

# CURRICULUM FOR BACHELOR OF SCIENCE COMPUTER SCIENCE

*120 Specific Hours Required for Graduation*

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<b>FIRST YEAR</b>			
<b>FALL SEMESTER</b>		<b>SPRING SEMESTER</b>	
<b>Course #</b>	<b>Cr</b>	<b>Course #</b>	<b>Cr</b>
CS 152L: Comp Prog Fund <sup>(1)</sup>	3	MATH 163: Calculus II	4
MATH 162: Calculus I	4	CS 251L: Intermediate Program	3
Lab Science I <sup>(3)</sup>	4	Lab Science II <sup>(3)</sup>	4
<i>ENGL 110: Accel Composition<sup>(2)</sup></i>	3	CS 261: Math Foundations of CS	3
		<i>ENGL 120: Composition III</i>	3
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>17</b>

<b>SECOND YEAR</b>			
<b>FALL SEMESTER</b>		<b>SPRING SEMESTER</b>	
<b>Course #</b>	<b>Cr</b>	<b>Course #</b>	<b>Cr</b>
ECE 238L: Comp Logic Design <sup>(4)</sup>	4	CS 351L: Design Large Program	4
CS 241L: Data Organization	3	Lecture Science IV <sup>(3)</sup>	3
CS 293: Soc/Ethic Issues Comp	1	<i>Core/Writing &amp; Speaking<sup>(5)</sup></i>	3
Math 314 or 321: Linear Algebra	3	<i>Core/Social Science</i>	3
Lecture Science III <sup>(3)</sup>	3	<i>Core/Fine Arts</i>	3
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>16</b>

<b>THIRD YEAR</b>			
<b>FALL SEMESTER</b>		<b>SPRING SEMESTER</b>	
<b>Course #</b>	<b>Cr</b>	<b>Course #</b>	<b>Cr</b>
CS 375: Intro to Numerical Comp	3	CS 357L: Declarative Prog	3
STAT 345: Elements Math Stats Prob	3	CS 362L: Data Struct/Algorithms II	3
CS 361L: Data Struct/Algorithms I	3	CS Elective	3
Minor Elective <sup>(6)</sup>	3	Minor Elective <sup>(6)</sup>	3
<i>Core/Humanities</i>	3	<i>Core/Second Language</i>	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>

<b>FOURTH YEAR</b>			
<b>FALL SEMESTER</b>		<b>SPRING SEMESTER</b>	
<b>Course #</b>	<b>Cr</b>	<b>Course #</b>	<b>Cr</b>
CS 341L: Intro to Comp Systems	3	CS 460: Software Engineering	3
CS Elective	3	CS 481: Dig Comp Oper Systems	3
CS Elective	3	Minor Elective <sup>(6)</sup>	2/3
Minor Elective <sup>(6)</sup>	3	Minor Elective <sup>(6)</sup>	3
<i>Core/Social Science</i>	3	<i>Core/Humanities</i>	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>14</b>

*NOTE: See list of approved UNM Core Curriculum Courses for Computer Science.*

1. SOE 3 attempt rule: all SOE students need to complete all required classes within 3 attempts, e.g. 1<sup>st</sup> attempt **Withdrawal**, 2<sup>nd</sup> attempt **Failed Class** and 3<sup>rd</sup> attempt **Must pass class**
2. **CS 105L** (Introduction to Computer Programming) or **CS 108L** (CS for All: Intro to Computational Science and Modeling) are **required** as a **pre-requisite course for CS 152L**. **NOTE:** CS 105L or 108L **do not count** as courses towards the Computer Science degree
3. ENGL 111&112 sequence or ENGL 113 will also meet the ENGL 110 requirement
4. Four Science courses (3 or more credit hours, 14 credits total) that apply towards a science or engineering degree, two of which must be in the same subject, in sequence with their labs chosen from the list below. The additional 2 science classes can be more advanced courses in the chosen subject or they can be chosen from the list below.
  - ❖ **\*\*EPS 101/105L or \*\*ENVS 101/102L**
    - After completing **one** of the above (EPS or ENVS 101), students can then take EPS 201L
  - ❖ CHEM 121 & CHEM 123L, & CHEM 122 & CHEM 124L
  - ❖ BIOL 201 & BIOL 202 (check CHEM prerequisites)
  - ❖ PHYC 160 & PHYC 160L (recommend Math 163 co-req), & PHYC 161 & PHYC 161L (check MATH prerequisites)
  - ❖ ASTR 270 & ASTR 270L, & ASTR 271 & ASTR 271L (check MATH and PHYC prerequisites)

**Important Science Note:** Students may not use both EPS 101 and ENVS 101 to complete a science requirement.

5. CS152L is a prerequisite for ECE 238L. **CS Majors are not required to take ECE 131**
  6. Math minor students **will NOT receive credit for Math 314 and Math 321**
  7. CJ 130, ENGL 219 or ENGL 220 will satisfy the Core Writing/Speaking elective.
  8. Students must declare a minor through the CS department
- To comply with the ADA and Rehabilitation Act of 1973, persons having special needs and requiring auxiliary aid or service should contact the Accessibility Resource Center (ARC) and the Computer Science Department.

### **PRE-COMPUTER SCIENCE ADMISSION**

If you have not completed all the course requirements for Department Admission, you will be admitted as a Pre-Major CS student. Please speak with a CS Academic Advisor in Farris Engineering Center (FEC), Bldg. #119 (on UNM Map), Suite 2200, (505) 277-3112 [csinfo@cs.unm.edu](mailto:csinfo@cs.unm.edu) if you are interested in being admitted to the Pre-Major CS degree program.

### **DEPARTMENT ADMISSION CRITERIA**

1. A minimum of 26 hours of credit acceptable toward the degree with a grade of C or better in all courses and an overall academic average for all courses taken at the University of New Mexico of not less than 2.20. Completion of English 101 with a C or better must be included in the 26 hours.
2. Of the 26 hours, 18 credit hours must be taken from computer science, mathematics, and laboratory science with grades of C or better, except as noted below, and a cumulative GPA of 2.5 or above. Additional admission requirements and limitations for the School of Engineering are outlined in the UNM catalog.
3. Must complete the following courses with a **grade of B- or better: CS152L**, Computer Programming Fundamentals; and, **Math 162**, Calculus I

**NOTE: All CS students must see an advisor prior to registering each semester**