STUDENT TECHNOLOGY FEE PROGRAM
2015 TECH INITIATIVES SUMMARY SHEET

Student Applicants:
Complete “Project Title,” “Applicants” information, and “Submission Date” only (top section).

Project Title: Training Students in the use of Mobile Technology for Communication Enhancement in Communication Disorders

Department/Organization: CSD

Applicants (first applicant is considered primary contact):
Name: Eva Baharav Mail Stop: 9171 Email: eva.baharav@wwu.edu Phone: 3157
Name: Kelli Evans Mail Stop: 9171 Email: kelli.evans@wwu.edu Phone: 6299
Name: ___________________ Mail Stop: ___ Email: _______________ Phone: __________

STF Grant Request (from page 1 of 2015 proposal form: line 6) $3844.74

Authorization for contribution resources (if applicable):

Submission Date: 3/25/15

__________________________________________

SUBMITTAL APPROVALS

AS President Required for all proposals submitted by Associated Students (AS). Signifies that all student proposals have been prioritized by AS.

______________________

Department Chair Required for all proposals from a specific department. Signifies that the department can support the project as submitted.

______________________

College Dean or Unit Head Signifies that the College or organizational unit can support the program as described.

**Project’s Strategic Priority by College: 3**
For proposals originating from a college, the dean must review, sign, and strategically prioritize that batch of proposals.

Space Administration Required for all proposals that require additional facilities or changes to existing facilities. Signifies that all space-related issues have been addressed.

Vice Provost for Information Technology/CIO Required for all proposals related to all-university services and all proposals not related to a specific discipline. Signifies that the technology support organizations and technical infrastructure can support the submitted project.
**Project Title:** Training Students in the use of Mobile Technology for Communication Enhancement in Communication Disorders

- **Department/Organization:** CSD
- **Principal Contact**
  - Name: Eva Baharav, MS 9171, Email: eva.baharav@wwu.edu
  - Phone: 3157
- **Others**
  - Name: Kelli Evans, MS 9171, Email: kelli.evans@wwu.edu
  - Phone: 6299

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<th>Name</th>
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**Amount Requested for Project**

- **Proposed Budget:**
  1. Equipment total: $3844.74
  2. Plus site preparation (*not* STF funded): + $
  3. Total Project Cost (spreadsheet total from part IV of this form, Total Project Budget): = $
  4. Less organization’s contribution: − $
  5. Less site preparation: − $
  6. **STF Grant Request**: = $3844.74

**IMPORTANT NOTE**

1. THE STF Committee will accept only **complete** proposals by the announced deadline. Every section (I–IX) and all items of this proposal format must be addressed.

**I. Executive Summary (800 words max)**

Provide a summary of the project and the benefits to be derived. Explain what the students would gain from the project, and how the acquisition would meet the Student Technology Fee mission.

**STF Mission:**

*The Student Technology Fee provides Western students with adequate and innovative technology experiences by:*

- Broadening/enhancing the **quality** of the academic experience
- Providing additional student **access** to technology
- Increasing integration of technology into the curriculum
The present STF funding proposal describes a technology initiative for the purchase of four iPads for the purpose of enhanced training of students in the department of Communication Sciences and Disorders (CSD) in the application of mobile technologies to serve individuals with communication disorders.

In preparation for a career in speech-language pathology or audiology, undergraduate and graduate students need to keep abreast with the widespread use of mobile technologies for alternative augmentative communication (AAC) to enhance communication for individual with complex communication needs (CCN). The Rehabilitation Engineering Research Center on Communication Enhancement (AAC-RERC) has published a white paper (2012) indicating how the proliferation of mobile devices has changed the landscape for individuals with complex communication needs allowing them inclusion in all spheres of social life. This is something that until recently was not possible with the more cumbersome PC-based technology. This white paper emphasizes the urgent need to train students and professionals in the field of communication disorders (speech-language pathologists and audiologists) in the use of mobile technologies, including training in assessment procedures of the communication needs of individuals with CCN as well as training in the varied applications of mobile device use. To respond to this need, the department of CSD is incorporating this new use of technology into its curricula.

II. Relationship to STF Objectives / Impact on Current Academic Programs

The STF Committee will use as its primary assessment criteria the three objectives—quality, access, and integration—defined in the STF mission (above). Given this criteria, describe your proposed project in detail.

1. Tell us—focusing on what the students will gain from the project—how the project would provide positive benefits to specific courses or instructional programs. Specifically, answer at least one of a, b, and c below:

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

      Each academic year, the department of CSD serves about 155 junior, senior, and post baccalaureate level students in the major, and about 45 graduate students, preparing them for a career in speech-language pathology and audiology. Using the requested iPads, students will be able to engage in group projects requiring some aspects of AAC development, or video capture, or speech/voice analysis, and they will be able to explore available apps for rehabilitation. With this project, students will be trained as communication partners for individuals who use the iPads, and they will serve as clinical assistants to gain experience in the creative and appropriate use of iPads in a variety of clinical applications.

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

      Providing access to this technology within the curriculum will give our students the hands-on training needed as they go into the field of speech-language pathology and audiology. This will help them keep abreast with the latest technological advances offered to children at school, individuals in rehabilitation facilities, in hospitals, and in the world of employment. Using the requested iPads, in addition to three older devices that had been donated to our department, will facilitate the integration of these devices into curricular activities - something that is currently performed on a very limited basis by means of demonstrations alone. Giving our students opportunities to engage hands-on with the application of these devices in the field of communication disorders will broaden the academic experience and enhance the
quality of learning for our students as they study methods and techniques of using mobile technology to service individuals with communication disorders.

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

Technology is an integral piece of the training program in Communication Sciences and Disorders. Students in this discipline are preparing to become speech-language pathologists (SLPs), and the certification body (American Speech-Language-Hearing Association) requires students demonstrate knowledge and skills in the area of augmentative and alternative communication (AAC). AAC refers to ways other than speech that are used to send a message from one person to another. For example, many people are familiar with Stephen Hawking and the AAC device he uses to support his communication. The development of iPads has opened a new avenue for AAC users, and consequently SLPs are expected to use and understand a large number of specialized iPad applications developed for people with communication disorders. The course "CSD 588: Seminar in AAC" directly targets this topic and includes the use of iPads for AAC users. The iPads requested in this proposal would be directly integrated into this CSD course. The course is taught in a team-based learning format, requiring the students to move through the quarter in groups. Each group is required to complete sets of tutorials, and iPad apps are an important piece of this assignment. Students are also required to choose an app and develop an informational handout for distribution to the class. The assignment establishes the groundwork for the students to use the iPad apps with actual clients in our clinic as part of their clinical training. Another course, "CSD 592: Seminar in Autism", also integrates the use of iPads when students learn to facilitate communication among individuals with autism. iPads will also be used for students in research investigating their utility in comparison with other communication modalities. Using the iPads when undergraduate students prepare practice assignments of implementing the use of apps for enhanced communication, both as communication partners and as future clinicians, will generate an enhanced learning experience for our students. Finally, when our students learn the skills needed to serve as school-based speech-language pathologists (SLPs), they will be able to learn and use iPad apps related to the development of school-based, curriculum-driven services for children with communication disorders likely to be on their case load.

2. Would other departments be involved with this project?

   No ☒ Yes ☐ If yes, describe.

3. Has any part of this project previously been funded by the Student Technology Fee?

   No ☒ Yes ☐ If yes, describe.

4. Is the proposed project a pilot project?

   No ☒ Yes ☐

III. 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. The committee is looking for total student hours and total number of unique students who would use the technology in that time period. Explain how you arrived at this utilization.

Below are the different quarterly courses throughout a given academic year of device utilization:

**Fall quarter (CSD 588 course):**
- Student hours: minimum of 5 hours per student
- Unique students: 20-22 enrolled per academic year

**Clinical courses (Fall, Winter, Spring, Summer quarters):**
- Student hours: 80 (minimum of 20 hours per student per quarter)
- Unique students: 7 to 9 per quarter; our clinic services a variety of people with communication disorders. It is estimated that between 7 to 9 clients per quarter will benefit from iPad apps as an intervention tool when students work with them.

**Winter quarter (CSD 361 course):**
- Student hours: minimum of 2 hours per student
- Unique students: 80 enrolled per academic year

**Winter quarter (CSD 553 course):**
- Student hours: minimum of 4 hours per student
- Unique students: 20-22 enrolled per academic year

**Spring quarter (CSD 451 course):**
- Student hours: minimum of 2 hours per student
- Unique students: 80 enrolled per academic year

**Spring quarter (CSD 555 course):**
- Student hours: minimum of 4 hours per student
- Unique students: 20-22 enrolled per academic year

**TOTALS:**
In all courses combined in one academic year (including summer quarter):
- Student hours: 99
- Unique students: 200 (total students in program in a given academic year)
- Total unique students by student hours per one academic year = 3,842

**IV. Total Project Budget**

This section details the estimated total cost of the project. Include costs that would be covered—by your department or another source—for ongoing costs such as personnel or operating expenses.

1. For assistance in preparing your budget, please consult with relevant campus support departments (ATUS, Purchasing, Space Administration, etc.).

2. For more information about these contacts and helpful tools/links: from the STF website home page (http://www.wwu.edu/stf), choose “STF Tech Initiatives” on sidebar, then section "II. Tech Initiatives Forms and Instructions."

Attach an Excel spreadsheet if you have additional details.
<table>
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<th>Item</th>
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<th>Item Cost</th>
<th>Total</th>
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<tr>
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<tr>
<td>Lightning to USB Cable (1 m)</td>
<td>8</td>
<td>19.00</td>
<td>152.00</td>
</tr>
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| Subtotal                                      |          |           | 3434.00  |
| Allowance for price increases (3% of subtotal) |          |           | 103.02   |
| Shipping (taxable)                            |          |           | 0.00     |
| Tax (8.7%)                                    |          |           | 307.72   |
| **Total**                                     |          |           | **3844.74** |

*This budget total (or your attached spreadsheet total) should match the projected budget figure on page 1 of this proposal. (See box on page 1, line 3.)*

**Important Notes from the STF Committee:**

- 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.

- We recommend that you include a 3 percent cushion to allow for price increases.

- We may impose special conditions on a proposal before approval. See STF Proposal Guidelines.

- **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 STF fund.**

3. **What funding or contributions are available from your department or other sources?**

   **Note:** "Contribution" is defined as a monetary contribution. A vendor discount, for example, is not considered a contribution.

   N/A

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

   **Note:** A “no” response to this question creates an "all or nothing" proposal. That is, if the STF Committee decides against funding 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.

   No ☐ Yes ☒ If yes, summarize and prioritize project elements with cost estimate for each.

   We are asking for four iPads. A lesser number of devices would be better than none. At the same time, fewer devices will reduce the benefits of enhanced student experience.

5. **Are course or lab fees charged for any of the courses that will use this equipment?**
V. 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 project were funded.

   **Current iPad use is handled with the assistance of TA's and our bio-medical and IT technical support staff person.**

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?

   **No ☒ Yes ☐** If yes, describe why the existing equipment does not meet the needs outlined in this proposal.

   **Our use of the iPads may contain patient privacy information which precludes the use of these devices on a loan basis.**

3. If this project involves the replacement of equipment, including computers:

   a. Describe the “before and after” configuration changes. (A spreadsheet reflecting these changes may be attached.) Or, write “N/A.”

      **N/A**

   b. Describe the costs and benefits of replacing vs. upgrading. Or, write “N/A.”

      **N/A**

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

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

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

   **No ☐ Yes ☒** If yes, discuss whether or not the Student Technology Center/ATUS Loan Pool could be assigned this task.

   **Because some of the uses of the requested devices may contain patient/client information, we cannot use loan support outside our department due to the necessity of keeping client confidentiality under the HIPAA mandate**

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

   **No ☐ Yes ☒** If yes, describe.
Tim Kraft, the department's biomedical and IT staff person is well versed in helping maintain and problem-solve all issues related to the use of the iPads and the special apps used in our program. In addition, TA's help in the ongoing support involved in the distribution, check-out, and check-in procedures of the devices.

7. Does the department have adequate personnel funds to provide ongoing staff support for the project?
   No ☐ Yes ☒ If yes, describe.
   See under 6 above

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 would require any site preparation, or if this project would use any space not currently under your department’s control:

   a. You must submit a draft proposal to Space Administration by March 13, 2015.

   b. Space Administration and Facilities Management will then conduct a site survey and respond to you by March 20, 2015 about project feasibility, cost, and schedule.

   c. You must include the site survey response with your final proposal.

1. Location for installation of equipment or technology:
   N/A

2. Would site modification be required?
   No ☒ Yes ☐ If yes, describe the modifications (e.g., electrical, air, painting, lighting, security, network access, etc.).

3. Would this project use space not currently assigned to your department or area?
   No ☐ Yes ☒ If yes, describe.

VII. Project Schedule

Describe your overall implementation schedule. (Remember that project awards are announced during spring quarter, and that projects are to be substantially completed by the end of the calendar year.) If any site preparation is involved (see section VI above), align your project schedule with the schedule provided by Space Administration and Facilities Management.

Using the additional iPads requested under this proposal will begin immediately as described under section III above. At both undergraduate and graduate levels, group projects can be implemented to teach students how to use the iPad as communication devices for people affected by communication disorders.

VIII. Constraints

7
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).

None

IX. Submitting the Proposal

1. Make sure your proposal does not exceed 12 pages (not including Tech Initiatives Summary Sheet).

2. Complete a 2015 Tech Initiatives Summary Sheet for the front of the proposal.

3. Submit the proposal and summary sheet electronically for prioritizing (PDF preferred, or Word document):
   
   a. Faculty and staff: Submit by internal due date, which must be before proposal due date of April 2.
   
   b. Students: Submit by March 31 to AS VP for Academic Affairs at ASVPforAcademicAffairs@wwu.edu.

4. Submit prioritized proposals:
   
   a. Organization reps and AS VP for Academic Affairs: Submit to Student Technology Fee (STF) Committee by 12:00 noon on April 2.
   
   b. For each proposal, email one electronic version (PDF preferred, or Word document) of both the proposal and the summary sheet to diane.bateman@wwu.edu (the STF Committee secretary).

Note: Paper copies of proposals are no longer required; please do not send.