

# Undergraduate Research at Gustavus

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At Gustavus Adolphus College, undergraduate research takes a variety of forms, reflecting the breadth of the liberal arts tradition. Research happens in the field, in the lab, and in the art studio. Research assignments and research methods are built into courses in many majors. Some students pursue their own research projects as independent studies. A few students participate in specialized off-campus summer research programs such as the Mayo Graduate School SURF Program and the Harvard Amgen Scholars Program. For most students who have a significant research experience, however, the research takes the form of collaborative research with a Gustavus faculty member that happens over the summer. The College supports faculty-student research through two programs:

## **1. The First-Year Research Experience (FYRE) Program.**

The FYRE program offers students in the summer between their first and second years the opportunity to conduct research with a Gustavus faculty mentor in the natural sciences and mathematics. Currently the program funds six rising sophomores, selected through a competitive application process. Students and faculty mentors are supported with a stipend for the ten-week research experience, and the students also receive on-campus housing. FYRE students present their research at a weekly research seminar over the summer and participate in community-building activities. The FYRE program offers a great hands-on research experience for students early in their careers.

Additional funding will allow the College to expand the FYRE program from 6 to 9 rising sophomores and also offer 3 rising juniors or seniors who have previously participated in the FYRE program the opportunity to engage in a second research opportunity. For students with a track-record of success and interest in research, this second research opportunity can have a transformative impact on their learning and career opportunities. Faculty stipends would be increased to match those for Presidential Faculty-Student Collaboration Grants.

## **2. Presidential Faculty-Student Collaborative Grants.**

Presidential Faculty-Student Collaborative grants support collaborative research between faculty and students over the summer. The students are typically rising juniors or seniors; most grants proposals pair one student with a faculty collaborator, though in some cases the collaboration has involved two students. Students and faculty members are supported with a stipend for the ten-week research experience, and the students also receive on-campus housing. Currently five or six grants are funded annually; these are selected through a competitive application process.

Currently priority is given to “quality proposals submitted by candidates who have not been funded through a Presidential Student/Faculty Collaboration grant in the past three years.” This restriction makes it hard for faculty who are interested in collaborating with students on research projects that have a longer trajectory to plan for these projects. Based on the recommendations of the undergraduate research working group, the Presidential Faculty-Student Collaborative Grants will be modified to allow multi-year (up to 3 consecutive years) proposals. Faculty students and students would still submit a joint proposal in the first year of a multi-year proposal. The faculty member would then select student collaborators for subsequent years. The faculty member could choose to continue collaborating with the same student(s) or select new student collaborators. Continued funding would be contingent on submission by the faculty

awardee of a progress report and approval by the Faculty Development Committee of continued funding based on satisfactory progress in the research project.

### **3. Flexible Research Fund**

This proposed new source of funding for student, faculty, and faculty-student research is designed to fund proposals that don't fit the funding parameters of the FYRE or Presidential Faculty-Student Collaborative grants. For faculty, this Flexible Research Fund will replace the current Research, Scholarship, and Creativity grants, expanding the types of proposals supported. These proposals could include the following:

- Travel to research sites (e.g., for data collection, archival work etc.).
- Travel to conferences to report research results.
- Costs incurred in conducting research (including supplies and clerical help).
- Costs incurred in conducting off-site research or participating in research at another institution (e.g., travel and housing to work in a lab at another institution or participate in an archaeological excavation).
- Costs incurred through research conducted during the school year.
- Independent student research with a Gustavus faculty sponsor but without a Gustavus faculty collaborator.

Applicants submit a project proposal describing the project, including objectives and procedures, as well as a project timeline and itemized budget. For student proposals, the proposal must also identify a Gustavus faculty sponsor and include a description of the role that the faculty sponsor will play in the project. Before a student application is reviewed, the faculty sponsor must send an endorsement. This brief statement should express the sponsor's assessment of the project's feasibility and merit, the student's ability to complete the project, and the relevance of the project to the student's academic program. Those awarded funds are required to write a brief (1-2 page) report on their activities and outcomes; these reports may be shared with donors and the general public.

Applications will be accepted on a rolling basis and reviewed at three points in the academic year: mid-September, early November, and mid-February. The Faculty Development Committee will serve as the selection committee.

### **4. Faculty Time**

Since for many faculty time is the limiting factor in involvement in undergraduate research, it has been proposed that undergraduate research be counted towards a faculty member's teaching load. The Provost Office is willing to develop a system for time devoted to undergraduate research to be considered in lieu of a taught course (e.g., a banking system whereby a set number of independent studies earns a course release).

# Flexible Research Fund

This proposed new source of funding, modelled on the [Asher Research Funds](#) at DePauw University, is designed to fund a broad range of student, faculty, and faculty-student research projects. For students, it will fund projects that don't fit the funding parameters of other internal funding opportunities, such as the First Year Research Experience or Presidential Faculty-Student Collaborative grants. For faculty, this Flexible Research Fund will replace the current Research, Scholarship, and Creativity grants and expand the types of work supported. Supported projects could include the following:

- Travel to research sites (e.g., for data collection, archival work etc.).
- Costs incurred in conducting research (including supplies and clerical help).
- Costs incurred in conducting off-site research or participating in research at another institution (e.g., travel and housing to work in a lab at another institution or participate in an archaeological excavation).
- Costs incurred through research conducted during the school year. This research could include further development of research that begins as coursework.
- Independent student research with a Gustavus faculty sponsor but without a Gustavus faculty collaborator.
- Student travel to conferences to report research results.

Applicants submit a proposal describing the project, including objectives, work plan, and expected outcomes, as well as a project timeline and itemized budget. For student proposals, the proposal must also identify a Gustavus faculty sponsor and include a description of the role that the faculty sponsor will play in the project. Before a student application is reviewed, the faculty sponsor must send an endorsement. This brief statement should express the sponsor's assessment of the project's feasibility and merit, the student's ability to complete the project, and the relevance of the project to the student's academic program. Those awarded funds are required to write a brief (1-2 page) report on their activities and outcomes; these reports may be shared with donors and the general public.

## **Timeline and selection process**

Applications will be accepted on a rolling basis and reviewed at three points in the academic year: mid-September, early November, and mid-February. The Faculty Development Committee will serve as the selection committee, with the Director of Undergraduate Research, Scholarship, and Creativity and the Kendall Center Faculty Associate for Research, Scholarship, and Creativity serving as ex officio members of the selection committee.

## **Funding parameters**

- Funds will be divided into installments so that a certain amount is available for disbursement following each review point.
- Funds will be allocated in such a way that each category of project (i.e, student, faculty, and faculty-student) will be assured a certain level of funding for meritorious (i.e., approved) proposals. Unused funds from one category can be applied towards meritorious proposals from a different category as needed.
- The amount available for student research will not be smaller than the amount currently available in the student conference travel fund.
- The amount available for faculty research will not be smaller than the amount currently available for RSC grants.

- Successful proposals by pre-tenure faculty will be fully funded, up to a certain amount. Other successful proposals will receive a minimum threshold of funding, with additional funding dependent on the number of other applications.

Flexible Research Fund vs PDAs: The Provost Office is currently working to fund Personal Development Accounts (PDAs). Funding for faculty research will be available only *after* a faculty member has drawn down the funds from her/his Personal Development Account (PDA).

Faculty Conference Travel: Funding for faculty conference travel will not typically be funded from the Flexible Research Fund.