

## BACHELOR OF SCIENCE CURRICULUM WORKSHEET

### COMPUTER SCIENCE

*120 Specific Credit Hours Required for Graduation (Effective Fall2020/Spring 2021)*

**BS COMPUTER SCIENCE**

<b>FIRST YEAR</b>					
<b>FALL SEMESTER</b>			<b>SPRING SEMESTER</b>		
<b>COURSE #</b>	<b>CR</b>	<b>GR</b>	<b>COURSE #</b>	<b>CR</b>	<b>GR</b>
* <b>CS 152L</b> : COMP PROG FUNDAMENTAL	3		* <b>MATH 1522</b> : CALCULUS II	4	
* <b>GE/MATH 1512</b> : CALCULUS I	4		* <b>CS 251L</b> : INTERMEDIATE PROG	3	
GE/SCIENCES:	4		* <b>CS 261</b> : MATH F OUNDATIONS CS	3	
* <b>GE/ENGL 1120</b> : ENGLISH COMP II	3		GE/SCIENCES:	4	
PRE-REQ CS:	3		GE/WRITING/SPEAKING:	3	
<b>TOTOAL CREDITS</b>		<b>14-17</b>	<b>TOTAL CREDITS</b>		<b>17</b>
<b>SECOND YEAR</b>					
<b>FALL SEMESTER</b>			<b>SPRING SEMESTER</b>		
<b>COURSE #</b>	<b>CR</b>	<b>GR</b>	<b>COURSE #</b>	<b>CR</b>	<b>GR</b>
ECE 238L: COMP LOGIC DESIGN	4		CS 351L: DESI GN LARGE PROG	4	
* <b>CS 241L</b> : DATA ORGANIZATION	3		SCIENCE:	3/4	
CS 293: CS SOCIAL/ETHIC ISSUES CS	1		GE/SOCIAL SCIENCE:	3	
MATH 314/321: LINEAR ALGEBRA	3		GE/HUMANITIES:	3	
SCIENCE:	3/4		GE/ARTS & DESIGN:	3	
<b>TOTAL CREDITS</b>		<b>14-15</b>	<b>TOTAL CREDITS</b>		<b>16-17</b>
<b>THIRD YEAR</b>					
<b>FALL SEMESTER</b>			<b>SPRING SEMESTER</b>		
<b>COURSE #</b>	<b>CR</b>	<b>GR</b>	<b>COURSE #</b>	<b>CR</b>	<b>GR</b>
CS/MATH 375: INTRO TO NUMERICA	3		CS 357: DECLARATIVE PROGRAMING	3	
CS 361L: DATA STRUCT/ALGORITHM I	3		CS 362L: DATA STRUCT/ALGORITHM II	3	
STAT 345: ELEMENTS OF MATH STAT	3		CS 400/500 ELECTIVE:	3	
MINOR:	3		MINOR/ELECTIVE:	3	
MINOR:	3		GE/SECOND LANGUAGE:	3	
<b>TOTAL CREDITS</b>		<b>15</b>	<b>TOTAL CREDITS</b>		<b>15</b>
<b>FOURTH YEAR</b>					
<b>FALL SEMESTER</b>			<b>SPRING SEMESTER</b>		
<b>COURES #</b>	<b>CR</b>	<b>GR</b>	<b>COURSE #</b>	<b>CR</b>	<b>GR</b>
CS 341L: INTRO TO COMPUTER SYSTEM	3		CS 460: SOFTWARE ENGINEERING	3	
CS 400/500 ELECTIVE:	3		CS 481: COMPUTER OPERATING SYSTE	3	
CS 400/500 ELECTIVE:	3		MINOR/ELECTIVE:	3	
MINOR/ELECTIVE:	3		MINOR/ELECTIVE:	3	
MINOR/ELECTIVE:	3		MINOR/ELECTIVE:	2/3	
<b>TOTAL CREDITS</b>		<b>15</b>	<b>TOTAL CREDITS</b>		<b>14-15</b>
<b>CLASS SCHEDULE: SPRING 2021</b>		<b>CR</b>	<b>PROGRAM CHECKPOINTS</b>		<b>DATE</b>
			ADMISSIONS DATE:		
			FACULTY ADVISOR:		
			SHARED CREDIT:		
			ABET REQUIREMENT: <span style="color: red;">as of Fall 2017 WAIVED</span>		✓
			DIVERSITY REQUIREMENT:		✓
			GRAD APPLICATE/CHECK:		
<b>TOTAL CREDITS</b>			<b>GRADUATION DATE:</b>		

NOTE: See list of approved UNM General Education (GE) Curriculum Courses in the catalog at <https://catalog.unm.edu/>

### **PRE-COMPUTER SCIENCE ADVISEMENT**

For those interested in pursuing a degree or minor in Computer Science, we require you to first meet with an academic advisor to discuss and review program requirements. Advisement appointments are to be made through UNM Lobo Achieve at [loboachieve.unm.edu](http://loboachieve.unm.edu). For those Pre-CS students with last names beginning with A-L, Dylan Gauntt, ([advising@cs.unm.edu](mailto:advising@cs.unm.edu)) is your staff academic advisor, and those student's with last names beginning with M-Z, Lynn Conner ([advising@cs.unm.edu](mailto:advising@cs.unm.edu)) will be your staff academic advisor. Admitted CS students, graduate MS/PhD students are assigned to a Faculty Advisors when officially admitted to any CS degree programs. For additional information you may visit us at Farris Engineering Center (FEC), Bldg #119 (on UNM Campus Map), Suite 2200, or contact us by phone: 505-277-3112 or by email: [csinfo@cs.unm.edu](mailto:csinfo@cs.unm.edu). **We look forward to meeting with you!**

### **PROGRAM ADMISSION REQUIREMENTS**

For Pre-CS students interested in the CS bachelor's degree program, students must first complete the listed admission requirements prior to being admitted into the program. Pre-CS students must first complete an introductory CS course prior to taking required CS courses that are applicable towards the CS degree program. Students must first pass one of the following courses, **CS 105L/CS 108L/CS 150L/CS 151L**, or otherwise be pre-approved by the department, before they are able to begin taking program required CS 152L. Prior to students being admitted to the CS degree program, students must first successfully pass all of the following courses listed; **CS 152L (3cr) with a B- or better, and CS 241L (3cr), CS 251L (3cr), CS 261L (3cr), ENGL 1120 (3cr), MATH 1512 (4cr) and MATH 1522 (4cr) with a C or better**, as well as a 2.5 cumulative GPA and 23 completed credit hours towards the degree.

**SIDE NOTES:** Courses listed on front side of this document with the \* symbol are those courses that are required for admissions into degree program. There is not application process required for this degree program, once admission requirements are successfully completed and passed, you will automatically be admitted into the CS degree program and transition from a Pre-CS student to an admitted CS student. Once admitted, you will also be assigned to a faculty advisor who will help advise and guide you through the CS degree program.

### **SCHOOL OF ENGINEERING 3 ATTEMPT RULE, WARNING, SUSPENSION & DISMISSAL**

All School of Engineering students are required to pass as all CS courses with a C or better, with the exception of CS 152L and MATH 1512 with a B- or better, and CS Electives with a B or better. Students who do not pass any of their classes within 3 attempts may be dismissed from the CS program and the School of Engineering. Please contact your academic advisor after your second attempt to consider how to pass the course within its 3<sup>rd</sup> attempt. If applicable, you may petition for a 4<sup>th</sup> attempt to take a class, in which students must submit a petition to the School of Engineering's Associate Dean. Every semester, students who are falling below program or college requirements run the risk of receiving a warning, suspension or dismissal from the CS degree program and the School of Engineering. This audit is conducted at the end of academic semester and those students who are at risk, maybe required to complete and sign student success contracts. Please meet with your academic advisor if you feel that you are at risk.

**SIDE NOTES:** Audits, withdrawals, failed classes, classes not passed, NCR courses or any other record appearing on a student's transcript indicating that the class was not passed or does not have a passing grade by program standards, qualifies as an attempt. To access the 4<sup>th</sup> attempt petition, go to <http://engineering.unm.edu/advising/index.html>

### **COMPUTER SCIENCE PROGRAM REQUIREMENTS**

- 1) Students are required to take CS 105L/CS 108L/ CS 150L/ CS 151L or be pre-approved prior to taking CS 152L. These prerequisite courses to CS 152L, do not count towards the 120 credit hours CS degree coursework.
- 2) Students are not allowed to CS 241L and CS 251L during the same semester, they must be taken in the order that they are listed.
- 3) CS students are required to complete 14 credit hours of laboratory and lecture sciences. Of these science courses, students are only allowed to take those science courses that have been pre-approved and listed below, unless otherwise pre-approved by the department. Students are required to choose a science sequence, while completing both the lecture and laboratory requirement of that science sequence, students will complete 8 of 14 required credit hour. Once the science sequence is completed, students must then complete their remaining 6 credit hours of lecture sciences from those listed below, laboratory is optional for your additional science requirement.
  - a. ASTR 2110/2110L and ASTR 2115/2115L (MATH prerequisite required)
  - b. BIOL 2110c and BIOL 2410L (CHEM prerequisite required)
  - c. CHEM 1215/1215L and CHEM 1225/1225L (MATH prerequisite required)
  - d. GEOL 1110/1110L OR ENV5 1130/1130L and GEOL 2110C (NO prerequisite required)
  - e. PHYS 1310/1310L and PHYS 1320/1320L (MATH prerequisite required)
- 4) All CS students are required to have a MINOR. Please declare your minor with your academic advisor after being admitted to the CS dept.
- 5) Students pursuing a MATH minor may not receive credit for both MATH 314 and MATH 321
- 6) For Writing & Speaking core requirement, students may only choose one of the following courses: **COMM 1130 (3cr), ENGL 2120 (3cr) and ENGL 2210 (3cr), if you test out of ENGL 1110 and/or ENGL 1120 you may be short the 120crhrs for a BS CS degree so you will need to take ENGL 2120 or 2210 with COMM 1130.**
- 7) All students are required to complete the university's diversity requirement which is satisfied by undergraduate coursework.
- 8) **ABET course is WAIVED as of Fall 2017** please talk to your CS staff academic advisor for more information
- 9) CS 400/500 upper division courses must be passed with a B or better (not CS 460 or CS 481 C grade is passing)
- 10) After admitted into the CS degree program, student are eligible to apply for the "Shared Credit" program which allows students to take earn graduate level credit as an undergraduate. You may apply and discuss the process with your CS faculty & staff academic advisor.
- 11) Some CS courses are only offered during specific semesters. CS 361L is only offered during the FALL semester; CS 357L, CS 362L, and CS 481 is only offered during the SPRING semester.
- 12) Once admitted into the CS degree program, students will be assigned a specific faculty advisor, whom they will meet with every semester.
- 13) Holds are placed on EVERY STUDENT'S account, EVERY SEMESTER, which prevent students from registering for classes for the next semester. It is REQUIRED that students meet with their faculty or staff advisor every semester to remove academic hold on the account.
- 14) When emailing advisement, faculty, staff or any department at UNM, please always include your first and last name, **UNM student ID "101..."**, and always send emails from your UNM email to help verify your identity and keep within FERPA regulations.