Computer Science Major

F16/S17 TEMPLATE

(only use this template if you entered RPI in the F16/S17 academic year)

The template below shows the undergraduate curriculum requirements for students majoring in Computer Science, including dual majors. Only use this template if your first semester at RPI was in the F16/S17 academic year. Note that you do not need to take courses in the exact order shown below, as long as all requirements are met and you earn at least 128 credit hours. Check the catalog for prerequisites and semester restrictions (e.g., fall only, spring only) on all courses you plan to take.

First Year

Fall 2016			**Spring 2017**		
CSCI 1100	Computer Science I	4	CSCI 1200	Data Structures	4
MATH 1010	Calculus I	4	MATH 1020	Calculus II	4
PHYS 1100	Physics I	4	BIOL 1010	Introduction to Biology	3
	HASS Elective	4	BIOL 1015	Introduction to Biology Lab	1
				HASS Elective	4

Second Year

Fall 2017			**Spring 2018**		
CSCI 2200	Foundations of Comp. Sci.	4	CSCI 2300	Intro. to Algorithms	4
CSCI 2500	Computer Organization	4	CSCI 2600	Principles of Software	4
	Mathematics Option I	4		Mathematics Option II	4
	HASS Elective	4		HASS Elective	4

Third Year

Fall 2018			**Spring 2019**		
CSCI 4430	Programming Languages	4	CSCI 4210	Operating Systems	4
	CS Option/Capstone	4		HASS Elective	4
	Science Option	4		Free Elective	4
	HASS Elective	4		Free Elective	4

Fourth Year

Fall 2019			**Spring 2020**		
	CS Option/Capstone	4		CS Option/Capstone	4
	Free Elective	4		Free Elective	4
	Free Elective	4		Free Elective	4
	Free Elective	4		Free Elective	4

Science Option: A four-credit course chosen from the following: astronomy, biology, chemistry, earth and environmental science, and physics. The Pass/No Credit option cannot be used for this course. The course ERTH 1030 cannot be used to satisfy this requirement.

Mathematics Options: Two additional courses in mathematics. Mathematics Option I must be one of the following courses: MATH 2010, MATH 4030, MATH 4040, MATH 4100, or MATP 4600. Mathematics Option II must be any course in MATH/MATP at the 2000 level or above (excluding MATH 2800). Independent study courses cannot be used to satisfy this option. The Pass/No Credit option cannot be used for these courses. Note that although some courses are cross-listed as both MATH and CSCI, if a course is used to fulfill the Mathematics Option requirement, it cannot also be used as a CS Option/Capstone course.

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Computer Science (CS) Options: Three additional computing courses of three or four credits at the 4000 or 6000 level. For this purpose, courses in the series CSCI 4xxx, CSCI 6xxx, ECSE 46xx, and ECSE 47xx may be used, excluding ECSE 4630, ECSE 4640, ECSE 4720, and reading and independent study courses. The Pass/No Credit option cannot be used for these courses.

Computer Science Capstone: A culminating experience selected from one of the two categories below (note that the Pass/No Credit option cannot be used for any of the courses below):

(1) The research-focused capstone consists of a 4-credit Undergraduate Research Project (URP) supervised by a CSCI (or CSCI-affiliated) faculty member. The student will complete a formal written research project report or paper approved by the faculty supervisor.

(2) The coursework concentration capstone consists of three 4000- or 6000-level CSCI (or CSCI cross-listed) courses in one of the following topic areas:

Theory and Algorithms
Systems and Software
Artificial Intelligence and Data
Vision, Graphics, Robotics, and Games

All 4000- and 6000-level CSCI catalog courses that are not part of the required undergraduate core are assigned to one or more topic areas. Similarly, all 4000- and 6000-level special topics courses (i.e., with 496x, 497x, 696x, and 697x course numbers) are assigned to one or more topic areas when the given course is listed. Note that the courses taken also count as Computer Science Option courses.