Major Requirements Budget Framework Initiative Project
Expectations for Engineering Majors

Developed Based on November 30, 2015 Systemwide Meeting about Engineering Requirements
Discussed at February 2, 2016 Meeting of Major Requirements Point Persons
Reviewed and Approved at February 8, 2016 Meeting of UCOP BFI Work Group

The goals for the Major Requirements project are as follows:

Project Goals: All undergraduate campuses will undertake a comprehensive review of the courses necessary in 75 percent of majors and complete this review by July 1, 2017. The initiative, modeled after UCLA's Challenge 45, has the goal of reviewing the number of courses and reducing those requirements to no more than 45 quarter-equivalent units where possible by eliminating any unnecessary requirements for completion of the major. (from project charter)

Background and Proposal for Expectations for Engineering Majors
Many UC engineering majors fall into the top 75% of majors, most are accredited by a professional organization, and the rest generally conform to the expectations of the accrediting body (ABET). Because of accrediting requirements many had argued that engineering majors be exempted from participation in the Major Requirements project. Among the many ABET accrediting requirements and definitions the following are relevant to consideration of participation in the BFI Major Requirements project:

Criterion 5. Curriculum.
(a) one year of a combination of college level mathematics and basic sciences
(b) one and one-half years of engineering topics, consisting of engineering sciences and engineering design appropriate to the student's field of study
(c) a general education component that complements the technical content of the curriculum and is consistent with the program and institution objectives

Criterion 5. Curriculum: One year is the lesser of 32 semester hours (or equivalent) or one-fourth of the total credits required for graduation.

Note that the ABET definition of one year is either the same as or quite compatible with the definition on the UC campuses participating in the Major Requirements project.

On November 30, 2015 UCOP held a systemwide meeting of engineering deans, other engineering leaders, and senior staff to discuss the Major Requirements project and what to do about engineering majors. That meeting was instrumental in developing recommendations that BFI project leaders and campus point persons believe should be implemented. They are as follows:

1. Engineering majors in the top 75% on each campus will be part of the Major Requirements project

2. Expectations for the review will be as similar as possible to those for other majors, as described in points 3-5 below

3. Engineering faculty will review required courses in the major field with the intention of ensuring both that these course requirements are appropriate for today's and tomorrow's graduates in any engineering major and also that the required courses are as small in number (or units or both) as possible.

4. The target is to reduce the required engineering topics to those that will take no more than one and one-half years of full-time study to complete

5. To the extent that the required engineering topics are both lower division and upper division courses, the target will be to reduce the upper division requirement to no more than one year of full-time study and the total requirement to no more than one and one-half years.

Note: Accredited and pre-professional undergraduate majors other than those in Engineering will meet the general Major Requirements expectations unless there is a separate consideration of each one and an explicit agreement about a different expectation; that is, unless the process used with Engineering majors is followed for other accredited and pre-professional undergraduate majors the expectations for these majors are the same as those for all other majors except Engineering.