NUTS AND BOLTS of submitting a EURECA proposal
Agenda

- Introductions
- Overview
- Where things are
- Proposal & guidelines
- Student & Faculty Proposers
- Review process
- Q&A
Overview
Fostering Student-Faculty Partnerships
Proposals Types

• Initiated by
  – Undergraduates
  – Faculty
Where documents are

- EURECA website
Proposal Structure

• Fillable
• 1st page
  – General information
    • For Faculty Mentor Proposals Only
    • For Undergraduate Proposals Only
  – What’s New
    • Funding period
      – One semester (Fall only)
      – Academic year
I. **Summary**: Briefly discuss the *purpose* and *aims* of the project. Please use narrative suitable for a reader outside your area of expertise. (Please use the space provided below – 250 words.)

Recommendation: **write last**
I. Summary

• Purpose
  – gap in the knowledge
  – resolve a conflict in the literature
  – offer a new perspective

• Aims (general)
  – Objectives (specific)

• A sentence or two on methodology/approach

• Expected outcomes

Recommendation: write last
II. Introduction:

• Describe and properly reference the background and context of the project.
  • What others have done
  • Comes from reading the existent published literature

• State the question(s) to be addressed in the project objectives.

• 500 words
II. Introduction:

– Background

• What others have done and how it relates to your question
III. Preliminary results/findings/progress:

- If proposed project is a continuing EURECA project
  - accomplishments from the previous funding period.
- 300 words
Project Proposal

IV. Methods/Approaches

– Describes briefly the project’s experimental design or creative approach

– 400 words
Project Proposal

IV. Methods/Approaches
   – How you are going to answer the question
   – Tools
IV. Methods/Approaches

This sample is 339 words.

A few approaches are going to be applied in tackling this problem. The main approach we are taking is using programmable logic controllers (PLC). There will also be concepts derived from IoT (Internet of things). Programmable logic controllers are computer systems that monitor the states of different physical conditions and make calculate decisions based on the input conditions. In simple terms, Smart sensors were placed in spots to monitor vehicle presence. The sensors were built using: microcontrollers for computation, ultrasonic, & PIR sensors for detection and a GSM shield for sending information. All of these are computed & sent to a cloud server as input, which in turn out puts it to the application end for users. The concept of Internet of things what will be derived is connecting the sensors sending the data (available or occupied) over a server to applications for users to see.

The hardware and software components of this project will be created collectively and then integrated to give the end result. A bulk of the hardware will be created and tested using designing programs like solid works for the mechanical designs and circuit works for electrical aspects. The software, which is the cellphone and web application, will be developed for both Android and IOS operating systems. This will be done on one interface called phone gap. Phone gap uses the same code to create identical applications for both systems.

The hardware portion, mostly electrical, will be conducted under the project mentor Dr. Guo’s supervision. He has broad knowledge in Programmable logic controls and IoT applications. There will also be backing for the software end from the school’s IT department, the Webmaster Mr. Matt Shirey, and a Computer Science Professor, Dr. Terry Griffin. So far they have been very resourceful in coming up with ways to go about solving the few problems we have run into.

At the end of all this, a working prototype will be created to light a definite path for other phases of the project to follow including campus wide implementation.
IV. Methods/Approaches

IRB and MSU Policies Protocol

MSU Texas has issued several new policies that affect research. These University Policies and Procedures (UPP) can be found at https://msutexas.edu/human-resources/policy/index.asp. These policies are important to understand as they can be related to research.

1. UPP 2-515 Protection of Animals in Research
2. UPP 2-510 Protection of Human Subjects in Research
3. UPP 3-470 Chemical Safety

Animals in Research

Research involving a live or dead animal—see definitions—must follow these protocols. Safety and care must be addressed in this section and in the Timeline.

Human Subject

Using human subjects to obtain data requires an IRB approval. Human subject data can be obtained through many avenues.

IRB website: https://msutexas.edu/irb/index.php
IV. Methods/Approaches

IRB and MSU Policies Protocol

**Chemical Safety:**
Use of hazardous chemicals/materials must be approved by the MSU Environmental Health Safety and Risk Management committee and the Chemical Safety Manager, and the MCoSME Dean. If your project is going to contain materials that fall under any of the definitions in this policy you must meet compliance requirements. You must also address the possibilities of being unable to complete your project should safety become a roadblock.

**Checklist addition. A Checklist will be added in the Method and Approaches section.**

Does your research/CA project involve research or use of:

- Animal subject matter  YES  NO  If Yes Please address here and in the Timeline how you are
- Human subjects  YES  NO– If Yes Please address here and in the Timeline when you will apply for IRB approval. Your IRB Application must be submitted
- Chemicals of hazardous or  YES  NO

The UGR Office asks that you include them in all IRB correspondence by updating us on your application process.

It is EXTREMELY WISE to submit IRB approval documents as EARLY as possible in your research process as the maximum time for approval could be 6 weeks. IRB reviews may take longer.

**IRB Application Number to be reported on the Mid-Term Progress Report**
Project Proposal

V. Expected Results/Outcomes

– Anticipated results or findings
– 300 words
– This sample only used 39 words. Could they have used more?
– Does this sample cover the question?

“The anticipated result is to reliably generate SBSL, giving us the ability to better understand the phenomena and tune various parameters to further our understanding. The apparatus might also be useful as equipment in the advanced physics laboratory class”.
VI. References or Literature Cited

– Give credit to where credit is due

– Maximum 10

VII. Time Commitment to the Project:

No class or teaching schedules any more! Reviewers may dock applications for not having an actual schedule, we will adjust those accordingly.
VII. Time Commitment to the Project:

– Description of the specific role of the student in the project.
– Estimated hours per week the student will be working on the proposed project.
– Occurrence of scheduled meetings dedicated to research discussion and work with Faculty/mentees
  • meetings should coincide with Timeline progress.
– 200 words
Project Proposal

VIII. Timeline:

– Concise project timeline
– 200 words
– Will work:
  • Table
  • Timeline graph
  • IRB Application by Mid-Term/4th week of semester

<table>
<thead>
<tr>
<th>September</th>
<th>October</th>
<th>November</th>
<th>December</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finish assembly of experimental apparatus</td>
<td>Tune and modify apparatus with goal of generating SBSL</td>
<td>Further tune apparatus and begin modifying parameters</td>
<td>Compile results/theoretical model in a paper</td>
</tr>
</tbody>
</table>
IX.  Budget

Estimated budgetary needs

• Up to $500 to support the objectives and outcomes of the proposed project
  – small equipment
  – services
  – software
  – shipping & handling estimates

  **Must submit a Project Request for items needed with links.**

• Up to $500 to defray **student travel**
  – First Come, First Serve basis
    • registration fees
    • abstract submission cost
    • estimated transportation/airfare
    • lodging and meals per intended conference

**Must submit an Request for Travel Authorization (RTA).**
**All of these forms are located on our webpage:**
[www.msutexas.edu/eureka](http://www.msutexas.edu/eureka)
<table>
<thead>
<tr>
<th>Materials and Supplies</th>
<th>$</th>
<th>Estimated Travel</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Registration</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lodging</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transportation</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Meals* (use Per Diem rate)</td>
<td></td>
</tr>
<tr>
<td>Materials and supplies total</td>
<td></td>
<td>Student travel total</td>
<td></td>
</tr>
<tr>
<td>Grand total</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Budget justification

• Explain for each item the:
  – Why
  – How
Student commitment(s)

[Insert signed commitments here]

---

Student Commitment to the Project

I, [Student Name], hereby certify that I have read the proposal entitled “Meeting the Needs of Students in the Professional Programs of Education and Respiratory Care” and will commit time to working on the project in a manner of [Advisor's Name]. My classes include specific times to work on the project included in the proposal. I understand and will meet

the following expectations:

- Enroll in no more than 15 credit hour courses including BIO521: 200: 4000
- Enroll and successfully complete Critical Inquiry: Interdisciplinary Thinking (CHS51: 280) or HPS51: 4000 (please refer to the class schedule for class times)
- Attend all planned EURECA workshops, presentations, and forums
- Attend monthly meetings as scheduled
- Work diligently with your faculty and/or graduate student mentor(s) to complete your research project in a timely fashion
- Present results of your project in the Undergraduate Research and Creative Activity Forum
- Work with your faculty and/or graduate student mentor in school at least one day a week to present results of your project at a professional society, if opportunities arise
- Engage in activities associated with the EURECA program
- Participate in the assessment of the EURECA program
- Write a report of the project results by the end of the semester. Include a paragraph or two describing reflections on your EURECA experience at the end of the report

By signing below, I further agree to pay all funds paid out on any initial while participating in the EURECA scholarship program in the event that I must need to comply to meet the requirements of the program including: scholarship payments, project supplies and research expenses, travel expenses, transportation, registration fees, and any knock and meals. I agree to comply with MSU policies of Student Conduct with all aspects of EURECA programs or conferences at which I am representing MSU and EURECA.

[Signature]

Date: 4-18
Review Process

• Faculty volunteers
# EURECA Project Review Rubric

**Title:**

**Proposer Name(s):**

<table>
<thead>
<tr>
<th>Category</th>
<th>Outstanding (4)</th>
<th>Good (3)</th>
<th>Fair (2)</th>
<th>Unacceptable (0)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose</strong></td>
<td>Clearly defined. Aims listed and clearly outlined.</td>
<td>Needs to be more clear and/or missing minor information. Aims listed and reasonable.</td>
<td>Unclear. Aims are reasonable.</td>
<td>Unclear. Aim(s) missing or unclear.</td>
<td></td>
</tr>
<tr>
<td><strong>Introduction</strong></td>
<td>Project is excellently framed. Background and context are clear. Questions &amp; objectives are clearly stated.</td>
<td>Project is well framed. Adequate background and context. Questions &amp; objectives are stated.</td>
<td>Project not framed well. Inadequate background and context. Some objectives are partly connected to the aim.</td>
<td>Poorly framed with no clear context. Objectives are missing or not connected to the aim.</td>
<td></td>
</tr>
<tr>
<td><strong>Methods/Approaches</strong></td>
<td>Clearly described. Appropriate and innovative.</td>
<td>Good description but lacks some detail. Appropriate and interesting.</td>
<td>Description unclear or incomplete. Appropriate &amp; acceptable.</td>
<td>Not described or inappropriate.</td>
<td></td>
</tr>
<tr>
<td><strong>Expected Results/Outcomes</strong></td>
<td>Clearly described. Clearly linked into the broader scholarly field.</td>
<td>Outlined, but lacks detail. Clearly linked into the broader scholarly field.</td>
<td>Not clearly described. A link is made to broader scholarly field.</td>
<td>Not described. Link to broader field is unclear or unstated.</td>
<td></td>
</tr>
<tr>
<td><strong>Student Involvement</strong></td>
<td>Student role is clearly described. Work is clearly student-oriented; students actively involved in the process (not merely observing or carrying out menial tasks)</td>
<td>Student role is mostly clearly. Students have a central role in the project, though creative/design input is limited.</td>
<td>Student role is unclear, raised more questions. Students mostly observers.</td>
<td>Student role not defined. Students as bystanders or role of mentor superficially presented.</td>
<td></td>
</tr>
<tr>
<td><strong>Faculty/Student time commitment</strong></td>
<td>Appropriate time commitment. Teaching and student course schedules indicate weekdays and times to work on the project.</td>
<td>Appropriate time commitment. Teaching and student course schedules indicate weekdays, but not the times to work on the project.</td>
<td>The weekly allotted time is insufficient to achieve the proposed objectives.</td>
<td>Teaching or class schedule is missing.</td>
<td></td>
</tr>
<tr>
<td><strong>Budget</strong></td>
<td>Budget appears reasonable and complete. It provides justifications for stated needs.</td>
<td>Budget appears reasonable and complete, but lacks justification for one or more stated needs.</td>
<td>Budget appears incomplete or unreasonable for the project.</td>
<td>Budget is missing.</td>
<td></td>
</tr>
</tbody>
</table>

Total Points /28
Please use the space provided to briefly comment on the strengths and weaknesses of the project or creative activity. Keep in mind that the direct beneficiary of the experience must be the student or students.

Strengths:

Weaknesses:

Reviewed by: ___________________________ Date: ________________
Submission Deadlines

• December 1\textsuperscript{st}, Spring 2020
  – New must check Spring Only
    • Cannot carry forward from Spring 2020- to Fall due to fiscal funding allocations. Reapply for Fall.
    • Continuations from F19 to S20, not previously noted as AY will need to document need for continuation.
    • Examples: a delay in IRB approval resulting in not enough time to get thorough or complete test subject response, not enough test subject response, complications with or equipment/test sample failure.

• June 1\textsuperscript{st}, Fall 2019
  – One semester projects –Fall 2020
  – Academic year 2020-21
Anyone? Anyone?

fiscal policy
money?