

# Catalog of Postgraduate Programs and Curricula

## Curriculum for PhD(PHYS) (For students admitted in 2010-11)

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### Program Requirements for Doctor of Philosophy (PhD) Program in Physics

#### *Credits*

1. To complete **at least 12 credits** of approved physics PG courses.
2. A student with a first degree in an area other than Physics may be required to take additional courses.

#### *Postgraduate Seminar*

To register in PHYS 600 *Physics Seminar* for 2 semesters, and PHYS 601 *Survey of Departmental Research* in the first Fall semester of studies.

#### *Qualifying Examination*

To pass a qualifying examination set by the Department within the first 2 years of studies.

#### *Research and PhD Thesis Examination*

1. To conduct research and enroll in PHYS 799 *Doctoral Thesis Research*; and
2. To defend the PhD thesis successfully.

#### *Concentration*

In addition to the existing program requirements, students who opt for the **Scientific Computation concentration** are required to:

- Complete MATH 6915 (1-credit), which cannot be counted toward the credit requirements;
- Complete one computation related course from the list below as a part of the 12 credits of required coursework:

MATH	5311	<i>Advanced Numerical Methods I</i>
MATH	5312	<i>Advanced Numerical Methods II</i>
MATH	5350	<i>Computational Fluid Dynamics for Inviscid Flows</i>
MATH	5360	<i>Weather, Climate and Pollution</i>
CHEM	5210	<i>Computational Chemistry</i>
PHYS	5410	<i>Numerical Modeling in Physics</i>

- Conduct research in the area of scientific computation; and
- Give a one-hour seminar on the related research within their first four regular terms of study.