Computer Science, B.S students are required to complete **twelve units** of science and technology courses, not used to satisfy other requirements. They may do so by choosing one of the four options listed below.

- Courses used to satisfy the Science & Technology Course requirements **cannot be used to satisfy other requirements in a student's major**.
- Students are responsible for any pre-requisites for the courses they select to fulfill the Science & Technology requirements.
- **Please pay attention to subset restrictions on page 2.**

**OPTION 1 – 12 UNITS OF ADDITIONAL COMPUTER SCIENCE ELECTIVE COURSES:**
Twelve units of additional upper division CS electives (numbered 100-187) not being applied to any other Degree Requirements. (CS 188 offerings must be petitioned).

**OPTION 2 – 12 UNITS OF COURSES TO SUPPLEMENT YOUR CHOSEN TECHNICAL BREADTH AREA:**
Twelve additional units of courses listed in the **same** TBR area selected on my.engineering.ucla.edu. Courses must be on the current Technical Breadth Requirements list. [http://www.seasoasa.ucla.edu/wp-content/uploads/seasoasa/TBA-1.pdf](http://www.seasoasa.ucla.edu/wp-content/uploads/seasoasa/TBA-1.pdf) Example: If Electrical Engineering is your TBA, then you may take 6 EE courses to satisfy both the TBA and the Sci-Tech. You may not choose a 2nd TBA. To complete a different area, follow Option 3.

**NOTE:** Students who have chosen to complete their TBA in **Technology Management** may not complete the Science & Technology requirements in additional Management/Technology Management courses. They must choose Option 1 or Option 3 to complete their Science & Technology requirements.

**OPTION 3 – 12 UPPER DIVISION UNITS SELECTED FROM ONE OF THE FOLLOWING DEPARTMENTS:**
Twelve upper division units (numbered 100-187) from **ONE** of the departments below and are not used to satisfy other requirements. Students are responsible for pre-requisites, but may petition to use 1 lower division prerequisite to count towards 1 Sci-Tech elective, IF the lower division course is a prerequisite for at least one of the other two upper division Sci-Tech courses that the student takes from the same area.

**NOTE:** Enrollment access to the departments listed below is at the respective department's discretion. There is no guarantee of access to the courses. Note there is no guarantee of approval and petitions should be submitted (at 6426BH) well in advance of enrolling in courses.

- Astronomy
- Atmospheric & Oceanic Sciences
- Biological Chemistry
- Chemical & Biomolecular Engineering
- Chemistry & Biochemistry
- Civil & Environmental Eng
- Earth & Space Sciences
- Economics
- Electrical Engineering
- Geography*(read below)
- Linguistics
- Management*(read below)
- Materials Science & Engr
- Mathematics*(read below)
- Mechanical & Aerospace Engineering
- Microbiology, Immunology & Molecular Genetics
- Molecular, Cell & Developmental Biology
- Physics
- Statistics*(read below)
- Design Media Arts (DESM)* (read below)

* GIS/Technical courses such as GEOG 167, 168, 169, 166, 170, M171, 172, and 173 will be approved if petitioned. Other courses subject to review; please attach syllabi.

* Students who have chosen to complete their TBA in **Technology Management** may not complete the Sci-Tech requirements in additional Management courses.

* Students who have chosen to complete their TBA in **Engineering Mathematics** and would like to complete their Sci-Tech requirements with additional upper division Mathematics courses must submit petition with all 6 proposed courses for approval in advance of taking courses. Math 182 is not approved. Math 116 not approved for students with credit for CS 183.

* STATS 112 and C116 are not approved for the STATS Sci-tech.

* DESMA courses such as 101 or 104, and 157, and 161 are approved. Other courses subject to review; please attach syllabi and petition in advance of taking courses. Warning, this is a smaller department. Enrollment is based on availability and it may be difficult to complete 3 courses in this area.

**OPTION 4 - LIFE SCIENCES PREP:**
Students can take the 3 of the following lower division courses to satisfy this Sci-Tech requirement: Chemistry 20A, 20B, 30A, one from Life Sciences 3 or 7A. Note that for CS majors this combination of courses can be used to acquire the prerequisites for courses in the Genomics Technical Breadth Area.
SUMMARY OF RESTRICTIONS

*The following lists several subsets of courses. It is not permitted to use more than one course from any one subset to satisfy degree requirements of any HSSEAS major unless one is explicitly specified as recommended or is listed as a prerequisite in the catalog description of the other course in the same subset. Example: in Subset 3b), MECH&AE 101 is a pre-requisite for MECH&AE 102; therefore, a student is allowed take both of these courses unless this pre-requisite changes.

Subset 1: Probability and Statistics course subset (C&EE 110, STATS 110A, EL ENGR 131A, MATH 170A, STATS 100A)
Subset 2: Numerical Computing course subset (EL ENGR 133A, C&EE 103, CH ENGR 109, MATH 151A)
Subset 3a): Structural Mechanics Subset (C&EE 108, MECH&AE 101)
Subset 3b): Statics and Dynamics Subset (C&EE 101, MECH&AE 101, MECH&AE 102)*
Subset 4a): Introductory Thermodynamics subset (CH ENGR 102A, MECH&AE 105A)
Subset 4b): Transport Phenomena (CH ENGR 101B, MECH&AE 105D)
Subset 5a): Systems (EL ENGR 102, MECH&AE 107, PHYSICS 131)
Subset 5b): Controls (CH ENGR 107, EL ENGR 141, MECH&AE 171A)
Subset 6): Circuits (EL ENGR 10, EL ENGR 100), (EL ENGR 100, EL ENGR 110)