# **MATHEMATICS (COURSE 18)**

#### **Summer Session Representative**

Theresa Cummings (*galina@math.mit.edu*) Room 2-110 617-253-4977

Current MIT students can take arranged-unit subjects such as UROP, Special Studies, Research, Internship, Co-op, Independent Study, Thesis Preparation, or Thesis during the Summer Session by prior arrangement with a faculty member.

The following subjects have subsidized tuition: 18.999 Research in Mathematics and 18.THG Graduate Thesis. See Tuition (*https://catalog.mit.edu/summer/tuition-financial-aid*) for details of the policy concerning these subjects.

## **General Mathematics**

### 18.085 Computational Science and Engineering I

Subject meets with 18.0851 Prereq: Calculus II (GIR) and (18.03 or 18.032) U (Fall, Spring, Summer) 3-0-9 units 06/10/2024-08/23/2024, M, W, F 9:30 AM - 11:00 AM, 2-131

Review of linear algebra, applications to networks, structures, and estimation, finite difference and finite element solution of differential equations, Laplace's equation and potential flow, boundary-value problems, Fourier series, discrete Fourier transform, convolution. Frequent use of MATLAB in a wide range of scientific and engineering applications. *Summer: R.A. Candia, S. Lee* 

#### 18.089 Review of Mathematics

Prereq: Permission of instructor G (Summer) 5-0-7 units 06/03/2024-07/12/2024, M, T, W, Th, F 12:30 - 2:30 PM, 2-132

One-week review of one-variable calculus (18.01), followed by concentrated study covering multivariable calculus (18.02), two hours per day for five weeks. Primarily for graduate students in Course 2N. Degree credit allowed only in special circumstances. *Summer: G.L. Richard*