

BIOLOGY EDUCATION

Subject endorsement to teach grades 7-12

The living and breathing world is vast – people, plants, and animals, all over the planet. As a future biology teacher, you will be an important part of students' lives as you guide them through the massive world of the study of biology. You'll help them discover what things make up living beings and what they need to survive. Wayne State is an excellent setting to develop your understanding of biology while also learning how to become a teacher. The Biology Education endorsement at Wayne State prepares students for teaching grades 7-12. With a Biology Education degree, you'll be equipped to teach the next generation all about life.

In addition to the Biology subject endorsement, you will also need to select a second subject endorsement in order to receive your B.A. or B.S.

fast facts

Credit hours: 75-76

Students must also take 30 credit hours of General Studies courses. A total of 120 credit hours are needed to graduate from WSC. Additional majors or minors can be added to help meet graduation requirements.

Degree options: B.A. or B.S.

Departments: Life Sciences; Educational Foundations and Leadership

Schools: Science, Health, and Criminal Justice; Education and Behavioral Sciences

Popular pairings: Coaching, Chemistry Education

focus on results

Skills Learned

- Introductory zoology
- Evolutionary processes
- Biological systems and structures
- Experimental plant science
- Molecular genetics
- General chemistry and physics
- Research, data collection, and analysis
- Modern lab techniques
- Teaching and instruction methods
- Curriculum development for grades 7-12
- Classroom management and leadership

Possible Careers

- Biology teacher
- Science teacher
- Zoology teacher
- STEM specialist
- Research scientist
- Biomedical sales
- Nature conservation specialist
- Vet assistant
- Botanist
- Lab scientist
- Biologist

Types of Employers

- Middle schools
- High schools
- Colleges and universities
- Educational and learning centers
- Distance-learning centers
- Non-profit organizations
- Community organizations
- Government / federal agencies
- Laboratories
- Research labs
- Pharmaceutical companies

outside the classroom

Activities / Opportunities

- Northeast Nebraska Teacher Academy (NENTA)
- Conduct research projects
- Conferences and presentations
- Peer mentoring and tutoring
- Service-Learning
- Study Abroad

Clubs / Organizations

- Biology Club
- Health Science Club
- Nebraska State Education Association (NSEA) Aspiring Educators
- Student Council for Exceptional Children (SCEC)
- The Wildlife Society



Visit www.wsc.edu/clubs to learn more about clubs and organizations on campus.



Courses and outcomes

2026-27 Academic Year

The following courses are required for the program of study described on this sheet. Every effort is made to ensure this information is current, but please be aware that some content may have changed. To develop a plan for registering and taking these courses, please consult the current academic catalog and your advisor.

Program courses

For CAT 3, take MAT 180 Applied Probability and Statistics.

Life Sciences Core Courses

BIO 110 Biology Concepts.....	4
CHE 106 General Chemistry I.....	4
PHY 321 Physics Laboratory I.....	1
Select one of the following.....	3-4
PHY 201 General Physics I (3)	
PHY 301 University Physics I (4)	

Biology Content Courses

BIO 200 Zoology.....	4
BIO 210 Experimental Plant Science.....	4
BIO 220 Human Anatomy.....	4
BIO 320 Molecular Genetics.....	4
BIO 325 Ecology.....	4
BIO 340 Human Physiology.....	4
BIO 370 Introduction to Research.....	2
BIO 393 Laboratory Techniques.....	1
BIO 425 Evolution.....	3

Professional Education Courses

EDU 150 Introduction to Professional Education.....	3
EDU 245 Preparing for Level 2: Teacher Candidacy.....	0
EDU 250 Human Development and Cognition.....	3
EDU 275 PK-12 Instructional Design.....	3
EDU 310 Reading, Writing, and Assessment in Content Areas.....	2
EDU 409 Content Area Methods and Assessment.....	3
EDU 414 Content Area Practicum Experience.....	1
EDU 445 Preparing for Level 3: Clinical Practice.....	0
EDU 456 Clinical Practice and Seminar for the Secondary School.....	12
SPD 302 Inclusion and Co-teaching in General Education.....	3
SPD 436 Classroom Management through Social Emotional Learning 7-12.....	3

Student learning outcomes

Biology programs

1. Students will be able to interpret core concepts in biology
2. Students will be able to apply concepts in biology to internships and/or student research
3. Students will be able to accurately communicate core concepts in biology

Education programs

Teacher candidates who successfully complete an education preparation program at Wayne State will be able to:

1. Create environments that support individual and collaborative learning using knowledge of how students grow and develop, along with individual differences and diverse cultures. (InTASC Standards 1-3)
2. Plan for instruction by applying content knowledge, a variety of instructional strategies, and multiple methods of assessment to connect concepts for learners in real-world applications. (InTASC Standards 4-8)
3. Engage in ongoing professional learning and use evidence to reflect on and adapt practice to meet the needs of each learner. (InTASC Standard 9)
4. Seek leadership roles and opportunities to take responsibility for student learning, to collaborate with stakeholders, and to advance the profession. (InTASC Standard 10)

biology faculty



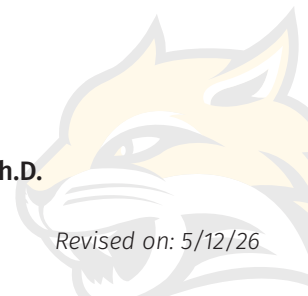
Visit www.wsc.edu/life-sciences-department to learn more about the Department of Life Sciences.

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