

# Requirements - M.S. in Physics

Candidates must complete a minimum of 30 credit hours of advanced lecture courses (numbered 500 or above) in physics and related subjects. These courses must include the following:

1. Within 12 months of entering the program the student must fulfill [the undergraduate physics certification requirement](#) for all graduate degrees.
2. Three basic courses.
  - **PHSX 711** Quantum Mechanics I
  - **PHSX 821** Classical Mechanics
  - **PHSX 831** Electrodynamics I
3. Two additional courses chosen from.
  - **PHSX 815** Computational Physics and Astronomy
  - **PHSX 721** Chaotic Dynamics
  - **PHSX 741** Nuclear Physics I
  - **PHSX 761** Elementary Particles I
  - **PHSX 781** Solid State Physics I
  - **PHSX 793** Physical Cosmology
  - **PHSX 795** Space Plasma Physics
4. At least two hours of PHSX 899 Master's Research.
5. All graduate students, after their first semester, will deliver at least one oral presentation per semester. The guidelines are listed [here](#).

**The following limitations apply to courses presented to satisfy the Master's degree requirements.**

6. A maximum of 6 hours of PHSX 899 may be counted toward the degree. Ordinarily no more than 2 hours will be allowed unless a thesis or written report is presented.
7. The remaining 9 to 13 hours of advanced electives must be either advanced lecture courses or advanced undergraduate laboratory courses. (This proviso excludes seminars and special problems courses.) Candidates must pass a general oral examination in physics. The examination is given shortly before completion of other work for the degree. A master's thesis is not required, but may be submitted if the candidate and the director of the candidate's research believe it to be appropriate.