

# Charge to the Curriculum Decision Making Board

*The Olin College Curricular Vision was written by then Olin Provost David V. Kerns in the fall of 2001. On January 15, 2002, Kerns charged the Curriculum Decision Making Board to develop that vision into an informed recommendation for the initial Olin Curriculum.*

The Decision Making Board is to develop a recommendation for the initial Olin curriculum. This includes a detailed description of the Foundation, and a more general description of the latter two years. The level of detail for the Foundation should be approximately that provided in the sample curriculum explained recently by Brian Storey: a major topic by quamester, with a detailed backup of sub-topics approximately weekly. The time-sequencing and coordination of topics is important and should be given consideration. Also it is important to describe how projects will be used to coordinate material. The curriculum description should provide enough guidance that those assigned to teach would know what to prepare and when and how they would be expected to deliver it. It would also be useful to prepare recommendations for teaching assignments (or several possible options) to assure that we can teach the curriculum recommended with our current faculty.

Expressed differently, faculty need to know the following (per L. Stein):

1. How many students per activity?
2. What background will the students need / have?
3. What knowledge, skills, and attitudes will this activity create?
4. How many hours will this require of instructor, of students?
5. When will this activity take place?
6. How / who will provide coordination?

Number 5 above is partly a scheduling function that will be performed by the registrar. However, the “when” question is impacted by curricular design. For example, if we have 75 students, and decide we want classes no larger than 25, this implies 3 sections....and if we only have two instructors for this subject, it follows that at least two sections must be taught at different times. Does this affect the desired “flow” or sequencing of topics?

If the CDMB reaches a significant “branch point” in its development of the curriculum, it may decide to address the faculty for guidance or present two options for consideration before making its final recommendation.

The document written by D. Kerns, “The Olin College Curriculum Vision” (version 1.1) can be used as a guidebook. It summarizes most of the curricular goals, objectives and approaches developed through past retreats, discussions and meetings.

A few of the objectives for the Olin College Culture copied from this document are listed here first:

1. An approach that is student centered, agile, and responsive to change
2. An approach that institutionalizes a culture of continuous improvement
3. A passion for undergraduate education in an environment of personal attention and concern
4. A culture of innovation, inquiry, entrepreneurship, research or other form of intellectual vitality made available to students

This document details the key elements of the Olin Curriculum; it includes such items as:

1. Address the issues raised by the NSF Coalition Studies
2. Open doors to student possibilities
3. The Content Triangle: Superb Engineering, Arts, Entrepreneurship should be explicit
4. Three levels: Multidisciplinary Foundation, Specialization, Realization
5. The Bold Goals
6. A Strong Emphasis on Projects
7. Innovative Methods of Delivery: Courses, Projects, Competencies
8. Gates

A few additional specific goals are listed below:

1. A student should not be penalized (lose credit) by changing majors during the first (at least) 1.5 years.
2. Separate curricula should be specified for:
  - a) Electrical and Computer Engineering
  - b) Mechanical Engineering
  - c) Engineering (and Applied Science)

(However, the Foundation for all of these would be very similar if not identical.)

3. All degrees should be capable of being accredited by ABET
4. The detail of Specialization and Capstone learning activities can be deferred, as long as major topics are identified, and the way in which this learning is created is described. For example if the specialization moves more toward competencies, we must understand the competencies, and how they will be developed and assessed.
5. There should be as much student choice and flexibility as possible. The curriculum should open as many doors as possible, and not channel the student into a particular path early.
6. Making a version of the “passionate pursuits” concept part of the curriculum is a good idea.

Other important documents for consideration as the curriculum is finalized include the reports from previous faculty retreats and the paper recently written by President Miller and presented at Union College. A collection of these materials will be supplied to the CDMB.