDITS)		
EC 011	Principles of Macroeconomics	3
EC 012	Principles of Microeconomics	3
MATHEMATICS (8 CREDITS)		
MATH 021	QR: Calculus I [2]	4
MATH 022	QR: Calculus II [2]	4
PROBABILITY & STATISTICS (6 CREDITS)		
STAT 143	QR: Statistics for Engineering	3
STAT 151	QR: Applied Probability	3
NATURAL SCIENCES (7 CREDITS)		
2 courses, one of which must be a lab course that totals 4 credits, chosen from:		
Astronomy (ASTR) - All courses		
Biology (BIOL) - All courses		
BioCore (BCOR) - All courses		
Chemistry (CHEM) - All courses		
Geology (GEOL) - All coureses		
Physics (PHYS) - All courses		
Plant Biology (PBIO) - All courses		
GEOG 040	Weather, Climate & Landscapes	
GEOG 140	Biogeography	
GEOG 143	Climatology: Concepts & Tools	
GEOG 148	Global Environmental Change	
MMG 065	Microbiology & Pathogenesis	

PSYS 111	Learning, Cognition & Behavior	
PSYS 115	Biopsychology	
PSYS 211	Learning	
PSYS 215	Physiological Psychology	
PSYS 216	Psychopharmacology	
PSYS 218	Hormones and Behavior	

1 C- or higher required in CS 021 and CS 110.

2 MATH 019 and MATH 023 are acceptable substitutions for MATH 021 and MATH 022.

3 CEMS degree requirement designed for first-year students.

4 Students are required to complete a minimum of 3 credits of Humanities and 3 credits of Social Sciences.