

# PHYSICS: QUANTUM COMPUTING, MS

## REQUIREMENTS

### MINIMUM GRADUATE SCHOOL REQUIREMENTS

Review the Graduate School minimum academic progress and degree requirements (<http://guide.wisc.edu/graduate/#policiesandrequirements>), in addition to the program requirements listed below.

### NAMED OPTION REQUIREMENTS

#### MODE OF INSTRUCTION

Face to Face	Evening/ Weekend	Online	Hybrid	Accelerated
Yes	No	No	No	No

#### Mode of Instruction Definitions

**Accelerated:** Accelerated programs are offered at a fast pace that condenses the time to completion. Students typically take enough credits aimed at completing the program in a year or two.

**Evening/Weekend:** Courses meet on the UW–Madison campus only in evenings and/or on weekends to accommodate typical business schedules. Students have the advantages of face-to-face courses with the flexibility to keep work and other life commitments.

**Face-to-Face:** Courses typically meet during weekdays on the UW–Madison Campus.

**Hybrid:** These programs combine face-to-face and online learning formats. Contact the program for more specific information.

**Online:** These programs are offered 100% online. Some programs may require an on-campus orientation or residency experience, but the courses will be facilitated in an online format.

### CURRICULAR REQUIREMENTS

#### Requirement Detail

Minimum Credit Requirement 30 credits

Minimum Residence Credit Requirement 16 credits

Minimum Graduate Coursework Requirement 15 credits must be graduate-level coursework. Refer to the Graduate School: Minimum Graduate Coursework (50%) Requirement policy: <https://policy.wisc.edu/library/UW-1244/>.

Overall Graduate GPA Requirement 3.00 GPA required. Refer to the Graduate School: Grade Point Average (GPA) Requirement policy: <https://policy.wisc.edu/library/UW-1203/>.

Other Grade Requirements n/a

Assessments and Examinations n/a

Language Requirements n/a

### REQUIRED COURSES

Code	Title	Credits
<b>Fall</b>		
PHYSICS 701	Graduate Introductory Seminars	1
PHYSICS 709	Introduction to Quantum Computing	3
PHYSICS 531 or PHYSICS 731 or PHYSICS 448 or PHYSICS 545	Introduction to Quantum Mechanics Quantum Mechanics Atomic and Quantum Physics Introduction to Atomic Structure	3
PHYSICS elective: Any PHYSICS course numbered 300 or above.		3
PHYSICS or other elective: Any PHYSICS course numbered 300 or above; courses outside of PHYSICS must be approved by the MS Physics–Quantum Computing program.		3
<b>Spring</b>		
PHYSICS 779	Advanced Quantum Computing	3
PHYSICS 551 or PHYSICS 751 or PHYSICS 449 or PHYSICS 732	Solid State Physics Advanced Solid State Physics Atomic and Quantum Physics Quantum Mechanics	3
PHYSICS or other elective: Any PHYSICS course numbered 300 or above; courses outside of PHYSICS must be approved by the MS Physics–Quantum Computing program.		6
<b>Summer</b>		
PHYSICS 707	Quantum Computing Laboratory	4
PHYSICS 799	Independent Study	1
<b>Total Credits</b>		<b>30</b>

Students in this program may not take courses outside the prescribed curriculum without faculty advisor and program director approval. Students in this program cannot enroll concurrently in other undergraduate or graduate degree programs.