

Draft of revised GUR in Computing and Mathematics from Computing/Math GUR Task Force (Amitabha Bose, Barry Cohen, Asokan Anandarajan, Maurie Cohen, Yuan Ding, Andrzej Zarzycki).

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## Philosophy

### Computing Sciences

An understanding of the nature of computing, its impact on society and the driving forces behind its pervasive deployment is integral to effective functioning as a professional and as a citizen. Each student should learn to use software and computing systems and to access, store, process and analyze information as an essential aspect of critical thinking and problem solving. Depending on the discipline, the student should also develop an ability to design algorithms, to write programs, and to use software tools.

### Mathematics

The ability to reason qualitatively and quantitatively, to understand probability, and to apply mathematical models to a variety of circumstances is fundamental to making informed decisions in the modern world. Depending on the discipline, the student should also be able to apply calculus and numerical methods to the solution of problems in their professional domain.

## Requirements

### Computing Sciences

At least three (3) credits in an introductory course in the computing sciences (CS 101, CS 103, CS 104, CS 111, CS 113, CS 115, IS 118, BNFO 135, CS 1xx).

### Mathematics

At least six (6) credits of mathematics. This can be satisfied by a two-semester sequence (MATH 1xx, 1xy). It may also be satisfied by one from MATH 111, MATH 113, MATH 138 and one from MATH 105, MATH 114, MATH 225, MATH 244, MATH 279, MATH 305, MATH 333, IE 331, ECE 321, MNET315.

## CHANGES

Computing. Reworded philosophy section. Minimum credit hours changed from two to three. BNFO 135 and CS 1xx added as satisfying courses. The Committee recommends the development of

additional computing courses (CS 1xx) designed specifically for students in non- technical fields of study.

Mathematics. Reworded philosophy section. The Committee recommends the development of a two semester, six credit sequence (MATH 1xx,1xy) in mathematics designed for students in non- technical fields of study, which will include the basic knowledge specified in the philosophy section.