STEM FOR K-6TH GRADE EDUCATORS (B.S.)

The Bachelor of Science in STEM for K-6th Grade Educators prepares future educators to integrate, apply, and foster scientific inquiry, technological and engineering design, and mathematical analysis as pedagogical approaches to STEM instruction. Students learn the principles and knowledge needed to educate learners in the disciplines of science, technology, engineering, and mathematics in a transdisciplinary and applied approach. STEM majors learn inquiry-based instruction and how to integrate this instruction into a cohesive learning paradigm based on real-world problems. By providing a foundational knowledge of content this degree positions students to work in various educational settings including elementary and middle schools, museums, libraries, government agencies, and community-based organizations.

Integrated Studies Requirements
40 credits minimum

STEM for K-6th Grade Educators

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH-141</td>
<td>Introductory Statistics</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MATH-112</td>
<td>Precalculus</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>or MATH-211</td>
<td>Calculus I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MATH-181</td>
<td>Comp Tools for Problem Solving</td>
<td>4</td>
<td></td>
</tr>
</tbody>
</table>

STEM Capstone
EDUC-442 Integrating Stem in the Class 4

Total Credits 36

Teacher Licensure
Only Elementary Education (K-6) students can declare this major to meet the requirement for the liberal arts major. This is not a stand-alone major, so students must meet the requirements for the elementary education major to have this as their second liberal arts major. Please see the catalog for details on Elementary Education requirements: https://catalog.keene.edu/bachelors-degree-programs/

Electives
Select courses to reach a total of 120 credits for the degree

Degree Requirements
120 credits
40 credits at the upper-level

Upon completion of the STEM for Educators B.S. degree, students will be able to:

- Develop a solid understanding of basic scientific principles, mathematical concepts, and engineering fundamentals and their applications through different disciplines
- Connect STEM concepts to real-world applications and careers to inspire students.
- Apply the vocabulary, foundational theories, and conceptual knowledge that defines a STEM curriculum.
- Bring hands on science and math materials, exercises, tools and experiences into their classrooms
- Use transdisciplinary strategies of inquiry, logical reasoning, and technology to address collaborative real-world problem solving.
- Support integrative STEM learning using the concepts and principles of science, technology, engineering, and mathematics as outlined in national standards documents.