

Science Education

Introduction

The B.S. in Science Education program at UW-Stout prepares students for a career in teaching science at the middle school and secondary levels. To complete the program, students are required to take general education courses, science courses, professional education courses, and several field experiences.

Students choose a science teaching major certification in broadfield science, biology, chemistry, or physics and a science teaching minor certification in biology, chemistry, or physics. The science teaching major certifications require 28 credits of science, and the science teaching minor certifications require 18 credits of science. These courses include required and elective science courses to provide students with flexibility in pursuing a wide variety of courses in each science discipline.

The broadfield science major certification includes courses in biology, chemistry, physics, and earth science. It certifies teachers to teach any science course from grades five through ten. To teach eleventh and twelfth grade courses in biology, chemistry, or physics, science teachers must be certified in those specific subject areas with either a major or minor certification. The broadfield science major certification is recommended for those teachers most interested in teaching at the middle school level. It can also be advantageous at very small high schools where science teachers teach many different science courses.

Science teaching is a highly rewarding career that is also a high demand profession. For a successful career in science teaching, you should have an aptitude for helping others and a love of science. According to the National Education Association (NEA) and Wisconsin Department of Public Instruction (DPI), there is currently a national and state wide shortage of science teachers. Completing a BS in Science Education degree at UW-Stout will lead to a rewarding career and valuable contribution to individuals and society.

General Requirements

Bachelor of Science Degree

Total for graduation	120-130 credits
General Education	41 credits
Major Studies	79-89 credits

Teacher Education Requirements

Students proceed through a series of three benchmarks as they move toward licensure.

Benchmark I: Acceptance into Teacher Education

Teacher education students will begin fulfilling their requirements for Benchmark I as they complete their first 40 credits. Detailed information is online at: www.uwstout.edu/soe/students/requirements-benchl.shtml.

- ▶ Pass the Pre-Professional Skills Test (PPST)
- ▶ Attain a 2.75 cumulative grade point average
- ▶ Pass the required teacher background check
- ▶ Earn a grade of at least 2.00 (C) in ENGL-101 and ENGL-102 or ENGL-111 and ENGL-112.
- ▶ Earn a minimum grade of 2.00 (C) in SPCOM-100 Fundamentals of Speech.
- ▶ Earn a minimum grade of 2.00 (C) in STMED-160 Introduction to Technology and Science Education
- ▶ Complete EDUC-326 Foundations of Education
- ▶ Complete General Education Technology requirement
- ▶ Satisfactory rating on Benchmark I Portfolio Assessment rubric
- ▶ Satisfactory rating on Benchmark I Student Interview

Benchmark II: Application for Student Teaching

Benchmark II must be completed prior to student teaching. Detailed information is online at: www.uwstout.edu/soe/students/requirements-benchl.shtml.

- ▶ Complete Application for Student Teaching form
- ▶ Maintain a 2.75 grade point average
- ▶ Pass Content Knowledge Exam (*Praxis II*)
- ▶ Receive clearance through an updated background check
- ▶ Complete a satisfactory tuberculosis (TB) test
- ▶ Receive satisfactory portfolio assessment by faculty
- ▶ Receive satisfactory rating on Benchmark II Student Interview
- ▶ Submit copies of resume to the School of Education prior to student teaching

Benchmark III: Program Completion

Benchmark III must be completed before you can be recommended for licensure. Detailed information is online at: www.uwstout.edu/soe/students/requirements-benchl.shtml.

- ▶ Complete electronic portfolio and receive a basic or higher proficiency level of assessment
- ▶ Complete all program coursework
- ▶ Meet all program-specific requirements
- ▶ Student teach at two levels: Middle School and High School.
- ▶ Receive a satisfactory student teaching assessment

Program Requirements

General Education

41 credits required

A. Communication Skills 8 Credits

ENGL-101 Freshman English – Composition or	
ENGL-111 Freshman English – Honors I	3
ENGL-102 Freshman English – Reading/Related Writing or	
ENGL-112 Freshman English – Honors II	3
SPCOM-100 Fundamentals of Speech	2

B. Analytic Reasoning 7 Credits

MATH-153 Calculus I	4
STAT-320 Statistical Methods	3

C. Health and Physical Education 2 Credits

Courses must be from areas of health, physical education or nutrition.

D. Humanities and the Arts 9 Credits

HIST-210 Modern World	3
LIT-XXX Any Literature	3
XXX-XXX Any Creative/Performing Arts	1-3
XXX-XXX Other Humanities and Fine Arts	0-2

E. Social and Behavioral Sciences 9 Credits

POLS-210 American Government	3
PSYC-110 General Psychology	3

Remaining course must be from areas of anthropology, economics, geography, or sociology.

F. Natural Sciences (with Lab) 4 Credits

BIO-111 Science, Society and the Environment	4
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G. Technology 2 Credits

Major Studies

79–89 credits required

Professional Education 13 Credits

EDUC-303 Educational Psychology	3
EDUC-326 Foundations of Education	2
EDUC-336 Multiculturalism: Issues and Perspectives	2
EDUC-376 Field Experience – Cross Cultural Experience	1
EDUC-382 Secondary Reading and Language Development	2
SPED-430 Inclusion of Students with Exceptional Needs	3

Science, Technology and Mathematics Education 30 Credits

STMED-160 Introduction to Technology and Science Education	3
STMED-260 Curriculum, Methods, and	
Assessment for Science and Technology I	3
STMED-XXX Pre-Student Teaching	1
STMED-390 Laboratory and Classroom Management	
in Science and Technology	3
STMED-XXX Curriculum, Methods and	
Assessment for Science and Technology II	3
STMED-XXX Capstone Seminar	1
STMED-XXX Student Teaching	16

Science Courses

36-46 Credits

Students must complete a least one **major** science certification and one different **minor** science certification.

Broadfield Science Major Certification

BIO-135 Organismal Biology	4
CHEM-135 College Chemistry I	5
CHEM-136 College Chemistry II	5
PHYS-241 College Physics I	5
PHYS-242 College Physics II	5
PHYS-255 Meteorology	2
PHYS-258 Introduction to Geology	2

Biology Major Certification

BIO-135 Organismal Biology	4
BIO-136 College Molecular Cell Biology I	5

Additional 19 credits of biology above the introductory level.

Chemistry Major Certification

CHEM-135 College Chemistry I	5
CHEM-136 College Chemistry II	5

Additional 18 credits of chemistry above the introductory level.

Physics Major Certification

PHYS-241 College Physics I	5
PHYS-242 College Physics II	5

Additional 18 credits of physics above the introductory level.

Biology Minor Certification

BIO-135 Organismal Biology	4
BIO-136 College Molecular Cell Biology I	5

Additional 9 credits of biology above the introductory level.

Chemistry Minor Certification

CHEM-135 College Chemistry I	5
CHEM-136 College Chemistry II	5

Additional 8 credits of chemistry above the introductory level.

Physics Minor Certification

PHYS-241 College Physics I	5
PHYS-242 College Physics II	5

Additional 8 credits of physics above the introductory level.