

Proposal for a General Education
REQUIRED CORE MATHEMATICAL AND QUANTITATIVE REASONING COURSE

Please use one form per course proposal.

Department or Departments: **Mathematics**

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This is a X new or an ___ existing course. (Please mark with X)

This is a ___ Capstone or ___ Synthesis course. (Please mark with X)

Course Number: **MATH 128** Course Title: **Mathematical Design**

Pre-requisites (if any): MATH 115 or the equivalent

For what majors, if any, does this course satisfy a requirement? None

With what courses, if any, is this course cross-listed? None

All Queens College General Education courses must satisfy the following two criteria.

1. Address how, in the discipline (or disciplines) of the course, data and evidence are construed and knowledge is acquired; that is, how questions are asked and answered.

Students will be solving design problems algorithmically, which involves exploring alternative approaches, establishing correctness and, when the design does not meet intentionality, discovering remedies.

2. Position the discipline(s) in the liberal arts curriculum and the larger society.

The knowledge of Mathematics is a fundamental component of a liberal education. This course is the intersection of Mathematics, Computing, and Design shows that mathematics is a basis for concepts that are not only the life, social, and natural sciences.