

Division of Academic Affairs
Technology Fee – ITEP Proposal
2019

Proposal Deadline: Friday, March 1, 2019 @ 5:00 pm

Project Proposal Type

Instructional Technology Enhancement Project (ITEP)

Focused projects proposed by an individual or small team with the intention of exploring new applications of instructional technology. ITEPs will typically be led by a faculty “principal investigator.” ITEPs are time-limited projects (up to two years in length) and allocations of Technology Fee funds to these projects are non-recurring.

Project Title

Enhancing Undergraduate Research in Teaching Labs Through JoVE Video Journal

Total Amount of Funding Requested

\$17,060 for 2-year subscription (\$8,530 per year)

Primary Project Coordinator

*Hillary Fox
Head of Reference
Science Librarian
UWF Libraries*

Division of Academic Affairs

Instructional Technology Enhancement Project (ITEP) Proposal: Enhancing Undergraduate Research in Teaching Labs with JoVE Video Journal

**UWF Libraries in Partnership with the Hal Marcus College of Science and Engineering
and the Usha Kundu, MD College of Health**

February 2019

This is a proposal for the purchase of the database JoVE Video Journal, which offers digital streaming access to an extensive collection of explanations and tutorials of published, peer-reviewed journal articles for biology, chemistry, medical lab sciences, engineering, and other disciplines. This collection is one of the only peer-reviewed video method journals. Faculty in the Department of Biology and the Department of Medical Lab Sciences have committed to using the video journal to enhance undergraduate research, yet the content in the database will benefit other departments in HMCSE and UKCOH. The one-time cost for a 2-year subscription is \$17,060.

1. Project Description

The literature suggests that a combination of a structured program and an environment with multimedia applications, such as videos, can provide an opportunity for learning (Vogel & Harendza, 2016). Additionally, students who received face-to-face training and used supporting video tools in a laboratory environment were shown to be more confident in their laboratory skills and were more successful when performing a procedure alone (Truebano & Munn, 2015). This project aims to enhance quality and productivity of undergraduate research in biology, chemistry, medical lab sciences, and other courses that offer a teaching lab component by embedding JoVE Video Journal in the curriculum. The courses and programs that will benefit from the collection are those that the Florida Board of Governors has identified as Programmatic

Strategic Emphasis, specifically for critical workforce in the health sector and economic development in the STEM sector.

JoVE Video Journal is the leading peer-reviewed, PubMed-indexed video methods journal that contains experimental techniques in a visual format (JoVE, 2018). The videos offer experimental techniques for a variety of subjects that are offered at UWF, including genetics, lab safety, developmental biology, methods collection, inorganic chemistry, biochemistry, and organic chemistry, as well as neuro- and social psychology. The subject matter and skills addressed in the video are requisite skills that can prepare students for real-world research skills. The subject matter encompasses the disciplines found in the College of Science and Engineering (HMCSE) as well as the College of Health (UKCOH). For example, content in JoVE Video Journal aligns closely with the curriculum in Medical Laboratory Sciences as well as research initiatives and labs in the Department of Biology. The Video Journal contains resources on lab safety, methods of collections, cancer research, and other techniques that support the clinical curriculum. By enabling the use of JoVE in the clinical classroom, students will also be more prepared for their hospital rotations. Similarly, the UWF Biology Coquina Research Experience (UWF BIO-CoRE) can use the biology related lab materials in the database to help establish research skills and develop strategies for academic and career success.

Purchasing the Video Journal package will allow the University to remain competitive with its laboratory science programs and undergraduate research initiatives when compared to the state. Several peer institutions own this resource, including those with very high research activities. As the University of West Florida continues to attract STEM learners and continues grow in areas of strategic emphasis, the JoVE Video Journal collection helps to cultivate undergraduate student to advance their research skills, adding high impact practices and preparing students for graduate and professional schools.

References

JoVE. (2018). *Video journal*. Retrieved from <https://www.jove.com/journal>

Truebano, M. & Munn, C. (2015). An evaluation of the use of video tutorials as supporting tools for teaching laboratory skills in biology. *Practice and Evidence of Scholarship of Teaching and Learning in Higher Education*, 10(2), 121-135.

Vogel, D. & Harendza, S. (2016). Basic practical skills teaching and learning in undergraduate medical education: A review on methodological evidence. *GMS Journal of Medical Education*, 33(4), 1-19

2. Project alignment with UWF Strategic Plan

The University's current mission statement establishes a commitment to "provide high-quality undergraduate education" and to "conduct teaching and research that services the body of knowledge." This project would directly empower our students to seek out knowledge and to contribute to their respective disciplines by providing them with access to information that they need to support their education and production of research while here at UWF. In regards to UWF's institutional values, this project supports caring by "maintaining a dynamic learning... environment that fosters the development of individual potential"; creativity by allowing students to critically think about research occurring within the lab where they can "express different approaches and solutions to existing and anticipated needs and challenges"; and innovation by allowing students to develop strong laboratory techniques and solutions through "exploring, expanding, and enhancing learning as well as knowledge through transformational experiences." In addition, this proposal is in direct aligned with several specific portions of the University of West Florida Strategic Plan (2017-2022):

- **Strategic Direction 1: Learner Centered and Focused**

- **UWF Priority 1.1: Provide high-quality learning and co-curricular experiences that inspire students to become enlightened and engaged global citizens and successful professionals**

Access to such high quality, peer-reviewed collection of significant experimental and laboratory techniques relates directly to enhancing student learning and development. The videos will enrich laboratory sections and help students engage in active learning through observation and practice.

- **Strategic Direction 3: Academic Programming, Scholarship, and Research**

- **UWF Priority 3.1: Build programs of distinction that enhance UWF's reputation for education excellence**
- **UWF Priority 3.2: Develop and retain a culture that supports research and creativity**

High-quality academic programs demand access to high-impact, practical

resources such as the JoVE Video Journal database. Access to this database will allow faculty to better support undergraduate research by using innovative videos as a supporting tool for their curriculum. Mastering the laboratory techniques with the assistance of JoVE will enable students to excel in the STEM field, such as: clinical curriculum and the BIO-CoRE program.

3. Description of Benefits Provided

a. Student access to technology will be enhanced

Digital access to the JoVE Video Journal database will enable faculty to actively use the materials in instruction and research, and the content would be accessible anytime to all UWF users, including online students and distance learners. Users will be able to access the materials from any point, at any time using their ArgoNet credentials.

b. Student experience will be enhanced

The content of the JoVE Video Journal database will directly support student learning by providing materials that will help students practice and refine their laboratory techniques. Furthermore, the videos can be incorporated into Canvas and there is not a limit as to how many users can access one video at one time. Use of these videos will help students gain a tacit knowledge of laboratory procedures and skills that can be difficult to convey with standalone lecture. Ultimately the addition of JoVE Video Journal complements the regular courses offered by HMCSE and UKCOH to prepare undergraduate students for career tracks, including professional schools, graduate schools and other types of STEM workforce.

c. Assessment

Assessment of JoVE Video Journal will occur through the collaboration of multiple departments:

1. The Libraries can assess usage statistics for the collection and also solicit student and faculty feedback.

2. Instructors that embed JoVE within their courses can assess the database through student and departmental feedback.
3. Surveys of faculty and student satisfaction as well as the student's ability to complete a technique on their own will help the departments gauge the usefulness and the technology

d. Which and how many students will be impacted?

Students enrolled in the HMCSE and UKCOH, such as those in Medical Laboratory Sciences program, the Biology program (specifically students taking courses of Genetics, Developmental Biology and Cell Biology), as well as those enrolled in classes taught by faculty who have specifically requested the Video Journal collection will benefit. So far, 8 faculty of Medical Laboratory Sciences program and Biology program have expressed interest in integrating this product into their courses. Outreach and product awareness initiatives will broaden the benefit of JoVE to departments and courses outside of the aforementioned. The collection contains video journals that directly apply to the courses taught in other disciplines of HMCSE and UKCOH. Some examples of other departments are, but not limited to, chemistry (organic, inorganic, and analytical), psychology (neuroscience), and engineering (methods in electrical and mechanical). The courses and programs that will benefit from the collection are those that the Florida Board of Governors has identified as Programmatic Strategic Emphasis, specifically for critical workforce in the health sector and economic development in the STEM sector.

e. Students with special needs and disabilities.

Since the collection consists of videos, students will be able to pause, rewind, and replay the videos as often as they need. Each video also comes with a PDF-text version of the video content, allowing students to have an alternative and effective way to get the video content.

f. Training of students and faculty in the use of technology would be enhanced

The team of faculty that wrote this proposal will work with other departments in HMCSE and UKCOH colleges to encourage integration of the video journals into appropriate courses. JoVE

also provides easy-to-follow and user-friendly support videos to assist with the integration.

4. Description of how the initiative has a potential scope within and beyond that of the proposing unit.

This initiative is proposed by UWF Libraries, the Department of Medical Laboratory Sciences, and the Department of Biology. While the Video Journal collection will enhance student performance within their courses, the videos serve a purpose that extends beyond the students' career at UWF. Integrating the videos as tool that supports faculty teaching and student learning will help graduate students that are work force ready and understand the scope and importance of their role within the lab. Enhancing the laboratory experience will help students better understand what is needed to ensure excellence in patient care, scientific innovation, and the creation of new knowledge.

Although two academic departments have requested this teaching tool, future plans to advocate for and bring awareness to the collection will benefit programs outside of those two units. JoVE Video Collection also contains methods and techniques for Electrical Engineering, Mechanical Engineering, Computer Science, Organic Chemistry, Inorganic Chemistry, Analytical Chemistry, Public Health, and Neuropsychology. The programs that will benefit are also those that have been identified by the state as Areas of Programmatic Strategic Emphasis. Students will be better prepared for the economic development and workforce needs of the state if they have graduated UWF mastering the skills addressed in the JoVE collection.

5. How will success be measured? Provide metrics.

Assessment of the impact of using JoVE Video Journal will be measured through several angles of our learning environments, including:

- The Pace Library: the library can assess usage statistics for the collection, including the number of views each video has. The library can assist HMCSE and UKCOH solicit student and faculty feedback about the collection.
- Instructors that embed JoVE within their courses: these faculty can assess the database through student and departmental feedback.

- Surveys currently implemented in the BIO-CoRE program, and the NSF STEM grant of HMCSE: These surveys assess factors impacting student satisfaction and student's learning outcome. A very important student learning outcome is the skill of completing a task/project. We can survey the gain of the student's ability to complete a research project on their own by using JoVE Video Journal. This assessment will help the departments gauge the usefulness and the technology of JoVE.

6. Description of resources for the project and projected ongoing resource needs (total cost of ownership for the life of the project) including:

a) Any hardware requirements (which should comply with standards established by the ITPAC (Information Technology Planning and Advisory Committee)).

None

b) Any software requirements (which should comply with standards established by the ITPAC).

None.

c) Any personnel costs – only OPS and other time-limited appointments, non-recurring.

None

7. All Tech Free Proposals must be reviewed by ITS prior to submission. Please provide your JIRA Ticket ID# here.

TF-78

8. Provide the proposed timeline for the project with major milestones and project end dates.

1. Purchase of JoVE Video Journal will be initiated immediately upon successful funding. Once the order is placed, access to the collection will be available in several days.

2. Send out survey, garnering interest in the product.
3. Make colleagues aware of the new technology and encourage them to use it. This will include informational meetings and live demonstrations on how the product can assist with teaching, and professional development in teaching. The team behind this grant will identify relevant campus services and offices that can assist with the outreach (e.g.: CUTLA)
4. Keep track of departments and courses using the product. Get library usage statistics on how many hits each video in the collection receives.
5. Send out survey to see what kind of impacts the collection has had on teaching and student learning.

9. Include a plan for sustainability of the project beyond the initial project period if applicable.

-We will seek commitment from the HMCSE and UKCOH colleges, as well as the university library budget.

10. Provide any resource matching which might be provided by organizations with appropriate commitment authority documentation.

-N/A

11. Indicate which individual or group will implement the project (to help determine any additional costs and resource restraints).

Hillary Fox, UWF Libraries

Katie Cavnar, Department of Medical Laboratory Sciences in the College of Health

Hui-Min Chung, Department of Biology in the College of Science and Engineering

12. Indicate a lead person (“Principal Investigator”) for the project for all communications and overall responsibility for reporting and fund utilization.

-Hillary Fox, Librarian, hfox@uwf.edu

13. Project proposals should be succinct and submitted to the Technology Fee Committee by the deadline with a notice of submission to the chair and the dean or appropriately designated leadership in the unit (Center Director, etc.).

[TF-78] JoVE Video Journal Database Created: 02/19/2019 Updated: 02/22/2019 Resolved: 02/22/2019	
Status:	No Concerns
Project:	Technology Fee
Component/s:	None
Affects Version/s:	None
Fix Version/s:	None

Type:	Request	Priority:	Medium
Reporter:	Hillary Fox	Assignee:	Sandra Thompson
Resolution:	Done	Votes:	0
Labels:	tf-2019-2020		
Remaining Estimate:	Not Specified		
Time Spent:	Not Specified		
Original Estimate:	Not Specified		

Attachments:	 TechFee_ITEP_JoVE_partialdraft.docx
Request participants:	
Location:	Library
Agreement:	I agree
Terms and Conditions Agreement:	I agree
Organizations:	None

Description

The library seeks to expand access to the already existing subscription to the JoVE database. By expanding the collection to include the JoVE Video Journal database, faculty in the College of Science and Engineering as well as the College of Health will implement the collection within their courses. Access to this collection will support the Colleges' and University's mission to promote undergraduate research.

The technology includes upgrading the library's current subscription of JoVE to include JoVE Video Journal. The library would maintain the subscription and the license to the database, just as they do with all other research databases. Anyone with Argonet credentials will be able to access the database by going through the library website.

Comments

Comment by Hillary Fox [02/21/2019]
Is it possible to get an expedited review for this request? Our Dean will be at a conference next week and unable to sign off on paperwork. Thank you!
Comment by Sandra Thompson [02/21/2019]
Hi Hillary, Please attach the proposal to this ticket and I will review it once received. Thanks!

Comment by [Hillary Fox](#) [02/21/2019]

Hi Sandra,
Will a draft of the proposal be acceptable? We are still editing the draft.

Hillary

Comment by [Sandra Thompson](#) [02/21/2019]

Yes, that is acceptable..my role is to mainly make sure there aren't any potential IT issues/concerns, but since this is an upgrade to an existing service, I feel confident it will be fine.

Comment by [Hillary Fox](#) [02/21/2019]

Hi Sandra, I've included a partial draft of the proposal. This will not be the final document we submit, but it at least gives you an idea of what we want to do once the library upgrades its database. Please let me know if there's anything else we need to do.

[TechFee_IJEP_JoVE_partialdraft.docx](#) (20 kB)

Comment by [Sandra Thompson](#) [02/22/2019]

Hi Hillary,
From ITS 's perspective, the proposal looks fine. I did talk with your LSP, Fred to verify the plan for incorporating Argonet credentials for access to this site (if proposal is funded.) The other assumption is that instructors will just add a link in Canvas rather than expect any integration?

Comment by [Hillary Fox](#) [02/22/2019]

Hi Sandra,
With regards to the argonet credentials, that is no different than anyone trying to access any other resource the library has. Anytime a student (or fac or staff) go off campus, they have to authenticate themselves on the library website (or in myUWF) to access our materials. Although this is a "tech fee", there isn't a lot of "tech" that will need any modification or implementation since this is just like any other database we have.

For Canvas integration, it is possible (according to our JoVE reps) to link a video to Canvas. Since the students are authenticated when they log into Canvas, there shouldn't be any tech issues or copyright violations. If the instructor uses a link to a video (which most do), the link will redirect the user to the library and the user will be prompted to reenter their argonet credentials. This is the same case for all other databases and articles we have that instructors direct their students to. I realize I'm probably a broken record by saying that, but I want to make sure that ITS knows this doesn't require any special accommodations that the library doesn't already manage.

I hope that helps! You've been a huge help during this process.

Hillary

Comment by [Sandra Thompson](#) [02/22/2019]

Very helpful, thanks for the response. I will close the ticket with "no concerns" and you can submit to Provost when ready. Good luck!

Comment by [Sandra Thompson](#) [02/22/2019]

No concerns from ITS.

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