Applied Math Courses for the MS, DPhD and PhD Plans of Study

School of Mechanical Engineering

MS programs require a minimum of six hours of applied math courses. At least one of these must be a MA 50000 or 60000 level course. Three hours may be from the list of approved applied math courses offered in other departments at Purdue, listed below.

DPhD and PhD degree programs require a minimum of nine hours of applied math courses. At least two courses must be MA 50000 or 60000 level courses. Math courses taken during the MS may be included as PhD applied math courses.

Approved courses that may be used for the POS “applied math” course requirements:

Courses in ME:

- ME 58000 Nonlinear Engineering Systems
- ME 58100 Numerical Methods in Mechanical Engineering
- ME 61200 Continuum Mechanics
- ME 68100 Finite & Boundary Element Methods
- ME 61400 Computational Fluid Dynamics
- ME 60800 Numerical Methods in Heat, Mass and Momentum Transfer

Courses from Other Schools:

- CE 59500 Finite Elements in Elasticity
- ECE 60000 Random Variables and Signals
- ECE 60200 Lumped System Theory
- STAT 51400 Design of Experiments
- STAT 51100 Statistical Methods
- STAT 51200 Applied Regression Analysis
- STAT 52200 Sampling & Survey Techniques
- A&AE 51200 Computational Aerodynamics
- A&AE 51600 Computational Fluid Mechanics
- A&AE 55300 Elasticity in Aerospace Engineering
- A&AE 55800 Finite Element Methods in Aerospace Structures
- A&AE 60300 Theoretical Methods in Engineering Science I
- A&AE 60400 Theoretical Methods in Engineering Science II
- PHYS 60000 Methods of Theoretical Physics I
- PHYS 60100 Methods of Theoretical Physics II

Note:
Multiple classes should not cover similar material, therefore, some combination of courses may not be allowed on the plan of study.

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