DOCTORAL PROGRAMS IN COMPUTATIONAL SCIENCE AND ENGINEERING

Computational Science and Engineering (*https://catalog.mit.edu/ interdisciplinary/graduate-programs/computational-science-engineering*)

Doctor of Philosophy in Computational Science and Engineering

Program Requirements

Core Subjects		
18.335[J]	Introduction to Numerical Methods	12
CSE.900	Doctoral Seminar in Computational Science and Engineering	3
Core Area of Study		
Choose four 12-unit subjects from these six core CSE areas: [1]		48
Discretization and numerical methods for partial differential equations		
Optimization methods		
Statistics and data-driven modeling		
High-performance computing and/or algorithms		
Mathematical foundations (e.g., functional analysis, probability)		
Modeling (i.e., a subject that treats mathematical modeling in any science or engineering discipline)		
Computational Concentration [1]		**24**
Unrestricted Electives		**24**
Choose 24 units of additional graduate-level subjects in any field.		
Thesis Research		**168-288**
Total Units		**279-399**

[1]   A program of study comprising subjects in the selected core areas and the computational concentration must be developed in consultation with the student's doctoral thesis committee and approved by the CCSE graduate officer.