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.

**NOTE THE FOLLOWING RESTRICTIONS:**

- See page 2 of this document for a summary of SUBSET restrictions. Students may not use more than one course from any subset in meeting the degree requirements of any HSSEAS major. Degree requirements include required courses, major electives, science & technology electives, technical breadth requirements, etc – any course that satisfies a degree requirement
- See additional restrictions as outlined under each option 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.

**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/undergraduates/undergraduate-technical-breadth-area-tba](http://www.seasoasa.ucla.edu/undergraduates/undergraduate-technical-breadth-area-tba) 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 pre-requisite 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
- Biomathematics
- Chemical & Biomolecular Engineering
- Chemistry & Biochemistry
- Civil & Environmental Engineering
- Earth & Space Sciences
- Economics
- Electrical Engineering
- Geography*(read below)
- Linguistics
- Materials Science & Engineering
- Mathematics*** (read below)
- Mechanical & Aerospace Engineering
- Microbiology, Immunology & Molecular Genetics
- Molecular, Cell & Developmental Biology
- Physics
- Statistics**** (read below)
- Design Media Arts
- (DESMA)* (see page 2)

*Students must submit petition for approval in advance of taking courses. 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 submit syllabi if needed

**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

****Students must submit petition for approval in advance of taking courses. STATS 112 and C116 are not approved for the STATS Sci-tech.

**OPTION 4 - LIFE SCIENCES:**
Students can take the following lower division courses to satisfy this Sci-Tech requirement: Chemistry 20B, Chemistry 30A, Life Sciences 3. You may also need to complete other courses to meet the requisites for theses classes. Note that for CS majors this combination of courses can be used to acquire the prerequisites for courses in the Genomics Technical Breadth Area.
*WARNING DESMA ENROLLMENT NOTICE:*

At this time the DESMA Department has informed the COM SCI department that due to enrollment and budget constraints that for the most part the DESMA Department can NOT satisfy the enrollment requests by COM SCI students to enroll in most DESMA courses; therefore:

If you are a student that has not started the DESMA Sci Tech option (not taken any DESMA courses), we strongly advise you to another Sci Tech area. We cannot guarantee that you will be able to get into 3 DESMA courses. Please note that you may be required to start and complete a different area for your Sci-Tech. Historically, some students have been able to get into one, sometimes 2 DESMA courses, but it is rare to see someone get into 3 and complete the Sci-Tech. Despite these warnings, if you still want to pursue this Sci-Tech you should be in contact with a CS counselor to discuss a back up option.

**SUMMARY OF RESTRICTIONS**

**Item 1:** The following lists several subsets of courses. It is not permitted to use more than one course from the same subset in meeting the degree requirements of any HSSEAS major unless an additional course from that subset is explicitly specified as recommended or is listed as a prerequisite in the catalog description of the course in the same subset.

Example: in Subset 3a), MECH&AE 101 is a prerequisite for MECH&AE 102; therefore, a student is allowed take both of these courses unless this prerequisite changes.

**Item 2:** A student who is taking a curriculum that requires a subset of courses from another department (different from the one from which the student’s degree is granted) may select three additional upper division courses for a TBA from that department to broaden his/her education in that area of study, as long as item 1 is satisfied. Example: computer science and engineering majors are required to some electrical engineering courses. Computer science and engineering majors can satisfy their technical breadth requirement by taking three more electrical engineering courses.

**Subset 1:** Probability and Statistics course subset (C&EE 110, STATS 110A, EL ENGR 131A, MATH 170A, STATS 100A, MECH&AE 174)

**Subset 2:** Numerical Computing course subset (EL ENGR 103/133A, C&EE 103, CH ENGR 109, MATH 151A, MECH&AE 182C)

**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) see Item 1

**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)

**Subset 5b):** Controls (CH ENGR 107, EL ENGR 141, MECH&AE 171A)