# **COMPUTER SCIENCE**

- This worksheet is intended for supplemental use only. The University will use your Academic Requirements Report (ARR) to track your graduation requirements, including those for your major. Please continue to check your Student Center and ARR for accuracy.
- If your ARR requires a correction, please submit an ARR Correction Form.
- Your <u>Degree Planner</u> (in <u>mycsusm.edu</u>) will display the following requirements in the University's recommended sequence.
- With the exception of CS 100, all courses used for the major and preparation for the major must be completed with a grade of C (2.0) or higher.
- A minimum of 15 units counted toward the major must be completed at CSUSM.
- No more than 3 units of CS 498 or 499 may be applied toward the major.
- All non-articulated courses MUST be reviewed and approved by a faculty advisor in the corresponding department.

## **PREPARATION FOR THE MAJOR (39 UNITS)**

#### Lower Division (13 units):

~	_	Course	Units
		CS 100: Introduction to the Computing Fields	1
		CS 111: Computer Science I (^MATH 125 or 160)	4
		CS 211: Computer Science II (*CS 111; ^MATH 160)	4
		CS 231: Assembly Language and Digital Circuits (*CS 111)	4

### Non-Computer Science Supporting Courses (26 units)

~	Course	Units
	MATH 160: Calculus with Applications I (*MATH 125, 126, or pass Calculus Readiness Diagnostic)	5
	MATH 162: Calculus with Applications II (*MATH 160)	4
	MATH 242: Introduction to Statistics (*MATH 105, a more advanced MATH, or MATH Category 1 or 2)	3
	MATH 264: Introduction to Linear Algebra (*MATH 162)	3
	MATH 270: Basic Discrete Mathematics (*MATH 160)	3

#### Biology, Chemistry or Physics courses that count toward a science major (8 units):

~	_	Course	Units
			4
			4

### **UPPER-DIVISION COMPUTER SCIENCE COURSEWORK (39 UNITS)**

#### Core Coursework (30 units)

~	Course	Units
	CS 310: Social Issues and Professional Practices in Computing (*CS 111)	3
	CS 311: Data Structures and Algorithms (*CS 211; ^CS 310 and MATH 270 or 350)	3
	CS 331: Computer Architecture (*CS 231)	3
	CS 351: Programming Languages ( <sup>CS 311, MATH 270)</sup>	3
	CS 370/SE 370: Introduction to Software Engineering (^CS 311, MATH 270)	3
	CS 433: Operating Systems (*CS 231, 311)	3

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CS 436: Introduction	on to Networking (*CS 311)	3
CS 443: Fundamer	itals of Database Systems (*CS 311)	3
CS 471: Introduction	on to Artificial Intelligence (*CS 351 and either MATH 242, 440 or 442)	3
CS 490: Senior Pro	ject (*CS/SE 370; at least 2 400-level CS courses)	3

## **Computer Science Electives (9 units):**

Choose a minimum of 9 units from CS and CIS courses numbered 400 or higher, MATH 464\* or MATH 480\*.

