

PHYSICS: RESEARCH, MS

This is a named option within the Physics MS (<https://guide.wisc.edu/graduate/physics/physics-ms/>). The master of science research degree program in physics requires the completion of a directed master's project and thesis in the student's area of interest, 30 credits of graduate work (including the core course requirements), and passage of the qualifying examination at the master's level. It is designed to strengthen the student's background and experience in physics, and enhance the opportunities for employment as a physicist or in physics education.

The research program in physics is unusually broad in scope with active experimental and theoretical research programs in astrophysics; atomic, molecular, and optical physics; biophysics; condensed matter physics; elementary particle physics; nuclear physics; particle physics theory; phenomenology; and plasma physics. This broad range of research opportunities makes the department especially attractive to beginning students who have not yet chosen a field of specialization.

Research specialties include:

THEORETICAL PHYSICS

Astrophysics; atomic, molecular, and optical physics; condensed matter physics; cosmology; elementary particle physics; nuclear physics; phenomenology; plasmas and fusion; quantum computing; statistical and thermal physics; string theory.

EXPERIMENTAL PHYSICS

Astrophysics; atomic, molecular, and optical physics; biophysics; condensed matter physics; cosmology; elementary particle physics; neutrino physics; experimental studies of superconductors; medical physics; nuclear physics; plasma physics; quantum computing; spectroscopy.