

# Computer Science, AS



## Laramie County Community College

### FRESHMAN YEAR

Fall Semester				Hrs	Spring Semester				Hrs
COLS	1000	Intro to College Success: First Year Seminar		3	COSC	1030	Computer Science I		4
COSC	1010	Introduction to Computer Science		4	ENGL	1010	English I: Composition		3
MATH	2200	Calculus I		4	MATH	2205	Calculus II		4
		Lab Science I <sup>1</sup>		4			Lab Science II <sup>1</sup>		4
<b>TOTAL</b>				<b><u>15</u></b>	<b>TOTAL</b>				<b><u>15</u></b>

### SOPHOMORE YEAR

Fall Semester				Hrs	Spring Semester				Hrs
		Cultural Awareness Requirement <sup>2</sup>		3			Aesthetic Analysis Requirement		3
COSC	2030	Computer Science II		4			US/Wyoming Constitution Requirement <sup>5</sup>		3
		Math Elective I <sup>3</sup>		4	CO/M	1010	Public Speaking		3
		Statistics Course <sup>4</sup>		4	COSC	2300	Discrete Structures		3
							<b>OR</b>		
					MATH	2300	Discrete Structures		
							Computer Science Programming Elective <sup>6</sup>		3
<b>TOTAL</b>				<b><u>15</u></b>	<b>TOTAL</b>				<b><u>15</u></b>
<b>TOTAL LCCC AS DEGREE HOURS</b>								<b><u>60</u></b>	

Successful completion of the 2+2 plan requires that a student remain continuously enrolled and graduate with the associate's degree from his or her respective community college. • This is a guide for course work in the major; actual course sequence may vary by student. Please refer to the online student degree evaluation. • Not all courses are offered every semester and some electives may have prerequisites. Students should review the course descriptions in the catalogs of their respective institutions and consult with their academic advisor to plan accordingly. • Academic plans and course schedules may need to be altered if ACT or Math Placement scores require a student to take pre-college courses (e.g., MATH 0900, 0921, or 0925) before taking required math or English courses.

#### Laramie County Community College requirements:

In order to graduate, students must successfully complete a minimum of 60 credit hours, 15 of which must be from Laramie County Community College, with a grade point average of 2.0 or better at course level of 1000 or higher (ENGL 1001 does not apply).

#### University of Wyoming requirements:

Students must have a minimum cumulative GPA of 2.0 to graduate. • Students must complete 42 hours of upper division (3000-level or above) coursework, 30 of which must be from the University of Wyoming. • Courses must be taken for a letter grade unless offered only for S/U.

#### UW College of Engineering and Applied Science requirements:

Students must have a minimum cumulative GPA of 2.0 in all engineering courses for graduation. • A grade of C or higher is required for all prerequisite courses. Students must also achieve a grade of C or better in all required mathematics courses.

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University of Wyoming

## JUNIOR YEAR

Fall Semester				Hrs	Spring Semester				Hrs
COSC	2150	Computer Organization		3	COSC	3011	Introduction to Software Design		3
COSC	3015	Functional Programming		3	COSC	3050	Ethics for the Computer Professional		3
COSC	3020	Algorithms and Data Structures		4			Computer Science Program Language Course <sup>c</sup>		3
		Math Elective II <sup>a</sup>		3			Computer Science Elective I <sup>d</sup>		3
		Science Elective I <sup>b</sup>		4			Science Elective II <sup>b</sup>		4
<b>TOTAL</b>				<b><u>17</u></b>	<b>TOTAL</b>				<b><u>16</u></b>

## SENIOR YEAR

Fall Semester				Hrs	Spring Semester				Hrs
		USP Communication 3	C3	3	COSC	4955	Senior Design II		2
COSC	4740	Operating Systems		4			Computer Science Systems Course <sup>f</sup>		3
COSC	4950	Senior Design I		1			Computer Science Elective IV <sup>d</sup>		3
		Computer Science Theory Course <sup>e</sup>		3			Upper Division Electives		6
		Computer Science Elective II <sup>d</sup>		3					
		Computer Science Elective III <sup>d</sup>		3					
<b>TOTAL</b>				<b><u>17</u></b>	<b>TOTAL</b>				<b><u>14</u></b>
					<b>TOTAL UW HOURS</b>				<b><u>64</u></b>
					<b>TOTAL UW BS DEGREE HOURS</b>				<b><u>124</u></b>

### LCCC Computer Science Program Notes:

- 1) Lab Science Electives** are two semesters of courses selected from a tightly coupled series. Options include:  
 CHEM 1020 (General Chemistry I) **AND** CHEM 1030 (General Chemistry II)  
 PHYS 1310 (College Physics I) **AND** PHYS 1320 (College Physics II)  
 BIOL 1010 (General Biology I) **AND** BIOL 2022 (Animal Biology) **OR** BIOL 2023 (Biology of Plants and Fungi)
- 2) Cultural Awareness Requirement.** ECON 1010 (Principles of Macroeconomics) is recommended.
- 3) Math Elective.** Any course above MATH 2205 except MATH 2300 (Discrete Structures). See UW note "a" below.
- 4) Statistics Course.** Choose one (1) course from: STAT 2010 (Statistical Concepts - Business), STAT 2050 (Fundamentals of Statistics), or STAT 2070 (Introductory Statistics for the Social Sciences).
- 5) UW/Wyoming Constitutional Requirement.** Students may choose from the following courses: ECON 1200 (Economics, Law, and Government), HIST 1211 (United States to 1865), or POLS 1000 (American and Wyoming Government).
- 6) Computer Science Programming Elective.** May take any COSC, CMAP programming course, or networking security course.

### UW Computer Science Program Notes:

- a) Math Elective I & II.** A total of six (6) additional hours of math course work is required. Students must choose math courses above Calculus II or statistics courses 3000-level or above. Exceptions: MATH 2350 (Business Calculus), MATH 2355 (Mathematical Applications for Business), MATH 4000 (History of Mathematics), or any variable length credit courses cannot be counted toward this requirement.

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### UW Computer Science Program Notes con't:

**b) Science Electives.** Please see the Computer Science Department web page [www.uwyo.edu/cosc/undergraduate\\_students/cosc\\_degree/](http://www.uwyo.edu/cosc/undergraduate_students/cosc_degree/) for a current list of approved courses. These course selections must have a lab component and be recommended for science or engineering majors.

**c) Computer Science Programming Language.** Choose from COSC 4780 (Principles of Programming Language) or COSC 4785 (Compiler Construction).

**d) Computer Science Electives.** A total of 12 hours of upper division (3000-level or above) computer science electives are required. A maximum of three (3) hours of COSC 3970 (Internship) can be included in this requirement.

**e) Computer Science Theory Course.** Choose from COSC 4100 (Found of Computer) or COSC 4200 (Computability &

**f) Computer Science Systems Course.** Choose from COSC 4760 (Computer Networks) or COSC 4820 (Database Systems).