For office use: Proposal Progression
_____CC _____FAC
Approved by FAC _____ WUCRSL: _____

Quantitative Analysis Course Proposal

Date of Proposal: _____ Department Submitting: _____

Proposed by: _____ Email Address: _____

(The person proposing the course will be contacted after the Curriculum Committee reviews the proposal)

Proposed Quantitative Analysis Course:

Dept (L#)	Course #	Title	Last Offered	Frequency

(last offered could be the current or future semester)

ATTACH A COMPLETE SYLLABUS AND A FEW SPECIFIC PROBLEMS OR ASSIGNMENTS OF THE TYPE AND LEVEL OF DIFFICULTY APPROPRIATE FOR THIS COURSE.

Approximately how many students can you accommodate in this course per year? [ ]

Quantitative Analysis Guidelines:
All students will be required to take at least one course that gives attention to the understanding, analysis, and evaluation of numerical and other quantitative data. No single course will cover all important aspects of numeracy, but courses proposed as satisfying the "QA" requirements should lead students to master a coherent group of quantitative skills appropriate to college-level scholarship. Exercises and examinations in QA courses should provide students frequent opportunity to apply quantitative analysis skills to course-related problems.

Any department in which methods of quantitative analysis play an important part may offer such courses; we expect students to be particularly interested in courses that give discipline-specific instruction in quantitative analysis. A science course that makes use of mathematics in modeling physical laws might serve well as a QA course, as might a course that investigates the development of basic statistical models in Economics or Psychology. In some cases, mathematics may make up the bulk of the QA course; in others, they may be only a part of the treatment of a larger body of material. All courses that devote substantial attention to the principles of quantitative analysis will satisfy this requirement, no matter how advanced.

The following elements of numeracy constitute a core set of quantitative skills; a course proposed as satisfying the QA requirement should develop students' mastery of several of these elements:

- Representing information: tables, graphs, formulae
- Working with graphs: slopes, linear vs. non-linear effects
- Choosing and converting units of measurement
- Understanding exponential growth and decay
- Constructing deductive and inductive proofs
- Using elementary logic and its traditional terminology
- Describing central tendency (mean, median), order statistics (percentiles), and dispersion (variance, standard deviation)
- Analyzing correlation and regression
- Calculating probability
- Conducting statistical hypothesis tests
- Taking derivatives and performing integration
- Manipulating mathematical descriptions of curves and solids
- Distinguishing independent and dependent variables
- Distinguishing correlation and causation

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What portion of the course will be devoted specifically to teaching elements of quantitative analysis?

Which elements of numeracy will the students in this course be expected to master?

List the type of majors for which this an appropriate QA course?

What prerequisites, mathematical (algebra, trigonometry, calculus) or other, are recommended for this course?

Additional notes: use this area to describe any other information about the course that will be helpful to students and advisors.

Department Chair or Program Director Signature Date

PLEASE PROVIDE A SYLLABUS including at minimum, 1) a substantial course description, 2) a list of texts and/or readings, 3) a list of topics to be covered, 4) a schedule of major assignments and exams, and 5) criteria for evaluating student work. Return this form to the Curriculum Coordinator in the College Office, Campus Box 1117.