COLLEGE of ENGINEERING and TECHNOLOGY
Bachelor of Science
COMPUTER SCIENCE
COMPUTER SCIENCE EMPHASIS
Catalog Year 2018-2019

COURSE NO	COURSE TITLE	PREREQUISITE	CR	Semester
COMPUTER SCIENCE CORE REQUIREMENTS				
CS 1400✣	Fundamentals of Programming	MAT 1000 or 1010. CS 1030 recommended	3.0	Fall, Spring, Summer
CS 1410✣	Object-Oriented Programming	CS 1400	3.0	Fall, Spring, Summer
CS 2300✣	Discrete Mathematical Structures I	CS 1410, MATH 1050	3.0	Fall, Spring, Summer
CS 2420✣	Intro to Algorithms and Data Structures	CS 1410	3.0	Fall, Spring, Summer
CS 2550*	Web Programming I	CS 1410	3.0	Fall, Spring, Summer
CS 2600*	Computer Networks I	CS 2810	3.0	Fall, Spring
CS 2690*	Computer Networks II	CS 2300, 2600, MATH 1210	3.0	Fall, Spring
CS 2810*	Computer Organization and Architecture	CS 1400	3.0	Fall, Spring
CS 496R*	Senior Seminar	ENGL 2010, UAS	1.0	Fall, Spring
CS 305G*	Global Social & Ethical Issues in Computing	ENGL 2010, CS 1400, UAS	3.0	Fall, Spring
CS 3060*	Operating Systems Theory	CS 2420, 2810, UAS, COSC or Computer Engineering Major	3.0	Fall, Spring, Summer
CS 3240*	Discrete Mathematical Structures II	CS 2810, COSC, UAS	3.0	Fall, Spring
CS 3320*	Numerical Software Development	CS 2810, COSC, UAS	3.0	Fall, Spring
CS 3520*	Database Theory	COSC, UAS	3.0	Fall, Spring, Summer
ECE 3710*	Applied Probability & Statistics for Engineers & Scientists	MATH 1210, UAS	3.0	Fall, Spring, Summer
MATH 1210✣	Calculus I	MATH 1050 & 1060 (Min. grade of C within two years)	5.0	Fall, Spring, Summer
COMPUTER SCIENCE EMPHASIS REQUIREMENTS				
CS 2450****	Software Engineering	CS 2300, CS 2420	3.0	Fall, Spring, Summer
CS 3250* or CS 3260* or CS 3270*	Java Software Development C#.NET Software Development Python Software Development	COSC, UAS COSC, UAS COSC, UAS	3.0	Fall only Fall, Spring Spring only
CS 3310*	Analysis of Algorithms	COSC, UAS	3.0	Fall, Spring
CS 3370*	C++ Software Development	CS 2810, COSC, UAS	3.0	Fall, Spring
CS 3450*	Principles and Patterns of Software Design	CS 3250 or 3260 or 3270 or 3370, UAS	3.0	Fall, Spring
CS 4380*	Advanced/High-Performance Computer Architecture	CS 3060, UAS, (CS 3370 recommended)	3.0	Fall, Spring
CS 4450*	Analysis of Programming Languages	CS 3240, CS 3250 or CS 3260 or CS 3270 or CS 3370, UAS	3.0	Fall only
CS 4470*	Artificial Intelligence	CS 3240, 3310, 3320, CS 3250 or 3260 or 3270 or 3370, UAS	3.0	Fall, Spring
CS 4490*	Compiler Construction	CS 4380, 4450, UAS	3.0	Fall, Spring
9 CREDITS OF COMPUTER SCIENCE ELECTIVES*: 3000* or 4000* level computer science course not already required, 3 credits of an approved internship or ECE 3750*			9.0	Speak with your advisor for info.

✣ See matriculation requirements

* Must have a minimum grade of C- in courses marked with an *

To contact or schedule an appointment with an advisor please go to: https://www.uvu.edu/cet/advising/

GENERAL EDUCATION REQUIREMENTS			
COURSE NO	COURSE TITLE	PREREQUISITE	CR
ENGL 1010 ✣	Introduction to Writing	ENGH 1000 with C- or higher (or appropriate test scores within 5 years)	3.0
ENGL 2010	Intermediate Writing	ENGL 1010 with C- or higher (or appropriate test scores within 5 years)	3.0
PHIL 2050	Ethics & Values	ENGL 1010. ENGL 2010 highly recommended	3.0
AMERICAN INSTITUTIONS	Consult Advisor or Refer to Wolverine Track		3.0
HLTH 1100 OR PES 1097	Personal Health/ Wellness OR Fitness for Life		2.0
FINE ARTS	Consult Advisor or Refer to Wolverine Track		3.0
COMM 1020*	Public Speaking	COMM 1020 required for Computer Science as Humanities Distribution	3.0
COMM 2110*	Interpersonal Communication	COMM 2110 required for Computer Science as Social Science Distribution	3.0
BIOLOGY	Consult Advisor or Refer to Wolverine Track		3.0
PHYS 2210* & PHYS 2215*	Physics for Scientists and Engineers & Lab	MATH 1210	5.0
Complete one of the following course/lab combinations: GEO 1010 & 1015 & 202R Intro to Geology & Lab BIOL1610 & BIOL 1615 College Biology I & Lab CHEM 1210 & 1215* Principles of Chemistry I & Lab PHYS 2020 & 2025 College Physics II & Lab PHYS 2220 & 2225 Physics for Scientists & Engineers II & Lab		Co-Requisite 202R 4-5 day excursion ENGL 1010 MATH 1050 (prior chemistry experience recommended) PHYS 2010 OR PHYS 2210 or PHYS dept. approval PHYS 2210 & MATH 1220	5.0
Total Credits Required for Degree			120

Must have a minimum grade of C- in courses marked with an *

Advanced Standing Requirements:

✣Matriculation into COSC requirements:

Students must be Formally Matriculated to this program before they can graduate after completion of the following:

- ✣CS 1400 Minimum grade C+
- ✣CS 1410 Minimum grade C+
- ✣CS 2300 Minimum grade C+
- ✣CS 2420 Minimum grade C+
- ✣MATH 1210 Minimum grade C
- ✣ENGL 1010 Minimum grade C

Overall UVU GPA must be minimum 2.5. Each class may not be repeated more than once.

UAS Requirements: Completion of min of 24 credits of 1000 or higher, completion of ENGL 2010 & MATH 1050 or higher & min 2.0 GPA.

GRADUATION REQUIREMENTS:

1. Completion of a minimum of 120 semester credits, with a minimum of 40 upper-division credits.
2. Overall grade point average of 2.0 or above.
3. Must have a minimum grade of C- with a combined GPA of 2.5 or higher in all discipline core and emphasis requirements and the General Education requirements marked with an *
4. Residency hours - - minimum of 30 credit hours through course attendance at UVU. 10 of these hours must be within the last 45 hours earned. At least 12 of the credit hours earned in residence must be in approved CS Department courses.
5. All transfer credit must be approved in writing by UVU.
6. No more than 80 semester hours and no more than 20 hours in CS type courses of transfer credit from a two-year college.
7. No more than 30 semester hours may be earned through independent study and/or extension classes.
8. Successful completion of at least one Global/Intercultural course. CS 305G satisfies this requirement.

❖ This sheet is a tool to assist you in your degree planning. For specific degree requirements, please refer to the catalog.