

**FIRST YEAR STUDENT INFORMATION
BIOINFORMATICS MAJOR
2009-2010**

Bioinformatics is a multidisciplinary program sponsored by the Biomolecular Engineering Department. The program currently offers B.S., M.S., and Ph.D. degrees in bioinformatics, as well as a minor. To learn more about the Bioinformatics major go to: <http://www.bme.ucsc.edu/bioinformatics>

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 from 10:30 am – 12:30 pm, 101 Engineering Lecture**

ENROLLMENT FOR FALL QUARTER

Bioinformatics has many course requirements that must be taken sequentially. Whether you are an admitted or a proposed Bioinformatics 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, you must begin them fall quarter:

5 units Mathematics – MATH 19A, Calculus

For your third course, begin the programming or chemistry sequence:

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 recommended)

OR

5 units Chemistry - CHEM 1A

OR

5 units General Education Elective

**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 and 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 Bioinformatics 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

***Students who intend to apply to medical school may need to take CHEM 1A regardless of their AP exam score.

SAMPLE PLANS

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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/sites/default/files/BINF0809.pdf>

	FALL	WINTER	SPRING
Year 1	Math 19A	Math 19B	Math 23A
	CMPS 12A/L	CMPS 12B/M	CMPE 16
	Core	Gen Ed	Gen Ed
Year 2	Chem 1A	Chem 1B/M	Chem 1C/N
	CMPE 107	CMPS 109	Bio 20A
	BME 80G	Gen Ed	Gen Ed

	FALL	WINTER	SPRING
Year 1	Math 19A	Math 19B	Math 23A
	Chem 1A	Chem 1B/M	Chem 1C/N
	Core	Gen ed	Gen ed
Year 2	CMPE 16	CMPS 12A/L	CMPS 12B/M
	Chem 108A/L	Biol 20A	Biol 105
	BME 80G	Gen ed	Gen ed

*Plan one is a suggested plan for students who are undecided between bioinformatics and another computing major. Plan two is suggested for students undecided between bioinformatics and some other field in biology or chemistry.