STEM Catalyst Grants 2020-2021
Request for Proposals

Applications are invited for the third STEM Catalyst Grant cycle, a highly competitive research grant program across the sciences, engineering and mathematics, offered through collaborative sponsorship of the College of Arts and Sciences, School of Engineering, and Office of the Provost. The award is intended to foster new and expand existing research programs that have the potential to rise to national prominence. Applications should articulate how the research advances the University of Dayton’s commitment to the common good. Proposals advancing the University’s strategic priorities of autonomous systems, health and biosciences, and sustainability and human rights are particularly encouraged, as are proposals from collaborative teams addressing multidisciplinary challenges. Proposals focused on curricular or cultural reform are outside the scope of this call.

Eligibility:
All faculty (tenured, tenure track and non-tenure track) are eligible to apply.

Award details:
The program will support research from May 16th, 2020 to May 15th, 2021. Proposal budgets may be customized by applicants to include faculty salary and benefits, student stipends/assistantships, materials, supplies, and other expenses in support of research. Budgets may also include support for preparation to pursue external sponsorship. Budgets should be appropriate to the scope of activities. We anticipate funding multiple proposals of focused to moderate scope or collaboration ($5,000 - $50,000) and up to one bold collaborative project (<$100,000).

Review process:
Awards will be reviewed in two categories. Proposals of $5,000 - $50,000 will receive one narrative review from an external reviewer that applicants may recommend. Proposals will then be scored by a committee composed of representatives from the College of Arts and Sciences and School of Engineering. Teams requesting $50,000 - $100,000 should submit a preliminary proposal. Full proposals at this award level will be received by invitation and reviewed externally. Following recommendations from internal and external reviewers, final award determinations will be made jointly by the Deans of the College of Arts and Sciences and School of Engineering.

Application Deadline:
Preliminary proposals from teams requesting over $50,000 must be received by Tuesday, Nov 19th, 2019 at 5:00 p.m. Full proposals for this award level will be conducted by external review and considered by invitation only. Applications for proposals requesting <$50,000 and invited team proposals must be received by Tuesday, January 14th, 2020 at 5:00 p.m. Awards are expected to be announced by Tuesday March 31st, 2020.
Evaluation Criteria:
The proposal narrative should be written for clarity to a broad audience of STEM researchers and describe the significance and expected outcomes of the award. The application process is highly competitive. Reviewers will consider the following criteria in evaluating proposals:

- The significance of the research:
  o How will the research advance the discipline(s) or deliver a needed innovation?
  o How will the program deliver a broader societal impact and advance the University’s commitment to serving the common good?
  o Does the research advance the University’s strategic priorities of autonomous systems, health and biosciences, or sustainability and human rights?

- The feasibility of the proposal:
  o Given the project rationale, work plan, team composition, budget and timeline, what is the likelihood of the described outcomes being achieved?

- The specific vision for the translation of this award to continued external funding:
  o What agencies or partners are aligned with and will be attracted by the research?
  o What are the specific funding mechanisms that will be sought and on what timeline?
  o How is the proposed research connected to future external sponsorship opportunities and the objectives and priorities of the potential sponsors?

- The effect of the Catalyst award:
  o Why is Catalyst funding necessary to help establish the investigator(s) or research program and how will it do so?
  o How and to what degree does Catalyst funding improve the likelihood of external sponsorship?
  o If the applicants are recipients of a previous Catalyst grant, what progress has been made towards previously outlined goals?

Only complete applications submitted by the deadline and consistent with the application instructions will be considered. Late or incomplete proposals will not be reviewed.

Acceptance Requirements:
For 2020-21 awards, a final report detailing the outcomes of the award: research outcomes, external funding applied for or received, manuscripts, etc. is due before May 15th, 2021 or reapplication to this program. All grantees commit to pursuing external funding for Catalyst-sponsored research within 18 months of receipt of funds and to providing copies of submitted applications. Additional support for pursuit of external funding may be available. Scholarly work arising from the STEM Catalyst award must acknowledge the granting mechanism. Recipients of the 2020-21 awards are expected to share the results of the supported research internally at a forum designed for this purpose convened in the 2020-21 academic year.

Funding Restrictions:
Recipients may not receive more than 100% of their 12-month equivalent compensation. Faculty previously committed to 2020 summer teaching assignments may teach up to one summer course. Projects involving human or animal subjects must receive applicable IRB or IACUC approval prior to receipt of funds. Funds will be distributed beginning May 16th, 2020 and must be exhausted by May 15, 2021.
Application Instructions (Proposals $5,000 - $50,000):
Submit completed applications to STEMcatalyst@udayton.edu by 5:00 p.m. on Tuesday, January 14th, 2020. Questions can be directed to Doug Daniels (ddaniels2@udayton.edu) or Don Pair (dpair1@udayton.edu).

Applications should contain the following 7 elements. Email parts 1-4 (compiled as a single PDF) and the budget spreadsheet (5) to the address above. The cover page (6) and department chair approval (7) google forms are linked from go.udayton.edu/STEMCatalyst.

1. Project Proposal (maximum 6 pages):
   a. Project title
   b. Project team: Name and UD affiliation of each member
   c. Abstract: maximum 200 words
   d. Proposal narrative: Background, significance, methods and references. For collaborative applications, the role played by each member of the project team should be included, as well as how the team will collaborate and interact during the project.
   e. Expected outcomes: Timeline for the project and expected outcomes in:
      i. Publications, scholarly advancement, or innovation
      ii. External funding from specific agencies and granting mechanisms, contracts, or external partnerships
      iii. Broader societal impacts consistent with the University’s commitment to advancing the common good

2. Budget Narrative that includes:
   a. Total budget requested
   b. Explanation of expenses in support of research or pursuance of external sponsorship
   c. Statement articulating how the project would change if project were funded at 50% of request.

3. Disclosures: Current, pending, or potential funding (internal or external), conflicts of interest, etc. for each applicant

4. Curriculum Vitae or Biosketch for each applicant

5. Budget: A budget spreadsheet is included with this call for proposals. Budgets must be submitted using this .xls template.

6. Complete the Google Form Cover page found at go.udayton.edu/STEMCatalyst, which includes project title, author list, total requested budget, a description of alignment with University strategic research areas (if applicable), and suggested external evaluators.

7. For each proposal, Chairs of participating departments must complete an electronic statement of support, which can be found at go.udayton.edu/STEMCatalyst. This form may be completed in advance of proposal submission with the faculty name and proposal title.
Application Instructions (Preliminary Team Proposals < $100,000):
Submit completed applications to STEMcatalyst@udayton.edu by 5:00 p.m. on Tuesday November 19th, 2019. Questions can be directed to Doug Daniels (ddaniels2@udayton.edu) or Don Pair (dpair1@udayton.edu).

Applications should contain the following 2 elements, compiled as a single PDF

1. Preliminary Proposal (maximum 3 pages):
   a. Project title
   b. Project team: Name and UD affiliation of each member
   c. Abstract: maximum 400 words
   d. Proposal executive summary: Background, significance, and specific aims
   e. Expected outcomes: Timeline for the project and expected outcomes in:
      i. Publications, scholarly advancement, or innovation
      ii. Sustainable improvements in research landscape or infrastructure at UD
      iii. If applicable, describe how the proposal advances University strategic priorities in autonomous systems, health and biosciences, or sustainability and human rights
      iv. External funding from specific agencies and granting mechanisms, contracts, or external partnerships
      v. Broader societal impacts consistent with the University’s commitment to advancing the common good
   f. Estimated total budget

2. Curriculum Vitae or Biosketch for each applicant