Welcome Transfer Partners!

Missouri S&T Transfer Conference
February 23, 2022

Colin Potts
Executive Vice Chancellor for Academic Affairs and Provost
Professor, Computer Science
Professor, Psychology
Engineering
STeM
Experiential learning
Active learning
Engagement
Growth & Impact
Growth & Impact

Keri DeGraffenreid
Assistant Director for Admissions
Transfer Admissions and Student Success
Transfer Admissions

transfer@mst.edu
573-341-6731

Cody Mantle
Senior Admissions Counselor
cmantle@mst.edu
573-341-7257

Keri DeGraffenreid
Assistant Director
keri.degraffenreid@mst.edu
573-341-4159

Cathy Tipton
Director for Admissions
crowell@mst.edu
573-341-6731

Office of the Registrar

Shelly Maedgen
Angie Huffman
Julie Parker

transfercredit@mst.edu
573-341-4160
How We Rate

#2 Best Engineering University
College Factual, 2020-21

#4 Public University for Career Placement
Princeton Review, 2021

#8 University in the Nation for ROI
Business Insider, 2020

#9 Public University for Internships
Princeton Review, 2021

College of Arts, Sciences, and Business
Undergraduate Degree Programs

- Applied Mathematics
- Biological Sciences
- Business & Management Systems
- Chemistry
- Economics
- English and Technical Communication
- Education
- Environmental Science
- History
- Multidisciplinary Studies
- Philosophy
- Physics
- Psychology
- Information Science & Technology

Teacher Certifications
- Elementary Education
- Middle School
- Secondary Education

Pre-Professional
- Pre-Law
- Pre-Med
- Pre-Nursing
- Pre-Veterinary
College of Engineering and Computing
Undergraduate Degree Programs

• Aerospace Engineering
• Architectural Engineering
• Ceramic Engineering
• Chemical Engineering
• Civil Engineering
• Computer Engineering
• Computer Science
• Electrical Engineering
• Engineering Management
• Environmental Engineering
• Geological Engineering
• Geology and Geophysics
• Mechanical Engineering
• Metallurgical Engineering
• Mining Engineering
• Nuclear Engineering
• Petroleum Engineering

Minors in Biomedical Engineering and Humanitarian Engineering and Science

2021 New Transfer Students

• 278 in 2021
  (45 Spring, 233 Fall)
• 3.28 Average Transfer GPA
• 57 Average Credits Transferred

15,433 total transfer credits in Fall 2021
2021 S&T Transfer Institutions

New 2021
- 86 Different Institutions
  - 35 domestic partners
  - 2 international partners
  - 49 non-partners

All Enrolled Transfers
- 210 Different Institutions
  - 46 domestic partners
  - 11 international partners
  - 153 non-partners

2021 S&T Transfer Students
All Currently Enrolled Transfers

- 1016 Enrolled
  - 16% of on-campus undergrads
    (910 undergrad, 106 grad)
- 59 average transfer credits
- 3.27 average transfer GPA
- 3.26 average cumulative GPA
  (after 1 or more S&T semesters)
- 3.15 average S&T/UM GPA
  (after 1 or more S&T semesters)
**Enrolled Students by Transfer College**

210 different institutions, 46 domestic partners

<table>
<thead>
<tr>
<th>College</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>East Central College</td>
<td>136</td>
</tr>
<tr>
<td>St. Louis CC</td>
<td>83</td>
</tr>
<tr>
<td>Ozarks Technical CC</td>
<td>83</td>
</tr>
<tr>
<td>St. Charles CC</td>
<td>81</td>
</tr>
<tr>
<td>Missouri State Univ</td>
<td>80</td>
</tr>
<tr>
<td>Metropolitan CC</td>
<td>49</td>
</tr>
<tr>
<td>Jefferson College</td>
<td>31</td>
</tr>
<tr>
<td>Mineral Area College</td>
<td>27</td>
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<tr>
<td>Crowder College</td>
<td>19</td>
</tr>
<tr>
<td>SWIC</td>
<td>16</td>
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<tr>
<td>State Fair CC</td>
<td>16</td>
</tr>
<tr>
<td>Moberly Area CC</td>
<td>15</td>
</tr>
<tr>
<td>Columbia College</td>
<td>13</td>
</tr>
<tr>
<td>SEMO</td>
<td>11</td>
</tr>
<tr>
<td>Missouri Southern</td>
<td>8</td>
</tr>
<tr>
<td>Missouri Western</td>
<td>8</td>
</tr>
<tr>
<td>U of Central MO</td>
<td>8</td>
</tr>
<tr>
<td>Westminster</td>
<td>8</td>
</tr>
</tbody>
</table>

**2021 S&T Transfer Students**

**New Enrolled Transfers**

- College of Arts, Sciences, and Business: 22.3%
- College of Engineering and Computing: 77.7%

Total: 216
2021 New Transfer Students

75 College of Arts, Sciences, and Business

- Biological Sciences: 12
- Business: 1
- Physics: 3
- History: 4
- Education: 5
- Psychology: 7
- Information Science and Technology: 10
- Mathematics: 6
- English and Technical Communication: 1

2021 S&T Transfer Students

194 Engineering New Enrolled Transfers

194 Total Engineering

- Mechanical Engineering: 55
- Electrical Engineering: 1
- Civil Engineering: 7
- Aerospace Engineering: 8
- Chemical Engineering: 14
- Computer Engineering: 15
- Engineering Management: 32
- Aerospace Engineering: 39
# Total Hours for Degree

<table>
<thead>
<tr>
<th>Hours</th>
<th>Program 1</th>
<th>Hours</th>
<th>Program 2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>120</strong> Hours</td>
<td>BA: Biological Sciences, Chemistry, Economics, English, History, Multidisciplinary Studies, Philosophy, Psychology BS: Business and Management Systems, Economics, History, Information Science and Technology</td>
<td><strong>127</strong> Hours</td>
<td>Chemistry BS Geology and Geophysics BS</td>
</tr>
<tr>
<td><strong>124</strong> Hours</td>
<td>Psychology BS</td>
<td><strong>128</strong> Hours</td>
<td>All Engineering BS Computer Science BS Applied Mathematics BS Physics BS</td>
</tr>
<tr>
<td><strong>126</strong> Hours</td>
<td>Technical Communications BS</td>
<td><strong>130</strong> Hours</td>
<td>Biological Sciences BS</td>
</tr>
<tr>
<td><strong>131</strong> Hours</td>
<td>Chemical Engineering BS (Biochemical Emphasis)</td>
<td><strong>131</strong> Hours</td>
<td>Biological Sciences BS</td>
</tr>
</tbody>
</table>

## Free Electives for BS Degrees

<table>
<thead>
<tr>
<th>Hours</th>
<th>Elective Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Hours</td>
<td>Electrical Engineering Computer Engineering Engineering Management – All emphasis areas Geology and Geophysics</td>
</tr>
<tr>
<td>5 Hours</td>
<td>Metallurgical Engineering</td>
</tr>
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</table>
## Free Electives for BS Degrees

<table>
<thead>
<tr>
<th>Hours</th>
<th>Courses</th>
</tr>
</thead>
</table>
| 6     | - Psychology  
       | - Nuclear Engineering  
       | - Chemistry |
| 8     | - Computer Science |
| 9     | - Business and Management Systems  
       | - Information Science and Technology |
| 13    | - Economics |

## Required Electives

**Humanities/Social Sciences**
- See list in folder
- Complete S&T list at [http://ugs.mst.edu/](http://ugs.mst.edu/)
- Many other options.
- No restriction on skills/performance courses.
  - Public speaking/writing courses.
  - Music performance, art skills.
## Transfer Admission Criteria

<table>
<thead>
<tr>
<th>Admission to S&amp;T</th>
<th>Admission to STEM Field</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 2.0 gpa</td>
<td>- 2.5 gpa preferred</td>
</tr>
<tr>
<td>- Good standing</td>
<td>- 24 college-level credits</td>
</tr>
<tr>
<td>- 24 college-level credits</td>
<td>- Satisfactory progress through degree-related courses</td>
</tr>
<tr>
<td>- Students between 2.0 and 2.5 (or other red flags) are reviewed very carefully.</td>
<td></td>
</tr>
<tr>
<td>- Student Success Center utilized for borderline students.</td>
<td></td>
</tr>
</tbody>
</table>

## Advising for Engineering

### Advising Center and Academic Department
- Calculus I and II
- Engineering Physics I
- General Chemistry I
- English Composition I
- MECH ENG 1720 Engineering Design

### Advising Transition to Academic Department
- Completion of all but 1 or 2 courses
- Satisfactory gpa
- Other requirements established by engineering program
Merit-Based Scholarships
Transfer Students

- Unlimited in Number
- Automatically awarded at the time of admission
- Amounts shown are per year

<table>
<thead>
<tr>
<th>GPA</th>
<th>Missouri Residents</th>
<th>Out of State Residents</th>
<th>Renewal GPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.00 – 3.50</td>
<td>$3,000</td>
<td>$5,000</td>
<td>3.00</td>
</tr>
<tr>
<td>3.49 – 3.25</td>
<td>$1,500</td>
<td>$4,000</td>
<td>3.00</td>
</tr>
<tr>
<td>3.24 – 3.00</td>
<td>$1,000</td>
<td>$2,500</td>
<td>3.00</td>
</tr>
<tr>
<td>&lt; 2.99</td>
<td>$500</td>
<td>$1,000</td>
<td>3.00</td>
</tr>
</tbody>
</table>

Merit-Based Transfer Scholarships

- New transfer students with a minimum of 24 transferrable, graded, college-level credits
- No additional application required
- Amount determined by transfer GPA
- May be renewable for two years (4 semesters total)-renewal based on GPA requirements
- Summer and Fall Scholarship Priority deadline May 1
- Spring Scholarship Priority deadline December 1
Partners in Excellence Scholarship
Exclusively for Transfer Partner Schools

» Unlimited in Number
» Automatically awarded at the time of admission
» Amounts shown are per year

<table>
<thead>
<tr>
<th>GPA</th>
<th>Missouri Residents</th>
<th>Out of State Residents</th>
<th>Renewal GPA</th>
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<td>3.00</td>
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<tr>
<td>3.49 – 3.25</td>
<td>$2,500</td>
<td>$1,500</td>
<td>3.00</td>
</tr>
<tr>
<td>3.24 – 3.00</td>
<td>$2,000</td>
<td>$1,500</td>
<td>3.00</td>
</tr>
<tr>
<td>&lt; 2.99</td>
<td>$ 500</td>
<td>$1,000</td>
<td>3.00</td>
</tr>
</tbody>
</table>

S&T Transfer Connection Award
Out of State waiver for those transferring from partner HBCU or minority serving institutions

• Award is a 100% waiver of out of state tuition (~$19,000)
• Combines with the in-state portion of the Transfer Merit ($1,500 - $3,000) and Diversity scholarships ($1,000 - $2,000) (if eligible)
• Can be stacked with most other departmental or academic scholarships
• Renewable for 2 years with 3.00 Cum GPA
• No additional application
Phi Theta Kappa Scholarship

- $1,000 for MO Residents
- $2,000 for Non-Residents
- Question on application for admissions
- Automatically awarded
- One-time scholarship
- June 1 deadline for Fall 2022

Border County Award

Out of State waiver for those in bordering counties in IL, IA, KY, NE, and TN

- Award is a 100% waiver of out of state tuition (~$18,000)
- Replaces any previous Groundbreaker Merit Scholarship or Transfer Merit Scholarship
- Renewable for 2 years for Transfer students and 4 years for Freshmen with 3.00 Cum GPA
- In addition, may be eligible for Border County Extra Award with an ACT of 28+/SAT 1300+
- More information at sfa.mst.edu
S&T Connection Award
Out of State waiver for students from AR, KS, OK

- Award is a 100% waiver of out of state tuition (~$18,000)
- Replaces any previous Groundbreaker Merit Scholarship or Transfer Merit Scholarship
- Renewable for 2 years for Transfer students and 4 years for Freshmen with 3.00 Cum GPA
- In addition, may be eligible for S&T Connection Extra Award with an ACT of 28+/SAT 1300+
- More information at sfa.mst.edu

Transfer Guides

East Central College — Missouri S&T
General Engineering Transfer Guide
Effective as of Fall 2020

Complete Group 1 - Core Requirements and Group 2 - Major Requirements for major of choice.

Group 1 - Core Requirements: All Majors Take All Courses

<table>
<thead>
<tr>
<th>East Central College</th>
<th>Missing Missouri S&amp;T</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH 100</td>
<td>Analytic Geometry and Calculus I</td>
</tr>
<tr>
<td>MATH 110</td>
<td>Analytic Geometry and Calculus II</td>
</tr>
<tr>
<td>MATH 120</td>
<td>Analytic Geometry and Calculus III</td>
</tr>
<tr>
<td>MATH 140</td>
<td>Calculus for Business</td>
</tr>
<tr>
<td>MATH 145</td>
<td>Calculus for Business I</td>
</tr>
<tr>
<td>PHYS 161, 161L</td>
<td>General Physics I and Lab</td>
</tr>
<tr>
<td>PHYS 263, 263L</td>
<td>General Physics II and Lab</td>
</tr>
<tr>
<td>MEC 111</td>
<td>Introduction to Mechanical Engineering</td>
</tr>
<tr>
<td>ENG 111</td>
<td>Technical Communication</td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition I</td>
</tr>
<tr>
<td>ECON 102</td>
<td>Principles of Microeconomics or Principles of Macroeconomics</td>
</tr>
<tr>
<td>ECON 101</td>
<td>Principles of Microeconomics or Principles of Macroeconomics</td>
</tr>
<tr>
<td>Total Hours</td>
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</tr>
<tr>
<td>Missing Missouri S&amp;T</td>
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</tr>
<tr>
<td>MATH 1244</td>
<td>Calculus for Engineers I</td>
</tr>
<tr>
<td>MATH 1276</td>
<td>Calculus for Engineers II</td>
</tr>
<tr>
<td>PHYS 1104</td>
<td>Engineering Physics I</td>
</tr>
<tr>
<td>PHYS 2104</td>
<td>Engineering Physics II</td>
</tr>
<tr>
<td>PHYS 3104</td>
<td>Engineering Physics II</td>
</tr>
<tr>
<td>PHYS 3110</td>
<td>Engineering Physics II</td>
</tr>
<tr>
<td>EDCN 1100</td>
<td>Principles of Microeconomics</td>
</tr>
<tr>
<td>EDCN 1101</td>
<td>Principles of Macroeconomics</td>
</tr>
</tbody>
</table>

transfer.mst.edu
S&T Transfer Recruitment
Here to serve your students

- Faculty Visits
- Classroom Presentations
- Recruitment Table Presence
- PTK or Math/Science Club Meetings
- On-the-Spot Admission and Scholarship Decision Days

Stevie Tupper
Student Service Coordinator for New Student Programs / Admissions

Transfer Advising and Orientation
Missouri S&T
Transfer Advising Day

9:30 AM Check-in

10:00 AM Welcome

10:30 AM Information Tour

Get a Tour of resources on campus and stop byCentennial Hall to get your Mane S&T Card ready.

11:30 AM Lunch

1:30 PM Parents Q&A

Get the chance to talk to Faculty and current S&T students.

Department Welcome/Advising

Get a chance to meet with your department and get your class schedule needs

2:00 PM Resource Fair

Have the chance to meet with Student Financial Assistance, Dining, Student Health, Parking, Global Engineering, Student Accessibility and Testing, and more.

3:00 PM End of Program

Fall 2022 Transfer Advising Schedule

- Full day event
- Department involvement
- Includes Orientation

Steph Fitch
Teaching Professor for Mathematics and Statistics

Math Advising
Will Zwikelmaier, Ed.D.
Director for COER

Career Opportunities and Employer Relations

Rachel Kohman
Director for Kummer Student Programs

Kummer Vanguard Scholars Program
Kummer Vanguard Scholars
Program and Scholarship

Scholarship

Awards between $1,000-$3,000
• Per year up to 4 years
• May be combined with other University scholarships
Program

Designed to support success as a student at Missouri S&T and to expand thinking around the five core areas:

- Entrepreneurship
- Research
- Design and Build
- Social Impact and Engagement
- Leadership

Application Requirements

- Transferring in 24 college level, transferrable credits
- 3.5 cumulative GPA
- Admitted to STEM program
- Registered for Transfer Advising Day
Fall 2022

• 38 transfer students have applied
• 20 awards so far
• Final deadline March 15th

Dr. Robin Verble
Associate Professor and Program Director for Environmental Sciences

Environmental Science Degree
NEW!
B.S. in Environmental Science
@ Missouri S&T

What is Environmental Science?
integrates physical, biological and information sciences (including ecology, biology, physics, chemistry, plant science, zoology, mineralogy, oceanography, limnology, soil science, geology and physical geography, and atmospheric science) with human considerations (sociology, philosophy, economics) to the study of the environment, and the solution of environmental problems.
Environmental Scientist

- Loves to be outside, wants to work with plants and animals, enjoys collecting data and understanding scientific principles that bear on environmental health, a curious researcher
- Monitors and gathers data on impacts of industry, engineering, and human use on wildlife, soils, streams, and forests
- Analyzes data from studies to assess risk of pollution, contamination and environmental damage
- Collects the information that guides development of policies and regulations, economic drivers, and industrial standards associated with environmental impacts
- Conducts fieldwork; investigates and studies soils and groundwater for signs of contamination or degradation and collects samples for analysis
- Performs laboratory analyses on environmental samples collected in the field to generate data. Formulates and tests hypotheses
- Inspects mines, drilling sites, logging decks, and other resource extraction sites for compliance with federal rules and regulations

Environmental Engineer

- Loves to be outside, strives to apply technology to find solutions that protect plants, animals, and natural systems from human impacts, and repair environmental damage; a skilled problem solver
- Uses engineering principles to implement infrastructure, technology, and industrial operations that reduce the risk of contamination and environmental damage.
- Develops plans, guided by data, to solve environmental problems.
- Implements solutions to mitigate and repair human impacts on the environment.
- Makes decisions on project designs, mitigation strategies and construction activities.
- Provides guidance and recommendations to government, businesses, public, and others about how to best mitigate environmental and health hazards

About the Degree

120 hours; 4 years
Interdisciplinary
Common core courses
Tailored elective courses
Experiential learning focus
Capstone project with industry
Real Interdisciplinary Experience

Biology
Environmental Engineering
Economics
Geology
Geological Engineering
Political Science
Chemistry

Core Courses: Foundations and Capstone

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV SCI 1100</td>
<td>Freshman Seminar (1)</td>
<td>1</td>
</tr>
<tr>
<td>BIO SCI 1115</td>
<td>Introduction to Environmental Science (3)</td>
<td>3</td>
</tr>
<tr>
<td>CHEM 1500</td>
<td>General Chemistry I (4)</td>
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<tr>
<td>CHEM 1505</td>
<td>Intro to Lab Safety and Hazards: Materials (1)</td>
<td>1</td>
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<tr>
<td>CHEM 1506</td>
<td>General Chemistry Laboratory (2)</td>
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<tr>
<td>ECON 1100</td>
<td>Principles of Microeconomics (3)</td>
<td>3</td>
</tr>
<tr>
<td>ENGL 1120</td>
<td>Exposition and Argumentation (5)</td>
<td>5</td>
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<tr>
<td>ENGL 1160</td>
<td>Writing and Research (5)</td>
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<tr>
<td>GEOL 1400</td>
<td>General Chemistry II (1)</td>
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<tr>
<td>BIO SCI 1120</td>
<td>Biodiversity (6)</td>
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<tr>
<td>BIO SCI 1120</td>
<td>Biodiversity Lab (1)</td>
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<tr>
<td>MATH 1211 or MATH 1212 or MATH 1214 or MATH 1221</td>
<td>4 or 5</td>
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<tr>
<td>GEO SCI 1115</td>
<td>Physical and Environmental Geology (5)</td>
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<tr>
<td>ENV ENG 2000</td>
<td>Fundamentals of Environmental Engineering and Science (5)</td>
<td>5</td>
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<tr>
<td>PHYS 1105</td>
<td>College Physics (4)</td>
<td>4</td>
</tr>
<tr>
<td>POL SCI 1100</td>
<td>American Government (3)</td>
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<tr>
<td>BIO SCI 2500</td>
<td>Ecology (5)</td>
<td>5</td>
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<tr>
<td>HIST 380, HIST 390, or HIST 395</td>
<td>3</td>
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<tr>
<td>ENVS 2003</td>
<td>Biological Fundamentals of Envy Engineering (5)</td>
<td>5</td>
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<tr>
<td>GEO ENG 3156</td>
<td>Fundamentals of Geographic Information Systems (5)</td>
<td>5</td>
</tr>
<tr>
<td>ENVS 5640 or CIV ENG 5640</td>
<td>Environmental Law and Regulations (3)</td>
<td>3</td>
</tr>
</tbody>
</table>

PHILOS 1130 | Introduction to Ethics (3)                      | 3            |
| GEO ENG 3331 | Subsurface Hydrology (5)                       | 5            |
| ECON 2200 | Principles of Macroeconomics (3)               | 3            |
| ENV ENG 5642 | Sustainability, Pop., Energy, Water and Matter (3) | 3 |
| BIO SCI 4513 | Introduction to Environmental Microbiology (3) | 3 |
| HIST 4470 or HIST 2410 or HIST 3530 or HIST 3540 | 3 |
| GEO 2610 or GEO 2611 | Physical Mineralogy and Petrology (7) | 7 |
| PHILOR 4530 | Environmental Ethics (3)                      | 3            |
| GEO ENG 4115 or STAT 5425 | Introduction to Biostatistics (4) | 4 |
| BIO SCI 2225 | General Genetics (3)                           | 3            |
| GEO 4340 | Remote Sensing Technology (3)                  | 3            |

ENV SCI 4500 | Environmental Science Capstone (3)              | 3            |
Core Courses: Bio Sci

- ENV SCI 1100 Freshman Seminar (3)
- BIO SCI 1175 Introduction to Environmental Science (4)
- CHEM 1100 General Chemistry I (5)
- CHEM 1110 General Chemistry II (5)
- ECON 1104 Principles of Microeconomics (3)
- BIO SCI 1100 Writing and Research (3)
- CHEM 1123 Biochemistry (3)
- BIO SCI 1190 Biological Lab (3)
- MATH 1220 or MATH 1221 or MATH 1224 or MATH 1221 (4)
- GEO 1116 Physical and Environmental Geology (3)
- ENV SCI 2100 Environmental Law and Regulations (3)
- PHYS 1105 College Physics (4)
- POL SCI 1200 American Government (3)
- BIO SCI 2300 Geology (5)
- HIST 2310 or HIST 3300 or HIST 3310 (3)
- ENV SCI 2100 Fundamental Concepts of Environmental Science (3)
- ENGR 1100 General Chemistry Laboratory (5)
- ECON 1120 Principles of Macroeconomics (3)
- ENV SCI 2100 Sustainability, Pop., Energy, Water and Materials (3)
- BIO SCI 3115 Introduction to Environmental Microbiology (3)
- HIST 4450 or HIST 2101 or HIST 3330 or HIST 3310 (3)
- GEO 2210 or GEO 2611: Physical Microbiology and Ecology (3)
- PHIL 4350 Environmental Ethics (3)
- ENGR 4115 or STAT 5425: Introduction to Biostatistics (3)
- BIO SCI 2225: General Genetics (3)
- GEO 4310: Remote Sensing Technology (3)
- ENV SCI 4000 Environmental Science Capstone (3)

Core Courses: Chem

- ENV SCI 1100 Freshman Seminar (3)
- BIO SCI 1175 Introduction to Environmental Science (4)
- CHEM 1100 General Chemistry I (5)
- CHEM 1110 General Chemistry II (5)
- ECON 1104 Principles of Microeconomics (3)
- BIO SCI 1100 Writing and Research (3)
- CHEM 1123 General Chemistry III (3)
- MATH 1220 or MATH 1221 or MATH 1224 or MATH 1221 (4)
- GEO 1116 Physical and Environmental Geology (3)
- ENV SCI 2100 Environmental Law and Regulations (3)
- PHYS 1105 College Physics (4)
- POL SCI 1200 American Government (3)
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- ENV SCI 2100 Sustainability, Pop., Energy, Water and Materials (3)
- BIO SCI 3115 Introduction to Environmental Microbiology (3)
- HIST 4450 or HIST 2101 or HIST 3330 or HIST 3310 (3)
- GEO 2210 or GEO 2611: Physical Microbiology and Ecology (3)
- PHIL 4350 Environmental Ethics (3)
- ENGR 4115 or STAT 5425: Introduction to Biostatistics (3)
- BIO SCI 2225: General Genetics (3)
- GEO 4310: Remote Sensing Technology (3)
- ENV SCI 4000 Environmental Science Capstone (3)
Core Courses: Geo/Geo Eng

[ENVS SCI 1000: Freshman Seminar (3)]
[BSI SCI 1075: Introduction to Environmental Sciences (5)]
[CHEM SCI 1515: General Chemistry I (5)]
[CHEM SCI 1501: General Chemistry Laboratory (3)]
[ENCONS 1105: Principles of Microeconomics (3)]
[ENG 1120: Exposition and Argumentation (5)]
[ENG 1156: Writing and Research (5)]
[CHEM SCI 1520: General Chemistry II (5)]
[BSI SCI 2020: Biochemistry (3)]
[BSI SCI 1230: Biochemistry Lab (3)]
[MATH 1212 or MATH 1214 or MATH 1221 or MATH 1222 (6)]

PHIL 1130: Introduction to Ethics (3)

GEOG 3020: Subsurface Hydrology (3)

ECON 1209: Principles of Macroeconomics (3)

ENV 5640: Sustainability, Pop., Ener., Water and Materials (3)

BSI SCI 4515: Introduction to Environmental Microbiology (5)

ENG 2610 or ENG 2611: Physical Microbiology and Pest Control (5)

PHIL 4390: Environmental Ethics (3)

ENG 4115 or STAT 4125: Introduction to Biostatistics (3)

BSI SCI 2225: General Genetics (3)

ENG 4301: Remote Sensing Technology (3)

ENV 4000: Environmental Science Capstone (5)

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[ENVS SCI 1000: Freshman Seminar (3)]
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BSI SCI 2225: General Genetics (3)

ENG 4301: Remote Sensing Technology (3)

ENV 4000: Environmental Science Capstone (5)
Core Courses: Econ/Pols/ALP

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And others! 18 hours– chosen with an advisor

Electives

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</table>

Remote Sensing Technology
Hydrogeology
Paleoclimatology and Palaeoecology
Meteorology and Climatology
Lidar Principles and Applications
Micropaleontology
Statistical Methods in Geology and Engineering
Environmental Aspects of Mining
Risk Assessment in Environmental Studies
Important Notes

*Highly transfer flexible*

No Calculus II; No Organic Chemistry

Engineering Coursework, Rigorous Degree, Industrial Application w/o Engineering Calculus/Physics/Chemistry/Statics/Dynamics, etc.

Excellent option for students interested in outdoors, conservation, environmental health

Grad Track Pathway eligible (5 years to an M.S.)

Building in minors– flexible and easy with elective coursework

Enrolling for Fall 2022

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Careers

Broad degree, lots of career path flexibility

Opportunities to work in environmental policy, law

Traditional Industry: environmental compliance, environmental management, consulting agencies

Federal and State Agencies: natural resources management, environmental scientists; environmental planning

S&T connections to industry; sustainability, green jobs

Average salary for environmental scientists and specialists, according to the Bureau of Labor Statistics

Projected growth in demand for environmental scientists, according to the Bureau of Labor Statistics
Why S&T For Environmental Science?

Unique engineering and industrial connections strengthen the career potential of this degree tremendously.

A truly interdisciplinary approach.

A robust and vibrant (and growing) environmental research program including a new field station

Opportunities for design teams (Solar House), independent research, interaction with research center (CREE), clubs (EcoMiners)

Opportunities for accelerated graduate track and 5-year M.S. program

Situated in the middle of environmentally rich and diverse region—access to national forests, rivers, hiking, and the mining region at our fingertips
Questions & More Information

envsci.mst.edu
Dr. Robin Verble
verbler@mst.edu

E-mail me to:
Ask more questions.
Request a digital degree checksheet.
Talk to a current student.

Dr. David Lipke
Assistant Professor for Materials Science and Engineering

Ceramic Engineering Mentorship and Education
Ceramic Engineering
Mentorship and Education
(CEMENTED)

Dr. David Lipke (Asst. Prof., Dept. of Materials Science and Engineering)

What is Materials Science?

*Materials science* is an interdisciplinary field of study focused on design and discovery of materials and their methods of manufacture.

Materials scientists employ principles of chemistry, physics, and engineering to understand how the structure of matter from angstrom to meter length scales determines real-world behaviors.
What is Ceramic Engineering?

Ceramics are non-metallic inorganic solids. Materials that can be classified as ceramics include non-metallic elements (e.g., carbon), compounds (e.g., oxides, carbides, pnictides, etc.); inorganic glasses and semiconductors.

Ceramics are noteworthy for their wide range of electrical, dielectric, magnetic, optical, mechanical, and thermal properties that lead to their use in many technological applications.

Ceramic Engineering is the disciplinary study of process-structure-property relationships across all classes of ceramics in their various forms.

MAT SCI ENG department

MSE Department created July 1, 2004
- Metallurgical engineering (1870)
- Ceramic engineering (1926)

Degree Programs
- Ceramic Engineering: BS, MS, PhD
- Metallurgical Engineering: BS, MS, PhD
- Materials Science and Engineering: MS, PhD
- Minor in Biomedical Engineering

Students and Faculty
- ~240 undergraduates
- ~60 graduate students
- 21.25 faculty
- 19 TT & 22.25 Teaching NTT
What is CEMENTED?

The Naval Engineering Education Consortium (NEEC) program employs project-based research at colleges and universities that targets the Navy’s technology needs and cultivates a world-class Naval Engineering workforce via student participation.

The CEMENTED program is partially supported by ONR grant N00174-21-1-0008.

Qualifications

- United States citizen
- Member of a group underrepresented in materials research.
  - Groups underrepresented in materials research include women, underrepresented minorities (African Americans, American Indians including Native Alaskans, Hispanics and Native Pacific Islanders), and persons with disabilities.
  - Veterans are also strongly encouraged to apply.
- Earned a 3.0 cumulative GPA or higher with at least 45 transferrable credit hours at the undergraduate level
Benefits of CEMENTED

- Full tuition + fees covered for 4 semesters
- Guaranteed paid summer internships
- Project-based research experiences
- Structured professional development activities, including opportunities to present student research at technical conferences

Fall 2022 – Semester 1 (Program start)
Summer 2022 – Internship 1
Spring 2023 – Semester 2
Fall 2023 – Semester 3
Spring 2024 – Semester 4
Fall 2024 – Semester 5 (Graduate)
Summer 2023 – Internship 1
Summer 2024 – Internship 2

How to Apply

Follow the instructions provided at the following link:

https://connect.mst.edu/register/cemented

Funding for three (3) CEMENTED fellows is available immediately for Fall 2022. Applications will be considered until positions are filled.