

## **Physics Certification (7-12)**

Students pursuing Physics Certification (7-12) through a UNH teacher education program must possess an undergraduate degree with a major in Physics. Or possess an undergraduate degree that includes coursework equivalent to an undergraduate major in Physics (typically 40-48 credits or 10-12 courses).

### **BS Physics course requirements**

PHYS 400 Freshman Seminar  
 PHYS 406 Astronomy  
 PHYS 407&408 General Physics I & II  
 PHYS 505&506 General Physics III Lecture and Lab  
 PHYS 508 Thermodynamics and Statistical Mechanics  
 PHYS 605 Experimental Physics I  
 PHYS 615&616 Classical Mechanics and Mathematical Physics I & II  
 PHYS 701&702 Quantum Mechanics I & II  
 PHYS 703&704 Electricity and Magnetism I & II  
 PHYS 705 Experimental Physics II

#### ***Two Physics courses listed below:***

PHYS 708 Optics, PHYS 710 Modern Astrophysics, PHYS 712 Space Plasma Physics, PHYS 718 Condensed Matter Physics *or* PHYS 720 Nuclear Physics  
 CHEM 403 & 404 General Chemistry I&II *or* Chem 405 Chemical Principles for Engineers  
 MATH 425 & 426 Calculus I & II  
 MATH 527 Differential Equations w/ Linear Algebra & Math 528 Multidimensional Calculus *or* Math 525&526 Linearity I & II  
 CS 410 Introduction to Scientific Programming

### **Education course requirements**

\*EDUC 500/935A Exploring Teaching  
 EDUC 605 Educational Perspectives in Critical Times  
 EDUC 701/801 Human Development & Learning: Educ Psyc  
 EDUC 707/807 Teaching Reading through the Content Areas  
 EDUC 751B/851B Educating Exceptional Learners: Secondary  
 EDUC 791/891 Methods of Teaching Secondary School Science  
 EDUC 900A & EDUC 901A Internship & Seminar in Teaching (2 semesters Fall and Spring)  
 \*Indicates course work must be completed before the internship

### **BA Physics course requirements**

PHYS 400 Freshman Seminar  
 PHYS 406 Astronomy  
 PHYS 407&408 General Physics I & II  
 PHYS 505&506 General Physics III Lecture & Lab  
 PHYS 508 Thermodynamics and Statistical Mechanics  
 PHYS 605 Experimental Physics I  
 PHYS 615&616 Classical Mechanics and Mathematical Physics I & II  
 PHYS 701 Quantum Mechanics I  
 PHYS 703 Electricity and Magnetism I  
 PHYS 705 Experimental Physics II  
 Note: MATH 425, 426, 525, 526, or 527, 528 are prerequisites for some courses.

### **Education course requirements**

\*EDUC 500/935A Exploring Teaching  
 EDUC 605  
 \* EDUC 701/801 Human Development & Learning: Educ Psyc  
 EDUC 707/807 Teaching Reading through the Content Areas  
 EDUC 751B/851B Educating Exceptional Learners: Secondary  
 EDUC 791/891 Methods of Teaching Secondary School Science  
 EDUC 900A & EDUC 901A Internship & Seminar in Teaching (2 semesters Fall and Spring)  
 \* Indicates course work must be completed before the internship

Any Education course taken for a teacher licensure requirement must be completed with a grade of **B-** or better. This applies to any courses from other departments that have been designated as equivalent to an Education course.

#### **Degrees (Minimum of 32 Graduate credits)**

M.Ed. In addition to the 12 credit internship, 10 graduate credits must be UNH Education courses. The remaining graduate credits can be in Education, Physics or another department.

M.A.T. In addition to the 12 credit internship, three graduate level courses (9-12 credits) must be in Physics. The remaining graduate credits can be in Physics, Education or another department.

Admission to the M.Ed. or M.A.T. is competitive and requires submission of an application to the UNH Graduate School. This includes official transcripts, scores from the Praxis Core exam, personal statement and three letters of recommendations. Thirty-two (32) Graduate credits are the minimum for either degree.

For questions regarding Physics course requirements contact Professor Dawn Meredith at [dawn.meredith@unh.edu](mailto:dawn.meredith@unh.edu)

For questions regarding Education course requirements contact Cindy Glidden at [cindy.glidden@unh.edu](mailto:cindy.glidden@unh.edu)

**Physics course requirements for students who have completed a baccalaureate degree at a school other than UNH**  
Students seeking certification as teachers of Physics through a UNH teacher education program must possess an undergraduate degree with a major in Physic. Or possess an undergraduate degree that includes coursework equivalent to an undergraduate major in Physics (typically 40-48 credits or 10-12 courses).

PHYS 406 Astronomy

Equivalent course\_\_\_\_\_

PHYS 407&408 General Physics I & II

Equivalent course\_\_\_\_\_

PHYS 505&506 General Physics III Lecture and Lab

Equivalent course\_\_\_\_\_

PHYS 508 Thermodynamics and Statistical Mechanics

Equivalent course\_\_\_\_\_

PHYS 605 Experimental Physics I

Equivalent course\_\_\_\_\_

PHYS 615&616 Classical Mechanics and Mathematical Physics I & II

Equivalent course\_\_\_\_\_

PHYS 701&702 Quantum Mechanics I & II

Equivalent courses\_\_\_\_\_

PHYS 703&704 Electricity and Magnetism I & II

Equivalent courses\_\_\_\_\_

PHYS 705 Experimental Physics II

Equivalent course\_\_\_\_\_

***Two Physics courses listed below:***

PHYS 708 Optics, PHYS 710 Modern Astrophysics, PHYS 712 Space Plasma Physics,

PHYS 718 Condensed Matter Physics **or** PHYS 720 Nuclear Physics

Equivalent courses\_\_\_\_\_

CHEM 403 & 404 General Chemistry I&II **or** CHEM 405 Chemical Principles for Engineers

Equivalent courses\_\_\_\_\_

MATH 425 & 426 Calculus I & II

Equivalent courses\_\_\_\_\_

MATH 527 Differential Equations w/ Linear Algebra & Math 528 Multidimensional Calculus

**or** Math 525&526 Linearity I & II

Equivalent course\_\_\_\_\_

CS 410 Introduction to Scientific Programming

Equivalent course\_\_\_\_\_