

**CURRICULUM DEVELOPMENT FACULTY GRANT  
GRANT GUIDELINES  
MISSOURI S&T**

**Who may apply?**

All full-time tenured, tenure-track and non-tenure track faculty with appointments in the College of Engineering and Computing or the College of Arts, Sciences, and Business may apply.

**What does the program consist of?**

These grants provide support to further facilitate learning opportunities in the classroom that prepare students to enter the workforce as technically savvy, innovative, flexible and real-world-ready employees. This award supports the planning, development, and execution of new sustainable curriculum/instruction with the purpose of infusing [entrepreneurial mindset](#), innovation, creativity, design thinking and/or leadership practices directly into undergraduate student experiences. Projects need to be assessed with clear objectives and outcomes relative to the course being developed or modified.

Team projects within disciplines or across disciplines are also welcomed and encouraged. There are no constraints on the type of activity proposed, **only that it is experiential in nature and helps students gain skills in one or more of the 5 areas of focus (entrepreneurial mindset, innovation, creativity, design thinking, leadership)** and is instituted in a course during the grant period, which is three to four semesters.

**Award Conditions**

- During the award period, the proposed/developed activity for infusing hands-on entrepreneurial mindset, innovation, creativity, design thinking and/or leadership practices in the classroom or outside the traditional classroom must be executed.
- A verbal mid-term update will be given to members of the CERTI Committee and Pathways to Innovation Team.
- At the end of the award period, awardees will report lessons learned in a campus faculty forum. The intent of the forum is to share best practices with the greater campus community. Missouri S&T venues could include the Teaching and Learning Technology Conference, CERTI faculty events, etc.
- An assessment of activity in terms of outcomes will be completed.
- Faculty are strongly encouraged to pilot activity before full execution.
- Collaboration among faculty is also encouraged (on campus, within the UM System, or with external colleagues).
- All projects must include assessment of the active or experiential activities and curriculum.
- Faculty are strongly encouraged to publish and/or present in non-campus venues (conferences, workshops, etc.).

**Areas of focus**

Experiential activities and curriculum that result in students gaining skills in one or more of the following topics:

- Entrepreneurial mindset
- Innovation
- Creativity and/or creative problem-solving (CPS)
- Design thinking
- Leadership

All projects must include assessment of the experiential activities and curriculum.

**Awards**

The individual awards will range from \$1,000-\$3,000 depending on the scope of the activity.

Funds may be used for project-related travel expenses, as well as costs related to presenting and publishing results of educational curriculum projects; release time and/or summer development time; TA or GTA support; materials and supplies, etc.

Award sizes must directly align with proposed award description.

The number of awards and award size will depend on the quality and number of proposals submitted.

Proposals deemed to be extraordinary may be eligible for additional funding.

Matching funds are not required, but they may demonstrate commitment to instructional and assessment development and implementation of project outcomes.

Pursuing subsequent funding for a larger grant to continue efforts on the grantee’s topic is strongly encouraged but not required.

**Grant application procedure**

Submit a letter of intent to CERTI ([certi@mst.edu](mailto:certi@mst.edu)) or mail to 207 Norwood Hall by March 31, 2017, regarding your proposal. An email is sufficient.

Submit a proposal (up to 8 pages including the cover sheet, proposal, budget and references) on or before May 19, 2017, to the CERTI office (addresses listed above). See Proposal Template for more detail.

<b>Format</b>	<b>Max of 8 pages, Times New Roman, 12pt font, 1 inch margins, 1.5 line spacing</b>
Cover sheet and general information (2 pages max)	Date, PI Name and name(s) of Co-PI(s), contact info, academic rank, course details, department affiliation, proposal title, department head signatures, and total amount requested.
Proposal body (4 pages max)	<ul style="list-style-type: none"> <li>- Abstract (100 words)</li> <li>- Proposal Body: Course description and course objectives, project purpose, significance of project, learning outcomes, activity objectives (timeline, deliverables, etc.), assessments, impact of result</li> </ul>
References (1 page max)	
Budget and budget justification (1 page max)	<ul style="list-style-type: none"> <li>- List of budget items and amounts</li> <li>- Line item justification</li> </ul>

**Proposals may be returned without review for failure to conform to proposal structure, poor grammar or spelling.**

**CURRICULUM DEVELOPMENT FACULTY GRANT PROPOSAL TEMPLATE**

Center for Educational Research and Teaching Innovation (CERTI)

Missouri University of Science and Technology

Program Details: <http://certi.mst.edu/innovationineducationgrant>

Proposal Deadline: May 19, 2017

**Cover Sheet and General Information:**

Date: \_\_\_\_\_

PI Name: \_\_\_\_\_ Academic Rank: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Department: \_\_\_\_\_

Co-PI Name: \_\_\_\_\_ Academic Rank: \_\_\_\_\_

Phone: \_\_\_\_\_ Email: \_\_\_\_\_

Department: \_\_\_\_\_

Project Title: \_\_\_\_\_

Total Amount Requested: \$ \_\_\_\_\_

**Course Information:**

\_\_\_New Course Development: Experimental Course Number (e.g., EnvE 5001) \_\_\_\_\_

Course Details:

First Semester Offering/Mode (e.g., Fall 2017/Lecture): \_\_\_\_\_

Anticipated Enrollment: \_\_\_\_\_ Number of Sections: \_\_\_\_\_

\_\_\_Modification of Existing Course: Course Number (e.g., Econ 4643) \_\_\_\_\_

Course Details:

Required: Yes \_\_\_ No \_\_\_ If yes, Degree Program (e.g., BS, BA)

\_\_\_\_\_  
Fall/Typical Enrollment/# of Sections: \_\_\_\_\_

Spring/Typical Enrollment/# of Sections: \_\_\_\_\_

Summer/Typical Enrollment/# of Sections: \_\_\_\_\_

**Approval:**

Department Chair (name): \_\_\_\_\_ (email): \_\_\_\_\_

Department Chair Signature: \_\_\_\_\_

(signature)

(date)

**Content and Funding Areas:**

<b>Areas of Focus (mark all that apply):</b>	<b>Funds needed for (mark all that apply):</b>
<input type="checkbox"/> Entrepreneurial mindset	<input type="checkbox"/> Release time
<input type="checkbox"/> Innovation	<input type="checkbox"/> Summer development time
<input type="checkbox"/> Creativity and/or creative problem solving (CPS)	<input type="checkbox"/> Travel expenses for attending workshops
<input type="checkbox"/> Design thinking	<input type="checkbox"/> Travel expenses to present results at national conferences
<input type="checkbox"/> Leadership	<input type="checkbox"/> Publishing costs
	<input type="checkbox"/> TA/GTA support
	<input type="checkbox"/> Materials/supplies
	<input type="checkbox"/> Other (please describe):

**Submission format: Times New Roman, font size 12 points, 1.5 line spacing, 1” margins all around**

**Is IRB approval necessary? \_\_\_ Yes \_\_\_ No. If yes, has approval been obtained? If not, what is the plan to obtain it?**

**Proposal Format (maximum of 8 pages)**

**1. Cover Sheet and General Information (maximum of 2 pages)**

**2. Proposal Body (maximum of 4 pages)**

- **Abstract (maximum of 100 words)**
- **Course Description (Catalog or EC form description)**
- **Proposed Course Objectives (Current objectives)**
- **Purpose of the Project:**
  - Explain how the project is aligned with the area(s) of focus:
  - State the expected objectives for students, i.e., what will change?
- **Significance of the Project:**
  - How will it affect the culture of campus?
  - How will Missouri S&T students’ learning potentially be impacted?
  - How will Missouri S&T teaching and assessment potentially be impacted (i.e., what are the active/experiential learning instructional strategies to be used, what obstacles will need to be overcome, how does it align with accreditation standards)?
- **Learning Outcomes to be Addressed (if applicable) (e.g., student interest, attendance rates, participation, knowledge acquisition, skills acquisition, changed attitudes, awareness, etc.)**
- **Activity Objectives:**
  - How will the objectives be met (what are the major activities)?
  - What are the major benchmarks, deadlines and deliverables (must include a timeline, e.g., Gantt chart)?
- **Assessments:**
  - Describe the proposed evaluation/assessments for the project (how and what will be measured)?
  - What evidence will be produced to show that the objectives have been achieved?
  - How is the evidence linked to the project objectives?

- What types of focused instruments (individuals/teams), course-level, program-level (if applicable) student assessments will be used (e.g., direct/indirect, formative/summative assessment, etc.)?
- Will rubrics be developed for assessment? If not, what other methodologies will be used for consistency?
- **Impact of Results**
  - How will results be applied beyond the grant cycle?
  - To what faculty can you transfer knowledge, activities, etc., at Missouri S&T and work with to take this to other courses/departments?
  - How will the results be publicized with others at Missouri S&T or outside the campus?

### **3. References (maximum of 1 page)**

### **4. Budget and Budget Justification (maximum of 1 page)**

- Please provide a line item budget that is associated with the specific project activities and associated justification for items.

**CURRICULUM DEVELOPMENT FACULTY GRANT  
EVALUATION RUBRIC  
MISSOURI S&T**

**Project Importance**

- Is the project clearly stated?
- Is the impact clearly addressed?
- Are other Missouri S&T faculty likely to access and use the results? Why?

**Alignment with Focus Areas**

- Is the project aligned with the focus areas (entrepreneurial mindset, innovation, creativity, design thinking, leadership)? State which one(s).
- Does the proposal clearly describe how the project is aligned with the focus areas?

**Project Scope & Impact**

- How will Missouri S&T students' learning be impacted?
- How will Missouri S&T teaching be impacted?
- How will the project impact the culture of the campus?
- How will results be applied beyond the grant cycle?
- Is there a clear assessment plan for experiential learning?

**Project Description & Feasibility**

- What are the expected objectives for students and/or faculty, i.e., what will change?
- What are the intended outcomes of the project?
- What are the major activities?
- Who will perform the activities?
- What are the major benchmarks and deadlines?
- How will the activities be sustained beyond the grant cycle?

**Assessment**

- Is the assessment of experiential learning activities clearly stated?
- What types of instruments are proposed?

**Evaluation**

- How will the project document its success?
- What evidence will be produced to show that the objectives have been achieved?
- Is the evidence directly linked to the project objectives?

**Budget**

- Is each budget item clearly associated with the project scope/activity?
- Do the budget items contribute to the successful completion of the project?
- Are the amounts clearly explained and based on expected costs?

**Communication and Dissemination of Results**

- How will results of the project be publicized to others at Missouri S&T who might benefit?
- Are these methods for sharing information likely to reach interested faculty?
- What external means for publicizing the project are part of the communication plan?
- Is IRB approval necessary, and if yes, has it been obtained?

**FINAL REPORT FORMAT  
CURRICULUM DEVELOPMENT FACULTY GRANT  
MISSOURI S&T**

- **Cover Sheet**
  - Title of Project
  - Date
  - Names of PI(s), respective departments, office phone and email
- **Summary**
- **Purpose of Project, some areas to include:**
  - Course name, title and description.
  - Learning outcomes and rationale for teaching.
  - Which focus area(s) were addressed and how: entrepreneurial mindset, innovation, creativity, design thinking and/or leadership practices?
- **Methodology, some areas to include:**
  - Describe how experiential learning was incorporated?
  - Describe other pedagogies used (e.g., other active learning, cognitive engagement, transdisciplinary curriculum, critical thinking, systems thinking, participatory learning, conflict resolution, service learning, applied learning, empowering, values-based thinking, inclusiveness, place-based, etc.)
  - What types of assessment instruments were used?
- **Results, some areas to include:**
  - Describe activity objectives and results. Provide specific scenarios and assignments.
  - Include all rubrics or other means used for assessment and provide anonymous student examples.
- **Conclusion, some areas to include:**
  - Future implications
  - Plans for future dissemination