

# College of Science, Technology, Engineering, and Mathematics

## Computer Science BS

(137-140 credits)

### Why study Computer Science?

What aspect of modern life has not been affected by computing technologies? Personal computers, game machines, routers, laptops, tablets, smart phones, and wearable electronics have changed the landscape of daily life, but older technologies that we take for granted are also now controlled by software. Eastern graduates have career options in public accounting and in industry, government, and not-for-profit organizations, as well as in such applications as auditing, taxation, information systems and management services. Our traditional computer science degree provides extensive preparation in both the theoretical and practical aspects of computer science.

### Other Degree Options

The Bachelor of Science in Computer Science program is accredited by the Computing Accreditation Commission of ABET, Minors in 3D Animation, Computer Applications, Computer Information Systems, Computer Science Programming, Web Application Development. MS in Computer Science and an Interdisciplinary MS.

### Career Opportunities

Software Engineer, Game Programmer, Web Developer, Database Developer



### Department Chair

Dr. Bojian Xu  
319 F CEB  
Cheney, WA 99004  
509.359.6065  
[bojianxu@ewu.edu](mailto:bojianxu@ewu.edu)

### Operations Manager

Margo Stanzak  
319 F CEB  
Cheney, WA 99004  
509.359.4734  
[mstanzak@ewu.edu](mailto:mstanzak@ewu.edu)

### Student Success Coordinator

Christy Oliveri  
Communications 143  
Cheney, WA 99004  
509.359.4126  
[coliveri@ewu.edu](mailto:coliveri@ewu.edu)



<http://www.ewu.edu/cstem>

This is an example of a four year class schedule. Academic Advisors are there to help create individualized plans.

First Year	Q1	Q2	Q3
	CSCD 210 (5 cr.)	CSCD 211 (5 cr.)	CSCD 300 (5 cr.)
	EENG 160 (4 cr.)	ENGL 101 (5 cr.)	ENGL 201 (5 cr.)
	MATH 161 (5 cr.)	MATH 162 (5 cr.)	MATH 301 (5 cr.)
Second Year	Q5	Q6	Q7
	Lab Science Sequence 1 (see	BACR (5 cr.)	BACR (5 cr.)
	CSCD 240 (5 cr.)	Lab Science Sequence 2 (see	PHYS 161 (1 cr.)* or PHYS 16
MATH 231 (5 cr.)	CSCD 202 (5 cr.)	CSCD 260 (4 cr.)	
		CSCD 320 (5 cr.)	
Third Year	Q9	Q10	Q11
	BACR (5 cr.)	CSCD 370/371/327/373 (cho	CSCD 378 (4 cr.)* or 379 (4 c
	General Elective (2 cr.)	Group A elective #2 (see cat	Diversity (5 cr.)
Group A elective #1 (see cat	CSCD 330 (4 cr.)	CSCD 340 (5 cr.)	
CSCD 327 (4 cr.)	CSCD 349 (4 cr.)		
Fourth Year	Q13	Q14	Q15
	BACR (5 cr.)	Advanced Coursework cours	Advanced Coursework cours
	Global Studies (any one) (5 c	General Elective (4 cr.)	CSCD 490 (5 cr.)
Group B elective #1 (see cata	PHYS 161 (1 cr.)* or PHYS 16	MATH 380 (5 cr.)	
CSCD 350 (4 cr.)	CSCD 488 (5 cr.)		

Listed is a Sample Four Year Plan. Individual plans will vary based on placement test scores and class availability.

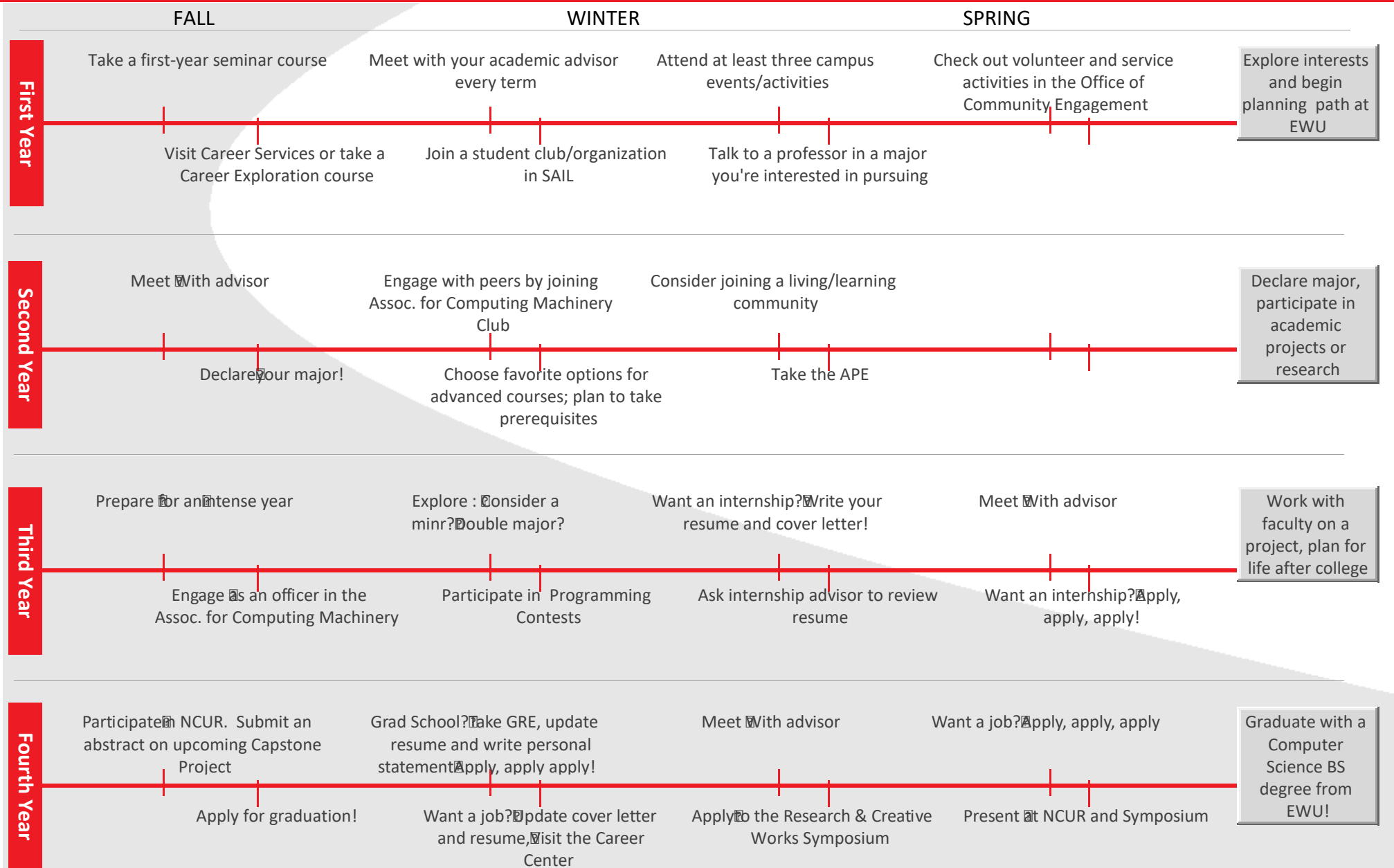


# Flight Plan to Success

The following milestones will help you succeed and improve your experience at EWU.

## Computer Science, BS

College of Science, Technology, Engineering, and Mathematics  
Computer Science



All recommended activities can occur at any time during a student's time at EWU



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Student's name: \_\_\_\_\_ EWU ID: \_\_\_\_\_

College of Science, Technology, Engineering, and Mathematics  
 SOAR Department: Comp Sci | SOAR Major: CSC  
 Major Declaration Form: Computer Science, BS-COMPSC  
 Math proficiency needed: MATH 161

Bachelor of Science in Computer Science  
 2018-2019 Catalog Year

First year courses and prerequisites	Notes	Previously offered **
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q1</div> CSCD 210 PROGRAMMING PRINCIPLES I (5 cr.) Prerequisites: $\geq 2.0$ MATH 141 and previous programming experience HIGHLY RECOMMENDED.		F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q1</div> EENG 160 DIGITAL CIRCUITS (4 cr.) Prerequisite: MTHD 104 or equivalent.		F17, W18, Sp18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q1</div> MATH 161 CALCULUS I (5 cr.) Prerequisites: MATH 142.	Satisfies: completion of this course with a grade $\geq C$ satisfies the university proficiencies in mathematics. Note: for the university proficiencies, this course may be substituted for MATH 107.	F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q2</div> CSCD 211 PROGRAMMING PRINCIPLES II (5 cr.) Prerequisites: CSCD 210 with a grade $\geq 2.5$ , MATH 142 with a grade $\geq 2.0$ .		F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q2</div> ENGL 101 COLL COMP: EXPOSITN & ARGUMNT (5 cr.) Prerequisite: Writing Placement Test or General Advising.	Satisfies: university competencies, writing.	F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q2</div> MATH 162 CALCULUS II (5 cr.) Prerequisite: MATH 161.		F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q3</div> CSCD 300 DATA STRUCTURES (5 cr.) Prerequisites: CSCD 211 and MATH 142. A grade $\geq C+$ is required for CSCD prerequisite and a $\geq C$ for each supporting prerequisite.		F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q3</div> ENGL 201 COLL COMP: ANALYSIS/RES/DOCMNT (5 cr.) Prerequisite: ENGL 101, Writing Placement Test or general advising.	Satisfies: university proficiencies, writing.	F17, W18, Sp18, Su18
<div style="border: 1px solid black; padding: 2px; display: inline-block;">Q3</div> MATH 301 DISCRETE MATHEMATICS (5 cr.) Prerequisite: MATH 142.	Satisfies: completion of this course with a grade $\geq C$ satisfies the university proficiencies in mathematics. Note: for the university proficiencies, the course may be substituted for MATH 107; you may not receive credit for both MATH 225 and MATH 301.	F17, W18, Sp18, Su18

I have discussed this academic plan with the student listed above. Advisor name: \_\_\_\_\_ Advisor signature: \_\_\_\_\_

\* See the catalog for prerequisites and other details.

\*\* Future course offerings may differ from the past. Check the course schedule for future courses.

To follow this MAP, you should place into MATH 161. If you place lower, your custom MAP may change.

This list of courses is for information purposes only. All students are required to follow the catalog requirements for the year they declared a major.

Second year courses and prerequisites

Notes

Previously offered \*\*

Q5	Lab Science Sequence 1 (see catalog) (5 cr.)		
Q5	CSCD 240 C AND UNIX PROGRAMMING (5 cr.) Prerequisites: CSCD 211 with a grade $\geq 2.5$ or concurrent enrollment.		F17, W18, Sp18, Su18
Q5	MATH 231 LINEAR ALGEBRA (5 cr.) Prerequisite: MATH 142.		F17, W18, Sp18, Su18
Q6	BACR (5 cr.)	Different science BACR	
Q6	Lab Science Sequence 2 (see catalog) (5 cr.)		
Q6	CSCD 202 COMPUTING ETHICS (5 cr.) Prerequisite: ENGL 101.	Satisfies: a BACR for humanities and arts. Counts as BACR (Arts&HUM)	
Q7	BACR (5 cr.)		
Q7	PHYS 161 (1 cr.)* or PHYS 162 (1 cr.)* or PHYS 163 (1 cr.)* or PHYS 263 (1 cr.)* (1 cr.)		
Q7	CSCD 260 ARCHITECTURE & ORGANIZATION (4 cr.) Prerequisites: CSCD 240 with a grade $\geq 2.5$ , EENG 160 with a grade $\geq 2.0$ .		F17, Sp18
Q7	CSCD 320 ALGORITHMS (5 cr.) Prerequisites: CSCD 300 with a grade $\geq 2.5$ , MATH 301 with a grade $\geq 2.0$ , advancement programming exam clearance.		F17, W18, Sp18, Su18

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Third year courses and prerequisites

Notes

Previously offered \*\*

Q9	BACR (5 cr.)	
Q9	General Elective (2 cr.)	
Q9	Group A elective #1 (see catalog) (4 cr.)	
Q9	CSCD 327 RELATIONAL DATABASE SYSTEMS (4 cr.) Prerequisites: CSCD 211 and MATH 301. A grade $\geq$ C+ is required for CSCD prerequisite and a $\geq$ C for each supporting prerequisite.	F17, W18, Sp18, Su18
Q10	CSCD 370/371/327/373 (choose one) (4 cr.)	
Q10	Group A elective #2 (see catalog) (4 cr.)	
Q10	CSCD 330 COMPUTER NETWORKS (4 cr.) Prerequisites: CSCD 300 with a grade $\geq$ 2.5, advancement programming exam clearance.	F17, W18, Sp18
Q10	CSCD 349 DESIGN PATTERNS (4 cr.) Prerequisites: CSCD 300 with a grade $\geq$ 2.5, advancement programming exam clearance.	F17, W18, Sp18
Q11	CSCD 378 (4 cr.)* or 379 (4 cr.)* (4 cr.)	
Q11	Diversity (5 cr.)	
Q11	CSCD 340 OPERATING SYSTEMS (5 cr.) Prerequisites: CSCD 240 with a grade $\geq$ 2.5, advancement programming exam clearance.	F17, Sp18, Su18

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Advisor signature: \_\_\_\_\_

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Fourth year courses and prerequisites

Notes

Previously offered \*\*

Q13	BACR (5 cr.)		
Q13	Global Studies (any one) (5 cr.)		
Q13	Group B elective #1 (see catalog) (4 cr.)		
Q13	CSCD 350 SOFTWARE ENGINEERING (4 cr.) Prerequisites: CSCD 300 with a grade $\geq$ C+ and Advancement Programming Exam clearance.		F17, Sp18
Q14	Advanced Coursework course #1 (see catalog) (4 cr.)		
Q14	General Elective (4 cr.)		
Q14	PHYS 161 (1 cr.)* or PHYS 162 (1 cr.)* or PHYS 163 (1 cr.)* or PHYS 263 (1 cr.)* (1 cr.)		
Q14	CSCD 488 SENIOR PROJECT (5 cr.) Prerequisites: CSCD 327, CSCD 349 and CSCD 350, and either CSCD 378 or CSCD 379 and Advancement Programming Exam clearance. A grade $\geq$ C+ is required for each prerequisite.	Note: students will receive a Y grade until successful completion of CSCD 490.	F17, W18, Su18
Q15	Advanced Coursework course #2 (see catalog) (4 cr.)		
Q15	CSCD 490 SENIOR CAPSTONE (5 cr.) Prerequisites: CSCD 488 prior quarter.	Satisfies: a university graduation requirement'senior capstone. Note: this course is the second course of a two-quarter project sequence and must be taken the quarter following successful completion of the Senior Project course.	F17, W18, Sp18
Q15	MATH 380 ELEM PROBABILITY & STATISTICS (5 cr.) Prerequisites: MATH 141 or Mathematics Proficiency Clearance, Computer Literacy Competency recommended.	Satisfies: completion of this course with a grade $\geq$ C satisfies the university proficiencies in mathematics. Note: for the university proficiencies, course may be substituted for MATH 107.	F17, W18, Sp18

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