# **Tech Initiatives Proposal Form**

Student Technology Fee – AY 2024

**Employee Due Date: March 22, 2024** (revised from March 29)

**Student Due Date: March 22, 2024**  (revised from March 29)

## **Key Proposal Information**

Note: Enter information in the expandable fields directly after the information requested.

## **Project Title:** Expanding Access to Social Science Research Opportunities and Data Analysis Training

## **Briefly explain what you are requesting (400 characters max):** We seek $17,585.64 to add 13 workstations to the Tedrow Lab for Demographic and Social Research (AH501), which allows the Sociology Department to expand student opportunities for research mentorship and data analysis training. This effort coincides with other recent investments by the Department to enhance student experiences by increasing access to and integration of technology in our curriculum.

### **Principal Applicant**

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## **Important Proposal Notes**

1. Student Technology Fee Mission:

The Student Technology Fee (STF) provides Western students with adequate and innovative technology experiences by:

1. Broadening/enhancing the quality of the academic experience.
2. Providing additional student access to technology.
3. Increasing integration of technology into the curriculum.
4. The STF Committee will accept only complete proposals by the announced deadline. Every section (I-VIII) and all items of this proposal form must be addressed.
5. Disallowed items: The following five items generally **do not qualify** for STF Tech Initiatives funding:
6. Computer lab upgrades. (Existing computer labs are upgraded on a rolling schedule with a separate allocation of STF funds.)
7. Software related to maintenance and/or serial payments.
8. Maintenance contracts on equipment or software.
9. Expendable supplies.
10. Equipment that will not be used directly by students, and/or non-computer equipment or furnishings that are part of the typical classroom environment (such as lighting, portable and fixed media equipment, furniture, chairs, etc.).

## **Proposal Instructions**

### **I. Relationship to STF Objectives / Impact on Student Academic Experience**

1. The STF Committee uses as its primary assessment criteria the three objectives—**quality, access, and integration**—defined in the STF mission (“Note 1” above). Given these criteria, explain how the project would provide positive benefits to students. Focus on what students would gain from the project. Specifically, answer at least one of items a, b, or c below:
2. How would this project *broaden or enhance the quality* of the student’s academic experience through the proposed technology?

The Tedrow Lab for Demographic and Social Research (hereafter, the Tedrow Lab or simply the Lab) expansion is a key component in the Sociology Department's larger initiative to stengthen opportunities for students' data and methods training. We were recently approved to launch a new certificate in Social Science Data Analysis, which students can earn by completing additional quantitative methods training offered by the Lab. This certificate will enhance our students' academic experience by equipping them with a strong background in applied data-science skills, preparing them for success in data and computer-science adjacent careers or grad school programs in ways that supplement existing training in the department.

The certificate program offers three new courses that will be taught in the Lab. In these courses, students will gain firsthand experience learning to perform a wide variety of data operations ranging from cleaning and analyzing big, administrative datasets to generating data visualizations that aim to communicate complex social relationships to the general public. These courses will be taught by a new tenure-track faculty member (Pendergast) who has experience working with research non-profits as well as state and federal government, which makes him uniquely suited for broadening our students' methods training in ways that apply directly to the workforce. While our other classes might teach students to use quantitative data and statistical methods to produce basic examples of traditional academic research, the new courses will draw from Pendergast's experience to expose students to different ways that research is used in the "real world", helping to teach students practical ways to apply data science techniques to accomplish goals that might be more aligned with supporting the research needs of a public health organization, the governor's office, or a federal statistical agency. These applied experiences, which we expect will result in up to 20 students a year earning an additional credential on their transcripts, enhance the education that students can receive in our department to improve their job prospects and increase the chances of doing work in a field adjacent to their interests, where they might be able to maintain work while pursuing research in those topics that they are most passionate about.

Aside from expanding coursework and job-relevant training for our students, the expanded lab will also enhance students' academic experience by helping to foster a more inclusive culture of participation and faculty mentoring around research. Recent changes to the physical spaces in our department, such as establishing a student lounge and food pantry, have increased utilization of shared spaces dramatically and have helped to connect students to each other and with faculty in unanticipated and positive ways. This informal setting is very important for some students. After all, not all students are equally comfortable asking to be involved in research opportunities, and many are completely unaware that such opportunities exist. Being located just down the hall from our student lounge, the Tedrow Lab can and should be a space that helps students gain exposure to and feel invested in research, regardless of their background, underprivileged status, or level of assertiveness, by providing a community setting in which student-faculty collaboration is accessible, normative and encouraged. While the Lab is currently working to do this and provides space for students and faculty to meet and practice research skills, it is often at capacity and cannot be used for full class meetings or larger presentations, where engagement with technology might best enhance learning. By expanding the Tedrow lab, we will be investing in a shared space just down the hall from the student lounge that is welcoming to all students and has sufficient capacity for a variety of activities that enhance the culture of research and collaboration in the department.

1. How would this project *provide additional student access* to technological resources?

The Tedrow Lab expansion will more than double its capacity, ensuring that more students have access to the technology necessary to gain expertise in coding, data management, and research skills that predict success in today's job market. These skills require training in programs like R, SPSS, ArcGIS, QGIS, and ATLAS Ti, but many of our students use Chromebook laptops that lack the infrastructure to run these programs. For these students, having access to computers on campus that can run these programs is an integral part of ensuring they can be successful in their coursework. This will be especially paramount for students that hope to become involved with collaborative research or more advanced data-science training, such as for those interested in pursuing the new certificate. It is our responsibility to ensure that all our students have equal access to these programs both in and outside of the classroom, and increasing our capacity for these important technological resources in a shared space that students already know about but that is sometimes too busy too meet current demands will ensure that there is always a seat at a computer equipped with the necessary programs for someone who needs it.

In addition to simply providing more access via expanded capacity, the Lab will also expand its programming to better facilitate meaningful student interaction with the technology. The Lab director and Lab TAs/RAs will begin holding regular office hours where they will provide drop-in assistance related to statistical tutoring, coding, and research mentorship. This should help a broader array of students not only be able to access, but be able to succeed in navigating this technology for their classes.

1. How would this project *increase integration* of technology into coursework?

Expanding the Tedrow Lab provides the Sociology Department with access to a desireable instructional space that is fully equipped with the technology necessary to expand our students' training in data science methods and research. There are small but significant differences in how certain programs behave across different operating systems (most notably, programs like ArcGIS Pro do not run on Mac, but there are also noteworthy differences in programs like R and QGIS as well that can be confusing to students learning on one operating system and trying to apply these skills on another), which present roadblocks to fully integrating technology into our curriculum in ways that are equitable. By bringing the number of workstations in the Tedrow Lab up from 9 to 22, we will have a sufficient number of machines equipped with R, R Studio, SPSS, ArcGIS, QGIS, and ATLAS Ti to fully support the kinds of hands-on methods training that we strive to provide in our upper-divison methods and capstone courses.

At least five of the courses in our catalog (SOC 320, 426, and the three new courses that are part of the certificate, SOC 423, 424, and 425) require students to use computers to practice coding and data management skills during every class meeting. These classes integrate technology into the curriculum directly by teaching general linear modeling, quasi-experimental design, hierarchical data analysis, and other more general research and data management skills in R. In addition, we are teaching five capstone courses in AY24-25 (SOC 456, 497L, 460, 469, 497F) that require student access to statistical applications at least weekly. By expanding the Tedrow Lab, we will be able to hold all of these classes in the same space and ensure that our students have access to the specific array of programs necessary to succeed in these courses.

1. Would other departments be involved with this project? Enter “No “ or “Yes”. No

IF “Yes,” describe. IF “No,” enter “N/A”.

N/A

1. Has any part of this proposed project previously been funded by the Student Technology Fee? Enter “No” or “Yes”. Yes

IF “Yes,” describe. IF “No,” enter “N/A”.

It is likely that some of the funding for the initial lab setup came from Student Technology Fees. However, we no longer have records of where this initial funding came from, so we cannot say definitively.

1. Is the proposed project a pilot project? Enter “No” or “Yes”. No

IF “Yes,” describe. IF “No,” enter “N/A”.

N/A

### **II. Utilization**

List the anticipated number of times and duration per each use—per quarter or per academic year—that students would use the proposed technology, along with the impact of that proposed technology on students. Note: Proposals are funded after careful consideration of both the number of students that will be impacted by the technology and by the quality of that impact.

In AY 2023-2024, we were able to offer one class with small enrollment in the Tedrow Lab:

Winter 2024:

• SOC 320: Computer Applications for Social Science Research (4 hours per week), 7 students

For AY 2024-2025, the following eight courses will be offered in the AH 501 lab should this proposal be funded:

Fall 2024:

• SOC 320: Computer Applications for Social Science Research (4 hours per week), 20 students

• SOC 456: Seminar in Policing (4 hours per week), 15 students

Winter 2025:

• SOC 423: General Linear Modeling in R (5 hours per week), 20 students

• SOC 497L: Advanced Topics in Environmental Sociology and Sociological Animal Studies, (4 hours per week), 15 students

Spring 2025:

• SOC 426: Advanced Topics in Demography (4 hours per week), 15 students

• SOC 460: Advanced Topics in Family (5 hours per week), 15 students

• SOC 469: Advanced Topics in Race and Ethnicity (5 hours per week), 15 students

• SOC 497F: Social Movements and Social Change (4 hours per week), 15 students

Total projected enrollment: 130 students

Total hours of lab instruction: 350 hours

IMPACT: The expanded Tedrow Lab will improve the quality of instruction in these courses because the lab space will have windows and better lighting and heating than the computer labs in the basement of Arntzen Hall where these courses are most often taught. The quality of students’ experiences will also be enhanced by their access to a lab that is within the Sociology Department. Students will be able to walk a short distance to ask questions of faculty whose offices are on the same floor. Additionally, the Lab will be used for informal meetings between faculty and students, and by students working on independent research. The Lab Director and Lab RAs/TAs will hold office hours to support students working on data analysis projects and coursework. Overall, the Lab aims to bolster the culture of methods training in the Department by normalizing research mentorship and data analysis training, in a space that is integrated with other student-centered, community spaces in our Department.

### **III. Impact on Existing Resources**

Your proposal must address the project’s potential impact on existing resources. Give special attention to the impact on data transmission networks (e.g., sources accessed, networking equipment, etc.) and personnel (e.g., staffing, administrative support, faculty support, etc.).

1. Describe how existing equipment is used. Contrast this to projected use, if your proposal were funded.

The Tedrow Lab currently has 9 workstations, including one instructor station connected to a smart screen. The space is primarily used by students working on course work and for faculty/student collaboration on research projects. Students use the Lab to access SPSS, Atlas TI, R, and GIS software that is required by their coursework in addition to the standard WWU software. We estimate that over Winter quarter, 2024 the space was used by 10-15 students and 1-2 faculty each week for 2-3 hours per day. With the addition of 13 workstations, weekly projected usage would increase to 40-50 students and 3-5 faculty for similar amounts of time. However, utilization could be even larger than projected, given that Sociology is the fifth largest undergraduate major on campus. Data science-oriented students from other departments may also be interested in our new courses or in becoming involved with applied research opportunities fostered by the Lab, so it is difficult to predict the ways that the Lab could grow over the next five years.

Department Staff open the lab daily at 9:00 a.m. and close it at 5:00 p.m. on weekdays during the academic year.

1. Is similar equipment or technology available elsewhere on campus—such as with the Student Technology Center, Classroom Services, Video Services, Western Libraries, a college lab? Enter “No or “Yes”. Yes

IF “Yes, describe why existing equipment does not meet the needs outlined in this proposal. IF “No,” enter “N/A”.

Although there are other computer labs available on campus, there are no instructional labs available within the Sociology Department space. The Sociology Department has renovated AH 510 (our main office) to be a community space where students can connect with each other and with faculty. We provide coffee, tea, and hot chocolate, snacks for students, and a food pantry. Student utilization of this space has increased from zero to 5-15 students per day. The lab will offer a similar space just down the hall from the student lounge that promotes connection and community within the department, as well as increasing student access to faculty.

1. IF this project would involve the replacement of equipment, including computers:
2. Describe the “before and after” configuration changes. (A spreadsheet reflecting these changes may be attached.) Or enter “N/A”.

Please see the attachments for the current and proposed lab layouts.

1. Describe the costs and benefits of replacing vs. upgrading. Or enter “N/A”.

N/A

1. Would this equipment be available to students outside of your department? Enter “No” or “Yes”. Yes

IF “Yes,” describe the following (in the field below the a-d list). IF “No,” enter “N/A”.

1. How students would gain access.
2. How equipment availability would be publicized.
3. The hours per week when equipment would be available.
4. Any costs that would result from a-c.

a. Students outside of the department can enroll in the courses that will be taught in the Lab. During non-instructional hours the Lab is open to all students.

b. Sociology faculty regularly announce that the Lab space is available for student use in their courses. We will also begin advertising the availability of the new Social Science Data Analysis Certificate in the summer of 2024, as it will appear in the WWU catalog for AY 2024-2025. We will advertise the certificate and Lab office hours on Canvas and via social media (Department Facebook and Instagram pages). Lastly, we host an annual event each fall where we invite students to visit the Sociology Community Spaces and tour the Lab to raise awareness of the resources available to students in our Department.

c. The space is open weekdays from 9:00 a.m. - 5:00 p.m. Equipment is available to any WWU student, faculty, or staff member during times that classes are not scheduled in the lab.

d. There are no additional costs required.

1. Would this project involve the check-out of equipment to students? Enter “No” or “Yes”. No

IF “Yes,” discuss whether the Student Technology Center/ATUS Loan Pool could be assigned this task. IF “No,” enter “N/A”.

N/A

1. Does the department have adequate operating funds to provide ongoing maintenance and support? Enter “No” or “Yes”. Yes

IF “No,” describe the funding situation. IF “Yes,” enter “N/A”.

N/A

1. Does the department have adequate personnel to provide ongoing staff support for the project? Enter “No” or “Yes”. Yes

IF “No,” describe the staffing situation. IF “Yes,” enter “N/A”.

N/A

### **IV. Space and Site Information**

1. What is the location for installation of equipment or technology? Be as specific as possible.

The 13 additional workstations will be installed in the center aisle of the current lab (back to back with existing machines) and on the west and south walls of AH501. A map of the projected layout for the lab is attached.

1. Is this space/location currently assigned to your department or unit? Enter “Yes” or “No”. Yes

IF “No,” describe the current control of the space. IF “Yes,” enter “N/A”.

N/A

1. Would site modification be required? Enter “No” or “Yes”. Yes
Note: “Site modification” addresses site alteration—beyond specific equipment installation addressed in section V, Budget Estimate Table, line 13. Site modification significantly impacts infrastructure. This could include addition/integration of other systems required by the equipment install, such as electrical, air, lighting, security, network access, etc.; conversion of a lab or office; etc.

IF “Yes,” describe the site modification required. IF “No,” enter “N/A”.

There are currently 21 network jacks in AH501. We may need to install one additional network jack for the new workstations and activate existing jacks if they are not already active. If required, we will need to install security cables for the 13 new workstations. The Sociology Department has sufficient budget allocated to cover these installations.

1. Conditional Step 4: If you answered “no” to #2 above, or “yes” to #3 above:

You *may* need to submit a [Space Modification Request](https://app.e-builder.net/public/Processes/StartProcess.aspx?ProcessID=849829b0be0d47c4b6e270345a265b73&PortalTypeID=7) to Capital Planning and Development. The STF Committee will determine if this is necessary during proposal review, and will let you know. The results of the Space Modification Request form would affect lines #15 and #18 of the Budget Estimate Table.

### **V. Project Budget Estimate**

This section details the estimated cost of the project.

Budget Estimate Notes:

1. The STF Committee recognizes your proposed budget as an estimate. Final funding for successful projects will be established after thorough technical review. Some costs may need adjusting due to price changes.
2. The STF Committee may impose special conditions on a proposal before approval. (If interested, see *STF Tech Initiatives Proposal Guidelines, section V, Proposal Modifications*. This document is on the STF website.)
3. Funding is not provided directly to departments for purchases. All purchasing is done via the Office of the VPIT/CIO, and savings are retained in the Student Technology Fee fund.
4. For assistance in preparing your budget, please consult with relevant campus support departments. Four are listed here:
* Academic Technology & User Services (Director), 650-6538
* Budget and Financial Planning Office, 650-4762
* Space Planning and Administration Program Manager, 650-3935
* Purchasing, 650-3340, [Getting Started in the Western Marketplace](https://www.wwu.edu/bservices/purchasing/software.shtml)
1. What funding or contributions are available from your department or other sources? Enter dollar amount, or “N/A”. The Department of Sociology will provide matching funds up to a $6,000 monetary contribution. These funds will be used to purchase 13 new chairs for the new workstations and 5 new tables that support the new workstations in the center aisle and along the west and south walls in our attached layout, as well as any work needed to install or activate network jacks.
One option that may help offset costs is to transfer workstations from underutilized labs on campus, at the discretion of the STF committee, and add them to the renewal schedule for the Tedrow Lab instead of purchasing new machines. For example, there are 12 machines available in AH002, a lab which is not large enough to host full classes and which has demonstrated poor utilization over the past year.

Note: The STF Committee encourages matching funds/funding support. “Contribution” is defined as a monetary contribution. For example, a vendor discount is not considered a contribution.

1. *IF you have more than seven line-item expenses,* create a separate spreadsheet of items to purchase, with a subtotal. (You will attach the spreadsheet to this form later, before submitting.)
2. Complete the **Budget Estimate Table** below.

**IMPORTANT:** To complete the Budget Estimate Table (an Excel sheet) within this form, follow these substeps:

1. Double-click anywhere in the table:
	1. For Macs, the table will open in a new window.
	2. For PCs, the table will open in place.
2. Complete the blue-shaded areas only. The remainder of the form will autofill.
3. *IF you have more than seven line-item expenses*, key the “Items to Purchase” area of *this* Budget Estimate Table as follows:
	1. Item to Purchase: “Subtotal from attached spreadsheet”
	2. Quantity: “1”
	3. Item Cost: [the subtotal from the attached spreadsheet]
4. To exit the table area of this form, single-click anywhere outside of the table.



Note that the above costs for line items 2-4 will come from Department matching funds; we will not be using STF funds for furniture purchases.

1. Could this project be divided into discrete elements that could be funded separately? Enter “No” or “Yes”. Yes

IF “Yes,” summarize and prioritize project elements with a cost estimate for each. IF “No,” enter “N/A”.

Yes. The project elements could be divided into the following priorities:

1. 13 workstations ($15921.75 + applicable taxes and allowances for price increases ($1920.80) (STF funded). Total cost: $17,585.64.

2. 13 chairs for the workstations (Department funded). Cost: $3640.00.

3. New workstation tables (Department funded). Cost: $1484.83. If necessary, the Department could utilize existing tables in the Lab and department instead of purchasing new tables.

4. Network jack additions/activations (Department funded). Cost: $500.00.

Note: A “no” response to question 3 creates an “all or nothing” proposal. That is, if the STF Committee decides not to fund your entire proposal, it will not consider any elements for partial funding. If elements could be funded separately, the applicant is responsible for prioritizing them before submitting the proposal.

1. Are course or lab fees charged for any of the courses that will use this equipment? Enter “No” or “Yes”. Yes
Note: The total funding requested from the Student Technology Fee must consider the amount collected from course fees for equipment replacement and/or equipment acquisition.

IF “Yes,” describe the course fees. IF “No,” enter “N/A”.

Course fees of $10.00 per student will be charged for students enrolled in SOC 320 beginning AY 2024-25. The department may also vote to collect course fees from any classes taught in the Lab upon funding approval of this initiative.

### **VI. Project Schedule**

Describe your overall implementation schedule. Note that project awards are announced during spring quarter (usually May), and that projects are to be substantially completed by the end of the calendar year.
IF any site modifications are determined to be involved (see section IV, Space and Site Information), your project schedule will be aligned with the schedule provided by Capital Planning and Development.

June 2024: Order new workstations, new chairs, and new workstation tables.

July 2024: Identify need for new network jacks and network jack activation. Submit order for jack installation and activation.

August 2024: Installation of new workstations, tables, and chairs.

### **VII. Constraints**

List or describe any external or internal factors/constraints that could affect your project schedule, project objectives, or the project budget (e.g., if external approval is required for curricular changes, or if funding must be received by a certain date.)

N/A. Curricular approval for certificate program and new courses is completed and Department matching funds are earmarked for this project.

### **VIII. Submitting the Proposal / Routing Instructions**

1. Access the e-form [Student Tech Fee Proposals: Routing Form](https://esign.wwu.edu/forms/CIO/_student_tech_fee_proposals_routing_1.aspx) and complete the form as instructed.
2. Attach this completed proposal form to the completed e-form.
3. Attach any supporting materials for your proposal to the e-form.
4. Route the e-form as instructed.