

SKILLED AND TECHNICAL SCIENCES EDUCATION

Field endorsement to teach grades 6-12

The Skilled and Technical Sciences (STS) Education endorsement prepares students for certification to teach the four career clusters of skilled and technical sciences to students in grades 6-12 in Nebraska. The career clusters of STS Education include architecture and construction; energy and engineering; manufacturing; and transportation, distribution, and logistics. As a teacher of the skilled and technical sciences, you'll be showing the next generation how to build things with their hands. You'll help them understand the concepts of manufacturing, construction, and transportation systems. You'll show them how to use the latest technology and software for production purposes. Furthermore, you'll get to use your passion for hands-on education and contribute to the next generation of builders and engineers.

If you choose the Skilled and Technical Sciences Education field endorsement, you are not required to choose any other endorsements to receive your B.A. or B.S.

fast facts

Credit hours: 81

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: Technology and Applied Science; Educational Foundations and Leadership

Schools: Business and Technology; Education and Counseling

Popular pairings: Coaching, Work-Based Learning

focus on results

Skills Learned

- Teaching and instruction
- Leadership and organization
- Communication and presentation
- Drafting and design
- Manufacturing processes and systems
- Construction technology and electronics
- Welding theory and fabrication
- Cabinetry and millwork
- Professional code of conduct

Possible Careers

- Industrial technology teacher
- Manufacturing technologies instructor
- Academic advisor
- Industrial technology trainer
- Vocational instructor
- Production manager
- Construction manager
- Residential drafter
- Superintendent

Types of Employers

- Middle schools
- High schools
- Business schools
- Colleges and universities
- Corporations
- Manufacturing companies
- Vocational schools
- Training centers
- Construction companies

outside the classroom

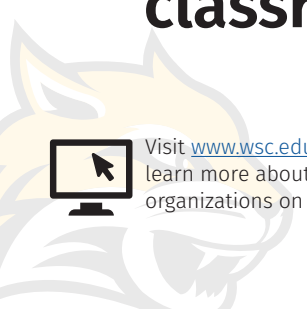
Activities / Opportunities

- Peer tutoring and mentoring
- Study Abroad
- Service-Learning
- Northeast Nebraska Teacher Academy (NENTA)

Clubs / Organizations

- Associated General Contractors of America (AGC)
- Drafting and Design Club
- Epsilon Pi Tau
- Nebraska State Education Association (NSEA) Aspiring Educators
- SkillsUSA

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



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

Skilled and Technical Sciences Content Courses

CED 417 Principles of Career Education.....	3
CED 423 Coordinating Techniques	3
CSC 378 Robotics	3
ITE 114 Introduction to Applied Engineering and Technology	3
ITE 202 Construction Systems.....	3
ITE 205 Introduction to Manufacturing Technology.....	3
ITE 210 Introduction to Energy, Power and Transportation Systems...	3
ITE 214 Residential Drawing.....	3
ITE 219 Mechanical and Engineering Drafting.....	3
ITE 300 Small Engines.....	3
ITE 307 Cabinetmaking and Millwork.....	3
ITE 308 Construction Technology.....	3
ITE 322 Fundamentals of CNC Machining.....	3
ITE 326 Technology Lab Design, Care, and Maintenance	3
ITE 330 Welding Theory and Fabrication	3
ITE 403 Electronics and Control Systems	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
SPD 302 Inclusion and Co-teaching in General Education.....	3
SPD 436 Classroom Management through Social Emotional Learning 7-12.....	3
EDU 456 Clinical Practice and Seminar for the Secondary School.....	12

Work experience: This endorsement is available only to those persons who have either A) 1,000 verified hours of paid work experience relevant to the career field; or B) at least 300 hours of supervised work experience relevant to the career field under the direction of the college.

Student learning outcomes

Industrial Technology programs

1. Demonstrate effective skills in written, oral, and graphical communication
2. Apply current technologies and tools to identify and solve problems in industrial settings
3. Implement occupational and personal safety, health, and well-being principles
4. Apply management and leadership skills in industrial technology

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)

industrial technology faculty



Visit www.wsc.edu/technology-applied-science-department to learn more about the Department of Technology and Applied Science.

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