

FIRST YEAR STUDENT INFORMATION COMPUTER SCIENCE MAJOR 2009-2010

Computer Science is the study of theoretical and practical aspects of computer technology and computer usage. The Computer Science Department offers a B.A. and a B.S in Computer Science, a B.S. in Computer Science: Computer Game Design, as well as a minor and M.S. and PhD degrees. To learn more about the Computer Science major go to:

<http://www.cs.ucsc.edu/undergraduates>

NEW STUDENT ORIENTATION

Students begin college with a wide variety of backgrounds and levels in science and math. During this orientation, you will be able to take placement exams, receive help on choosing classes, and learn to access the many services and resources available. This is an opportunity to meet with faculty and staff that will assist you with your academic goals. Please go to <http://admissions.ucsc.edu/orientation09/> to get more information.

**If you are unable to attend summer orientation make sure to come to
Fall Orientation: September 22, 2009 10:30am - 12:30pm, 101 Engineering Lecture**

ENROLLMENT FOR FALL QUARTER

Computer Science has many course requirements that must be taken sequentially. Whether you are an admitted or a proposed Computer Science major, we strongly recommend you begin the major fall quarter of your first year. Here are some suggestions:

(Strongly recommended that you take all major requirements for letter grades)

First-year students are required to take the appropriate college core course fall quarter:

5 units College Core Course

Due to math course sequence requirements, it's recommended that you begin them fall quarter:

5 units Mathematics – MATH 19A, Calculus, or AMS 3, Pre-calculus for Science & Engineering

For your third class, begin the programming sequence or take a general education elective:

5 units Computer Science - CMPS 10, Introduction to Computer Science

(No programming experience required. This course not required for the major but highly recommended.)

OR 7 units Computer Science – CMPS 12A and CMPS 12L, Intro to Programming & Lab (Accelerated)

(Prerequisite for CMPS 12A is math placement into Math 19A and programming experience *highly* recommended)

OR 5 units General Education Elective

We highly recommend that you take CMPS 10 your first quarter. This is a broad introduction to computer science that will help you have a better perspective in subsequent courses. If you have had some programming experience (e.g. high school AP computer science) and are eligible to enroll in Math 19A, then you can also consider taking CMPS 12A/L instead of CMPS 10. *Please note:* math placement into Math 19A is a prerequisite to CMPS 12A. Please see the next page for information on placement exams.

**SoE Undergraduate Affairs Office
225 Baskin Engineering Building
Open M-F 9-11am & 1:30-3:30pm
Express Drop-in advising hours: M-F 1:30 - 3:30pm
(831) 459-5840 advising@soe.ucsc.edu**

www.soe.ucsc.edu/advising/undergraduate

MATH PLACEMENT EXAM

You will need to take the math placement exam unless you have been awarded advance placement credit. The purpose of this exam is to establish at what class level you should begin in this subject. You will need to take this exam before you can enroll in MATH 19A, AMS 3, or CMPS 12A. **Do not enroll in MATH 11A - take AMS 3 if you do not place into MATH 19A.** See <http://www.math.ucsc.edu/placement/index.html> for a study guide and information on dates, times and locations for the exams.

ADVANCED PLACEMENT & INTERNATIONAL BACCALAUREATE EXAMS

Transfer units are gained at the University in accordance with scores earned on College Board Advanced Placement (AP) and for International Baccalaureate Higher Level (IBH) exams. However, not all exam scores qualify for credit toward Computer Science major requirements, even if university units have been granted. In order to obtain "course credit", you must provide appropriate "score" verification to the School of Engineering Undergraduate Student Affairs Office. The following AP and IBH scores are accepted for course credit in lieu of SoE major requirements:

Advanced Placement & International Baccalaureate Exams	SCORE	UCSC COURSE CREDIT
AP Computer Science Exam A	3	CMPS 5J
AP Computer Science Exam A	4 or 5	CMPS 12A, Introduction to Programming**
AP Computer Science Exam AB	4 or 5	CMPS 12A, Introduction to Programming & CMPS 12B, Introduction to Data Structures**
IBH Computer Science	5	CMPS 12A, Introduction to Programming**
IBH Computer Science	6 or 7	CMPS 12A, Introduction to Programming & CMPS 12B, Introduction to Data Structures**
AP Mathematics Calculus Exam AB	3	AMS 3 or MATH 3
AP Mathematics Calculus Exam AB	4 or 5	MATH 19A, Calculus
AP Mathematics Calculus Exam BC	3	Enrollment in MATH 19A is recommended
AP Mathematics Calculus Exam BC	4 or 5	MATH 19A & 19B, Calculus
AP Chemistry Exam	5	CHEM 1A, General Chemistry

**Includes credit for associated labs

SAMPLE PLANS

These sample plans are intended to help students plan their first two years by providing a framework that you can adapt to your own interest and special needs.

To view the entire curriculum for this major go to: <http://www.soe.ucsc.edu/advising/undergraduate/curriculum-charts>

COMPUTER SCIENCE – Bachelor of Science or Bachelor of Arts Prior Programming Experience

COMPUTER SCIENCE – Bachelor of Science or Bachelor of Arts Limited or No Prior Programming Experience

	FALL	WINTER	SPRING
Year 1	CMPS 10 MATH 19A Core Course	CMPS 12A/L MATH 19B Gen Ed	CMPS 12B/M MATH 23A Gen Ed
Year 2	CMPE 16 AMS 10 Gen Ed	PHYS 6A/L (BS ONLY)** CMPS 101 Gen Ed	PHYS 6C/N (BS ONLY)** Major course Gen Ed

	FALL	WINTER	SPRING
Year 1	MATH 19A CMPS 10 Core Course	MATH 19B CMPS 5J Gen Ed	MATH 23A CMPS 11 Gen Ed
Year 2	AMS 10 CMPE 16 CMPS 12B/M	PHYS 6A/L (BS ONLY)** CMPS 101 Gen Ed	PHYS 6C/N (BS ONLY)** Major course Gen Ed

**Students pursuing the B.S. curriculum have the option of taking Chemistry courses instead of Physics