

Department of Software Engineering
 Building 70 # 1690
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Application Domain Description

UNDERGRADUATE

Name of domain: Computational Mathematics

Computational mathematics prepares students for a career that incorporates extensive software engineering and computer science skills to solve mathematically modeled physical problems.

Courses		
<i>Course number</i>	<i>Course title</i>	<i>Prerequisites</i>
	At least 2 of the following:	
1016-305	Multivariable Calculus	1016-283
1016-306	Differential Equations	1016-283
1016-318	Matrices and Boundary Value Problems	1016-305, 306
1016-328	Engineering Mathematics	1016-305, 306
1016-331	Matrix Algebra	1016-305 or 1016-366
1016-351	Probability and Statistics I	1016-283
1016-407	Dynamical Systems	1016-306
1016-412	Real Variables II	1016-411
1016-420	Complex Variables	1016-305
1016-437	Computer Methods in Applied Math	1016-305, 306, 331
1016-461	Mathematical Modeling	1016-305, 306, 331, 352
1016-465	Linear Programming	1016-432
1016-485	Number Theory	1016-265
	At least 1 of the following:	
1016-411	Real Variables I	1016-305, 265
1016-432	Linear Algebra	1016-331
1016-467	Graph Theory	1016-265
1016-531	Abstract Algebra I	1016-265, 432

Domain Prerequisites	
<i>Course number</i>	<i>Course title</i>
1016-283	Calculus III (required SE)
1016-366	Discrete Mathematics II (required SE)

Considerations

Note that in most cases you may earn a minor in mathematics by taking only 2 more math courses.

Before you start on an application domain you should work through the impacts on your schedule.

Computation Mathematics Application Domain v 1.1

Last updated: 29 January 2008.

There may be a need to coordinate your co-op blocks based on the quarters in which courses are typically offered as well as considering course pre-requisite chains required within the application domain. Be sure to check with the sponsoring department to obtain the latest information on course prerequisites, scheduling, and registration constraints. Before embarking on a minor you should meet with the department sponsoring the minor to review their current minor requirements, register for the minor, and review scheduling strategies.

Last reviewed: 28 September 2007