



# Physics

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## Physics Courses

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### **PHYS 6030 Electronics for Teachers (3 credits)**

For science and mathematics teachers licensed in Minnesota to upgrade their licensures to teach physics. The instructional format is hands-on lab-based, with students creating and analyzing breadboard circuits and the instructor providing explanations of technique and theory on an as-needed basis. Covers a broad survey of practical topics, with students wiring up several common circuits of practical usefulness as well as relevance in the high school classroom. Prerequisites: One year of introductory physics and Minnesota teaching license in science or mathematics.

### **PHYS 6050 Modern Physics for Teachers (3 credits)**

For science and mathematics teachers licensed in Minnesota to upgrade their licensures to teach physics. An introduction to modern physics (1900 to present). Prerequisites: One year of introductory physics and Minnesota teaching license in science or mathematics.

## All-University Courses

The course numbers listed below, not always included in the semester class schedule, may be registered for by consent of the advisor, instructor, or department chair, or may be assigned by the department when warranted. Individual registration requires previous arrangement by the student and the completion of any required form or planning outline as well as any prerequisites.

1910, 2910, 3910, 4910 DIRECTED INDEPENDENT STUDY

1920, 2920, 3920, 4920 DIRECTED GROUP STUDY

1930, 2930, 3930, 4930 EXPERIMENTAL COURSE

1940, 2940, 3940, 4940 IN-SERVICE COURSE

1950, 2950, 3950, 4950 WORKSHOP, INSTITUTE, TOUR

1960, 2960, 3960, 4960 SPECIAL PURPOSE INSTRUCTION

1970, 2970, 3970, 4970 INTERNSHIP

1980, 2980, 3980, 4980 RESEARCH

1990, 2990, 3990, 4990 THESIS