2023 Technology Fee Full Proposal Submission Form

Concept papers are the first stage for the Technology Fee Advisory Committee to review and select those invited to submit a full proposal in the second stage of the grant process. This Committee acts in an advisory capacity to the CIO, who will decide on projects to be funded and implemented.

Process:

This is the second stage of the grant process.

1) Your concept paper was selected to move forward, and as a PI you are invited to submit a full proposal. It must still strictly adhere to the requirements below and submitted to the Committee by the required deadline.
2) The Committee will review the submitted full proposal and accept or reject it.
3) Accepted proposals will be forwarded with a recommendation for funding to the CIO.
4) The CIO will make a final decision on project proposals to be funded.

Requirements:

1) Full Proposals must address the criteria below and listed on https://it.ufl.edu/community/technology-fee/scoring-criteria/.
2) Full proposals must be submitted in the required template.

*The core UFIT units and their respective contacts are:

- **Academic Technology (AT)**, The Office of Academic Technology (AT) provides resources, technical assistance, and equipment to assist the University of Florida faculty, staff, and students. The three general divisions of AT include support for media services, instructional technology, and teaching/learning.
  Mark McCallister, Director markm@ufl.edu
- **Applications, Development and Integrations (ADI)** supports, builds and integrates university-wide cloud and on-premise applications in support of UF's faculty, staff and students. **Nicole Jeffers,** Director ngarvey@ufl.edu
- **Customer Experience & Resources Planning (CERP),** informs the university of IT services, support, and systems, conducts a year-round feedback and listening program, servers as campus advocates for enterprise IT improvements, and manages enterprise-wide technology projects for UF. Alicia Turner, Director, aliciatu@ufl.edu
- **Data Platform and Analytics (DPA),** provides reporting and visualizations, analytics, data engineering, master data management, application integration platform, database administration, and data science services to the university. *Jim Freymann, Director, jim.freymann@ufl.edu.*
- **Infrastructure & Communication Technology (ICT)** manages the UF Data Center and delivers hosted server, storage, virtualization, database, email, and related system and connects the University of Florida campuses and UF to the world via high-speed data, video, Wi-Fi, telecommunications, and VoIP services.
  Saira Hasnain, Associate CIO and Senior Director, saira.hasnain@ufl.edu
- **Information Security (IS)**, Information Security has a mission to preserve the confidentiality, integrity, and availability of restricted and critical data of the University.
  Rob Adams, Chief Information Security Officer, Information Security, rob@ufl.edu
- **Research Computing (RC)**, Research Computing, and the High-Performance Computing Center provides high-performance computing resources and support to UF faculty whose research

depends on large-scale computing.
*Erik Deumens, Director deumens@ufl.edu*Scoring Criteria

Full proposals will be scored using the following criteria:

Scoring Criteria for Technology Fee Full Proposals	
Criteria	Points
The project promotes an exceptional academic environment through the innovative use of technology.	Required[1]
A college dean or director certifies that the project serves the institutional mission and is aligned with the University of Florida strategic plan.	Required[1]
A UFIT associate CIO or director[2] certifies that the proposal is technically feasible, and the initial budget request is a reasonable first approximation of funds required for success.	Required[1]
If the project requires recurring resources, the concept paper and proposal must include a viable sustainability plan[3].	Required[1]
The project is innovative in delivering a new service, resource, implementing a concept or delivery method, and not simply upgrading existing services or facilities.	Required[1]
The 2-year project budget includes only technology items and does not include salary, services, facilities, furniture, and similar items.	Required[1]
The project meets all ADA[4] requirements and complies with the UF Electronic and Information Technology Accessibility Policy.	Required[1]
The project outlined in the concept paper improves student learning experiences.	
The project improves the capacity to create, innovate, and high-quality learning environments.	
If the project is to be used in or by courses, it includes the involvement of course instructors utilizing the technology.	
The project can reach students, faculty, and staff across the University and beyond to achieve a common good.	

The project outlined in the concept paper efficiently uses existing resources and services (does not duplicate services or infrastructure).	
The project improves the technical skills, competency, and success rate of students.	

[1] Proposals not meeting this requirement will not be considered.
[2] These are direct reports to the CIO.
[3] Recurring funds must be provided by the unit of the proposer or generated by the project.
[4] The American Disabilities Act (ADA) requires that Web and other resources provide individuals with disabilities an equivalent experience to individuals without disabilities

Instructions:

In filling the attached template make sure that the requirements in the Scoring Criteria Table are met. Concept Proposals not meeting the requirements will not be considered. Also note how the full proposals are scored and address each of the scoring criteria in your proposal.

The template includes the following items:

1) **Title**: Make sure that the title is descriptive and short. Avoid technical jargon and focus on the benefits of the project.
2) **Proposer**, affiliation and, contact information: Make sure that a contact person is clearly identified, as well as the person's affiliation and contact information (***email, department, unit or organization, physical address, and phone***).
3) **Purpose**: What is the proposal intended to improve or facilitate? Why is it important to do so? What are the expected outcomes? How is this project innovative, and could it be scaled in the future? Clearly outline the objectives of this project so that it can easily be determined if they are achieved by the end of the project.
4) **Impact/Benefit**: Who benefits? In what ways? What are the implications of how this project is innovative? Does it leverage existing resources?
5) **Sustainability**: If the project requires recurring resources, how will these be acquired? Who will be responsible and is committed to providing these resources.
6) **Timeline**: What specific activities are to be carried out, and when is each objective/benchmark achieved?
7) **Budget & Budget Narrative**: What is the expected cost of the project? Include startup costs, operating costs, and equipment costs when appropriate. A maximum of two years is allowed for budget.

Items 1-7 must not exceed four (4) pages. Do not alter the font or the margins.

Items 1-7 must be submitted electronically in the attached template to alallen@ufl.edu.

All materials must be received by the advertised deadline. Materials not received by April 7, 2023, will be returned to the proposer for submission in the next cycle

Title: Gradescope: An integrated grading platform for better assessments

Proposer: Heather Maness, Chris Sharp, Ryan Yang (Contact at ryan.yang@ufl.edu)

Sponsoring Organization: UFIT – Academic Technology

Purpose and Specific Objectives:

Feedback is one of the most powerful influences on student achievement and effective feedback can have a significant impact on learning outcomes. (Hattie, J., & Timperley, H. , 2007). Gradescope is a product that facilitates and provides efficiency in the grading and feedback process for instructors and students across all UF disciplines and levels. It utilizes automatic graders, collaborative grading, AI-based grouping, flexible rubrics, and feedback mechanisms to reduce the time requirement for faculty to provide detailed and rich feedbacks to students. It is designed to work with online and in-person assessments, with the capability to analyze hand-written (code, mathematical formulas, and graphs) assignments. The product can also serve as a replacement to Scantron bubble sheets and has a special assignment type for programming courses, providing a solution to automatically test programming code and comparing similarities. Large classes can split grading loads amongst TAs on a per-question basis (not available in Canvas), and graders can dynamically update the shared rubric to maintain consistency and fairness. Analytics are provided for insight into students' performance on each question.

A small pilot supported by UFIT started in Fall semester 2022 is on-going. Participation in the pilot includes courses from Herbert Wertheim College of Engineering, Warrington College of Business, College of Liberal Arts and Sciences and College of Agriculture and Life Sciences. We are seeking support for an additional 2 years to provide more opportunities for faculty and students to adopt and experiment with this product and understand its potential to improve student success and support students' learning experience.

Objective 1: To promote and support tools that facilitate fairness and equity in student assessment, as described in the recent guidelines for UF. We believe Gradescope is a tool that can help facilitate fair grading practices and have emphasized these features (e.g., anonymous settings, adaptive rubrics, analytics, supporting efficient grading of real-world questions) to our pilot participants. As one objective measurement, we are tracking instructor and grading TA feedback on their agreement that they are seeing an improvement in grading fairness. Any improvement is considered a success in our minds!

Objective 2: Provide timely and rich feedback to enhance student learning experience. We anticipate that instructors can transition their assessments to more meaningful, practical questions by having a tool help them efficiently grade this type of work and provide helpful feedback. Thus, our second metric is to evaluate if there is an increase into teacher insights of student learning progress and time saved.

Impact/Benefit:

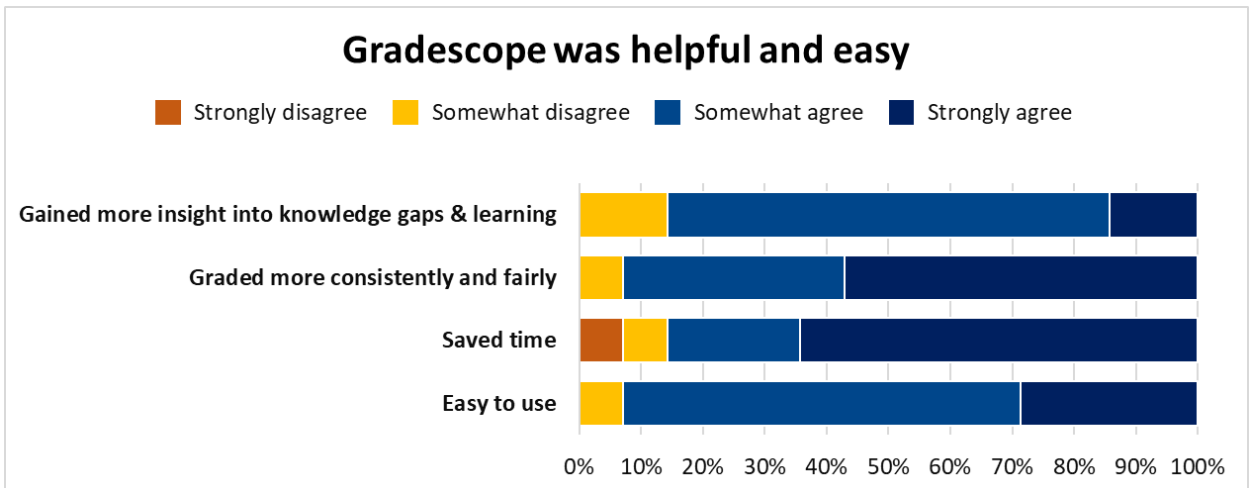Gradescope benefits students and faculty through:

- Fast and rich feedback for assignments
- Fairness and consistency among graders
- Transparency in grade breakdown
- Promoting more authentic and meaningful assessments
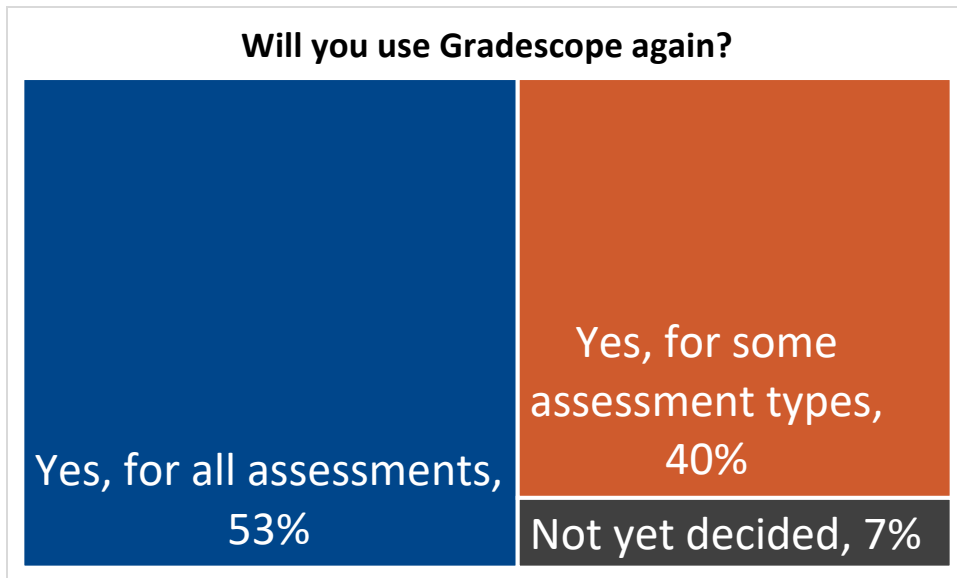- Efficiency in the grading process through AI and automatic grading

- Replacing an antiquated test scanning and scoring process

"Gradescope has helped us in delivering rich feedback to the students at scale, maintaining grading consistency across a large group of undergraduate teaching assistants, improving course staff productivity, detecting plagiarism effectively, and more importantly getting fine-grained analytics on students learning which is crucial for improving the student experience and tailoring course instruction to identify topics they don't understand. We should support this tool as it has a very high ceiling for innovation as instructors have the ability to write scripts for delivering feedback based on learner and course content needs." Professor Amanpreet Kapoor, Herbert Wertheim College of Engineering.

Early pilot results: In the Fall, we had 8 instructors try it in their courses (Eng, CALS, Bus, CLAS) with 79 assignments/exams and a total of 1,286 students. This Spring we expanded to 15 courses (plus 4 that are developing for future use) that have already created 73 assignments and are serving 1,241 students. Early pilot results from our Fall survey (n = 15, 5 instructors and 10 TAs) show that using Gradescope was easy to use, improved productivity, and helped them provide a fairer assessment to students (see graphs below). They would like to continue its use and apply the analytics to address remaining knowledge gaps and tracking students' learning progress. There were a few comments of there being a learning curve for instructors or students, but it was overall beneficial and worth the time investment. Some quotes showing their excitement are:
- "once everything is set, it has pretty high ceilings so we can innovate further and pretty much tailor specific feedback which is not offered by other tools"
- "I love the UI for Gradescope and feel that it is really easy to use. I graded many assignments and was able to slightly modify the rubric very easily."

Gradescope was helpful and easy

Will you use Gradescope again?

Yes, for all assessments, 53%	Yes, for some assessment types, 40%
	Not yet decided, 7%

Enhancing test scanning and scoring services use case: This has been a particularly helpful tool for the Astronomy department (CLAS). They had been relying on vintage software (about 30 years old) to create custom versions of multiple-choice exams for each student (by shuffling questions). However, the computer can no longer be updated with the latest operating systems and security settings while remaining compatible with the vintage software used to grade the bubble sheets. Gradescope provides the benefit of eliminating the purchase of costly Scantron answer sheets (they can print their own bubble sheets on standard paper) and offers them the ability to also ask open-ended questions and expedite grading of those responses. Occasionally, instructors would ask a handful of open-ended questions as Part II of an exam, but they were limited by grading resources in offering more of these preferred questions. Gradescope streamlines the grading of these Part II questions by grouping together similar answers using AI, and the adoption of Gradescope enables instructors to use more of these preferred question types and reduce their reliance on multiple-choice questions. They are currently re-evaluating their examination processes to match these latest tools available to them to their instructional preferences.

Sustainability:

With a 2-year pilot funding, it will allow the university to evaluate the needs and impact of Gradescope. An evaluation of the pilot will be conducted with the faculty and students to understand the impact in their teaching and learning process and provide recommendation if continuation with the platform proves to be beneficial. If the results from the pilot are satisfactory, we would request that UFIT consider funding the tool for a campus-wide license.

There are also potential cost savings for the university by replacing antiquated test scanning and scoring equipment and software applications with Gradescope. Gradescope features ability to allow scanning of tests through general scanners available at most university offices. This will eliminate the needs for university to maintain dedicated test scanning equipment and software applications. The estimated cost saving is $14,000/year.

Timeline:

Phase 1 (Fall 2023) – Expanding pilot participation.

Recruiting additional faculty across disciplines to participate in the pilot. Provide instructor support and consultation through UFIT Center for Instructional Technology and Training. Aim to double the current pilot numbers in year 1 in Fall 2023.

Phase 2 (Continuous through the 2 year pilot) – Evaluation and feedback

Design and survey pilot participants (instructors and students) each semester. The cumulative results help to identify impact and effectiveness of the tool. It will inform if a campus-wide license would be warranted.

Budget:

As a Unizin institution, UF leverage the pre-negotiated discounted pricing for the Gradescope pilot at $8 per student. The current pilot is being utilized by 1500 students, we anticipate the numbers to double for each year of the extended pilot. Further discount for campus-wide license is available.

Year 1 request (3000 students) - $24,000

Year 2 request (6000 students) - $48,000

Total request for 2 years – $72,000