2010 Student Technology Fee (STF) Proposal Form

Title of Project: ETEC 222 Welding Lab Equipment Purchase

Department/Organization: ETEC / College of Science & Technology

Name(s) of Project Applicant(s)

Name Steven Fleishman  MS 9086  Phone 360-650-2914
Name MS
Name MS
Name MS

Principal Contact person:

Name Steven Fleishman  Phone 360-650-2914

Amount Requested for Project: 6374.00
Contribution by Requesting Organization: $1000.00 - Fleishman Start-up Fund

Important notes:

- Before completing this form, please read the Proposal Form Instructions on the STF website: http://www.wwu.edu/stf/
- Beginning this year (2009-10), the Student Technology Fee Committee will no longer accept proposals for computer lab upgrades. Existing computer labs will now be upgraded on a rolling schedule, and the Student Technology Fee will continue to fund these upgrades. (The schedule for upgrading computer labs, when approved, will be posted on the STF website.)

I. Project Abstract

Give an overview of the existing environment, and summarize the items being requested. Briefly explain how the requested technology will:

- improve student access to technological resources, and/or
- enhance the quality of the student academic experiences through the use of technology, and/or
- increase the integration of technology into the curriculum.

II. Relationship to STF Objectives and Impact on Existing Academic Programs

Describe your proposed project in detail. Tell us how it will provide positive benefits to specific courses or instructional programs.

1. From a student perspective:

   a. How would this project provide additional student access to technological resources?
The purchase of new equipment will provide the students with access to the latest welding equipment technology, which they may encounter in their career fields.

b. How would this project broaden or enhance the quality of the student’s academic experience through the proposed technology?

By adding (1) TIG and (1) MIG welding station, it will help to offset current bottlenecks in the ETEC 222 Lab due to lack of available welding stations for all students to weld simultaneously. This will improve productivity in the lab.

c. How would this project integrate technology into coursework?

This project will enhance current welding / fabrication projects by providing the opportunity to work with latest technology equipment.

2. From a faculty perspective, explain how this project will enhance your ability to help students meet their educational goals.

Through the addition of (2) new stations, it will help to alleviate bottlenecks and reduce wait times for students seeking to use the TIG and MIG stations, which indicate highest demand for project use.

3. Will other departments be involved with this project? If so, please describe.

There may be some utilization of the equipment on a limited basis from other departments requiring to fabricate / weld materials.

4. Has any part of this project previously been funded by STF?

No ☒ Yes ☐ Please describe:

III. Utilization

1. Please list the anticipated number of times and duration per each use, per quarter, that the proposed technology will be used by students.

During the ETEC 222 course, students will use the equipment during all lab times, which include (3) sections X (2) hours per week X (10) weeks = (60) hours per quarter. Additionally, extra lab times are offered each week to assist students with project completion which can account for an additional (4) hours per week X (10) weeks = (40) additional hours, for a total of (100) hours per quarter of utilization. This does not include individual student access at various times, which is limited in frequency.

IV. Project Budget

This section details the estimated cost of the project. Include costs that will be covered—by your department or another source—for ongoing costs such as personnel or operating expenses.
To assist you in preparing your budget, please consult with relevant campus support departments (ATUS, Purchasing, Space Administration, etc.). For more information, see this page on our website: [http://www.wwu.edu/stf/instructions.shtml](http://www.wwu.edu/stf/instructions.shtml)

Please complete all of the following sections (attach Excel spreadsheet for any additional details).

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Item Cost</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Lincoln Precision TIG 225</td>
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<td>2300</td>
<td>2300</td>
</tr>
<tr>
<td>Lincoln Power MIG 350MP</td>
<td>1</td>
<td>4074</td>
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<table>
<thead>
<tr>
<th>Shipping (taxable)</th>
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<td>Tax (8.5%)</td>
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We recognize 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. The STF Committee may impose special conditions on a project; see the [STF Program Description](http://www.wwu.edu/stf/instructions.shtml).

1. What funding is available from your department or other sources?

   $1000 will be provided as matching funds from start-up allocation provided by CST for Steven Fleishman.

2. Could this project be divided into discrete elements that could be funded separately?

   **No** ☐  **Yes** ☑ 

   Please summarize and prioritize project segments with cost estimate for each segment.

   Equipment can be purchased individually. Priority is given to the MIG machine due to its higher utilization by the students - $4074.

3. Are lab fees charged for any of the courses that will use this equipment?

   **No** ☐  **Yes** ☑ 

   If yes, please note: The total funding requested from the STF must reflect the amount collected from course fees for equipment replacement and/or equipment acquisition. All proposals asking for course fees will be reviewed by the Academic Budget Office.

   There is currently a variable lab fee associated with the ETEC 222 course, which is based on consumable materials only, and includes welding rods, welding gas and welding safety equipment (gloves, jackets, goggles, etc.).
v. Impact on Existing Resources

The proposal should address your project’s potential impact on existing resources. Special attention should be given to impact on data transmission networks (e.g., sources accessed, networking equipment, etc.), and personnel (e.g., staffing, administrative support, faculty support, etc.).

Any proposal that includes the replacement of computers should specifically address the feasibility and cost effectiveness of upgrading the computers rather than replacing the computers.

1. Describe how existing equipment is used. Contrast this to projected use if your project was funded.

   **Existing equipment is utilized extensively during lab activities. The new equipment will supplement existing equipment and allow for increased quantity of students to work simultaneously. Projected use will increase overall productivity and improve project output.**

2. Is similar equipment or technology available elsewhere on campus—such as the Student Technology Center, Classroom Services, Video Services, Western Libraries, a college lab? If so, please describe why the existing equipment does not meet the needs outlined in this proposal.

   Several dedicated labs on campus have single pieces of welding equipment, however they do not offer access to ETEC 222 students, and are not in a location that allows supervision by ETEC 222 instructors. Examples of dedicated labs include ETEC-VRI and ETEC-MET.

3. If this project involves the replacement of equipment:
   a. Describe the “before and after” configuration changes. A spreadsheet reflecting these changes may be attached.

      **The new MIG machine will replace an existing Linde MIG machine in the ETEC 222 Lab that is outdated and not currently in running condition. The TIG machine will be located adjacent to an existing stick welding station.**

   b. Describe the costs and benefits of replacing vs. upgrading (if applicable).

      **The technology associated with the Linde MIG machine is outdated. Replacement parts are difficult to find. Space required for the Linde machine is approximately 400% of that required for the proposed Lincoln MIG machine, which will allow for improved space utilization in a currently space-limited facility.**

4. Will this equipment be available to students outside your department?

   No ☐ Yes ☑ If the proposed technology will be used by students outside of your department, please describe how they would gain access, how the availability of the equipment will be publicized, the hours/week when the equipment will be available, and any costs that would apply.

   **The equipment could potentially be utilized by students outside of the ETEC Department if they are able to register for the course, which is currently major restricted**
to MET and IT-CAD/CAM students. Non-ETEC students can be offered the opportunity to register for the course with instructor approval, based on available space. Due to the high degree of consumable materials associated with the course, lab fees would be required for all students participating in the course. Open lab formats could be considered, however, equipment use training/orientation, expanded time supervision and per-use fee structures would all have to be determined.

5. Does this project involve the check-out of equipment to students?

   No ☐   Yes ☑ If yes, please discuss whether or not the Student Technology Center could be assigned this task.

6. Does the department have adequate operating funds to provide ongoing maintenance and support?

   No ☐   Yes ☑ Please describe.

   Through a combination of instructor annual operating funds and departmental service funding, sufficient maintenance funding is available. Additionally, equipment warranties will provide for initial service requirements, if needed.

7. Does the department have adequate personnel funds to provide ongoing staff support for this project?

   No ☐   Yes ☑ Please describe.

   ETEC 222 is a requirement for ETEC MET and IT-CAD/CAM majors, and is anticipated to be a requirement for the revised Vehicle Engineering Technology program that is being developed as an ABET accredited version of the current IT-VD program.

VI. Space and Site Information

This section addresses any space alteration or site preparation necessary for the proposed project. Site alterations include painting, holes in walls, security systems, carpeting, construction, lighting changes, or conversion of a lab or office.

Special Note: If this project requires any site preparation, or if this project uses any space not currently under your department’s control, you must submit a draft proposal to Space Administration by November 25, 2009. Space Administration and Facilities Management will conduct a site survey and respond back to you concerning project feasibility, cost, and schedule. This information must be included in the final project proposal.

Proposals for projects that involve any site preparation will be considered only after the required site surveys by Space Administration and Facilities Management have been completed.

1. Location for installation of equipment or technology.

   ES 07 Laboratory facility currently used for the ETEC 222 Lab.

2. Is site modification required?
No ☑ Yes ☐ If yes, please describe (electrical, air, painting, lighting, security, network access, etc.).

3. Will this project use space not currently assigned to your department or area?

No ☑ Yes ☐ Please describe.

VII. Project Schedule

This section describes your overall implementation schedule. Project awards will be announced by the end of spring quarter. It is anticipated that projects would be substantially completed by the end of the calendar year. If there is any site preparation involved, please align your project schedule with the schedule provided by Space Administration and Facilities Management.

Implementation of the new equipment can occur quickly. Location of the MIG machine requires removal of the current Linde machine, which can be accomplished in less than (3) hours. Location of the TIG machine is immediate, as it will be situated adjacent to an existing stick welding station. ETEC 222 is currently conducted during Spring quarter. Ideally, if the new welding equipment is made available for the end of Spring 2010 Quarter, it will improve productivity for the course when it is most needed. If it is not available until after Spring 2010 quarter, then the equipment will be available for the start of the Spring 2011 course offering.

VIII. Constraints

This section should list any external or internal factors 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).

1. Please describe any constraints to this project.

No constraints are perceived to be associated with this project.

IX. External Funding

This section must be completed for any projects over $100,000. For project budgets of this scale, the applicant should investigate opportunities for obtaining external funding for all or part of the proposed project.

1. Describe the external organization(s) able to provide funding in support of this project.

   NA - Total project estimated at $6400.00

2. Describe the funding cycle for these requests (submission dates, projected award dates).

   Submission in Winter 2010 Quarter. Ideal award date is start of Spring 2010 Quarter.
3. Indicate the amount of external funding that would be requested.

    $1000 from Fleishman Start-up Fund.

4. In cases where joint funding is requested, what will happen if the STF award is made and the external grant is not awarded?

    Should not be a concern. If this happens, the priority MIG machine will only be acquired.

5. Has a grant proposal already been submitted for all or part of the proposed STF project?

    No