



Changing Campus Culture of Innovation and Entrepreneurial Thinking: Pathways to Innovation Grant Program

Sponsored by Pathways to Innovation and the Business and Economic Development Center, partners of the UPRM Entrepreneurship Network, in collaboration with the Entrepreneurship Workgroup of the UPR system

Request for Proposals

Letter of Intent Due Date: Friday, March 31, 2017 at noon.

Full Proposal Deadline: Monday, April 17, 2017 at noon.

Thematic Areas: Active Learning of Innovation and Entrepreneurial (I&E) Skills; Mindset, Creativity & Innovation; and Startup Culture

Eligibility: Faculty and students from two or more academic departments and fields of expertise from the University of Puerto Rico at Mayagüez. Proponents are encouraged to include collaborators from the private sector and other academic institutions.

INTRODUCTION

The Pathways to Innovation Team of the University of Puerto Rico at Mayagüez (UPRM) announces the “*Changing Campus Culture of Innovation and Entrepreneurial Thinking: Pathways to Innovation Grant Program*” aimed to develop interdisciplinary, sustainable, and scalable projects across campus that promote growth of the innovation and entrepreneurial (I&E) ecosystem at UPRM. The program seeks disruptive proposals to implement I&E topics in the University via curricular, co-curricular or extracurricular initiatives.

Goal:

This program will provide the funding and support to prepare faculty and students for the development of disruptive ideas to implement I&E topics in the University via curricular, co-curricular or extracurricular initiatives. The program is requesting innovative and interdisciplinary proposals to start projects in this exciting field.

Objectives:

- To fund three to four research projects for one year (June 2017 to May 2018), **\$2,500 per project.**
- To develop a culture of interdisciplinary collaboration in innovation and entrepreneurship.
- To incorporate undergraduate and graduate students in high-end, interdisciplinary

- disruptive and innovative projects that cultivates the entrepreneurial mindset.
- To stimulate the interaction among relevant academic departments at UPRM.
- To invest our funds in the most promising projects that expands the I&E ecosystem at UPRM.
- To promote economic growth via the formation of entrepreneurial teams and startups.
- To have all funded projects subsequently submit proposals to those agencies, institutions and corporations funding projects in I&E.
- To identify areas of collaboration with partners in the private sector.

Background:

In line with its Strategic Plan, the University of Puerto Rico at Mayagüez is promoting innovation and entrepreneurship as a means to foster the technological, economic and social well being of Puerto Rico. This program will provide the funding and support to prepare faculty and students for the development of disruptive ideas to implement I&E topics in the University via curricular, co-curricular or extracurricular initiatives. The program is requesting innovative and interdisciplinary proposals to start projects in this exciting field.

In general, the goal of the UPRM Pathways to Innovation program is to transform the educational experience of students to foster positive attitudes towards innovation and promote the development of an entrepreneurial mindset and 21st century skills. Our commitment to this involves adaptations to curriculum and course sequencing, rollout of co- and extracurricular offerings, modification of supporting infrastructure and development of operating policies. Our participation in the Pathways to Innovation program sponsored by [VentureWell](#) represents a synergistic effort focused on students from all disciplines, but our long-term goal is to be that catalyst for curricular transformation and institutional change.

Establishing into practice training in [Strategic Doing](#), the UPRM Pathways to Innovation team has achieved many successes in a short period of time. These include: (1) inspiring student organizations, such as [Idea Platform](#), [Enactus](#), and the Association for Computing Machinery (ACM), to incorporate and promote innovation and entrepreneurship in their respective agendas; (2) developing Starting Point, the first ideation and makerspace at UPRM; (3) improving visibility of the ecosystem by creating a brand and social media presence (UPRM Entrepreneurship Network) and a landscape/map summarizing all the principal components and initiatives (uprm.edu/eship); (4) opening of UPRM Startup Lab, the first incubation program of UPRM student startups in partnership with the Puerto Rico Technoeconomic Corridor ([PRTEC](#)); and (5) participating in the University Innovation Fellows program. Our flagship project is the [New Venture Design Experience](#), a collaborative effort between Engineering and Business Administration schools, where multidisciplinary teams work together in addressing a design challenge throughout an academic year. As they collaborate on a design challenge, students engage in market research, identify opportunity areas (consumer problems) and propose ideas (solutions) to develop into working prototypes. A design challenge is a broad topic area that reflects current problems in society. Design challenge topics will guide the students toward development of products or services for the benefit of society. In the process, teams transform into E-teams with the exposure to entrepreneurship modules. (6) In its mission of continuing and interweaving relationships with the private sector & championing an entrepreneurial ecosystem at the region level in the western economic sector of Puerto Rico, UPRM has kickstarted and established a collaborative program called "[Fellowship of External Doers](#)" (FED); whereby members of the professional community interested, having experience in or founders of startups, equity financing, legal aspects of entrepreneurship and technology engage with UPRM

and the region to provide mentorship to students and guidance to faculty in matters of ecosystem development, innovation opportunity analysis and venture building.

Thematic Areas:

The thematic areas of the Pathways to Innovation Grant Program are the following: **Active Learning of I&E Skills; Mindset, Creativity & Innovation;** and **Startup Culture**. These areas are characterized by the critical role for developing an ecosystem and landscape of interconnected efforts consistently moving forward and expanding the needs of advance innovation and entrepreneurship. These three areas also have a direct connection with the development of 21st century skills and new technologies and products that have a direct impact on our quality of life and economy.

Active Learning of I&E Skills: During the past decade there has seen a lot of interest among faculty in teaching methods grouped under the term of “Active Learning”, however there remains much misunderstanding and mistrust of the pedagogical impact of it. Therefore, the majority of faculty still teaches their classes in a traditional lecture mode, even when there is a large amount of research attesting to the benefits of active learning. This thematic area seeks to develop a set of active learning activities or modules that can be incorporated into the classroom to foster innovation and entrepreneurship. Proposals need to specify the assessment and sustainability strategy of the activity.

Mindset, Creativity & Innovation: Entrepreneurial mindset is a pivotal step towards venture success. This thematic area covers decision making styles, vision & behavior developing psychological traits (i.e. focus, mindfulness, self-awareness, self-cueing) and inter-personal skills (i.e. emotional & cultural intelligence, circling) identified as pillars of successful entrepreneurs. Creativity and innovation are skills that can be improved and mastered. This thematic area seeks to develop two kinds of activities: (1) improvement of creativity and innovation skills of UPRM students and/or faculty, and (2) acceleration of creative and innovative projects that show great potential for entrepreneurial success. For the first kind of activity, proposals need to specify the skills to be improve, the method of improvement and how is they are going to be assessed. For the second kind of activity, proposals need to demonstrate the existence of a good entrepreneurial initiative and how the funds requested are going to help further develop the entrepreneurial project.

Startup Culture: Every culture shares four fundamental pillars, a common: geography, language, history and goals. This thematic area, therefore, deals with developing a workplace environment and space that values creative problem solving and open communication. It furthermore focuses on designing organizational structures and processes conducive to innovation opportunity detection. It also encourages students to embrace entrepreneurship as a way of living, and promotes skills needed to cultivate a company culture that increases talent retention, employee engagement and fuels sustainable growth.

Certainly, these thematic areas are interrelated as they depict the complexity and diversity of an I&E ecosystem. It is strongly recommended that proposals give serious consideration to this fact.

PROPOSAL SUBMISSION PROCESS

Letter of Intent (LOI)

Interested faculty and students must submit a Letter of Intent which must include the following information: title of the project, thematic area, description of the project and the academic departments and personnel interested in submitting a proposal. **The letter of intent must be sent to eship@uprm.edu no later than *Friday, March 31, 2017 at noon*.**

Eligibility

Eligible applicants are faculty and students from two or more academic departments and fields of expertise from the University of Puerto Rico at Mayagüez. Proponents are encouraged to include collaborators from the private sector. Those collaborators must also present a letter stating the institutional level of commitment and interest in the project.

Submission

Final proposals must be signed by the chairpersons of the departments involved, include a letter from the collaborator from the private sector or another academic institution (if applicable) and must arrive electronically to **eship@uprm.edu**, attention: Pathways to Innovation Grant Program, **no later than *Monday, April 17, 2017 at noon***. Final selection of projects will be announced by May 1st, 2017, to start effective June 2017.

Interview

Interviews with team members submitting proposals will be scheduled in late April to explain and discuss the project, expand on the teaching I&E strategy, and discuss the interdisciplinary approach to the UPRM Pathways to Innovation Team. The interview with all the project leaders is a requirement.

Proposal Evaluation Criteria

All proposals will be evaluated on the basis of the following criteria:

1. Interview with the UPRM Pathways to Innovation Team
2. Topic
Pertinence of the I&E topic to the thematic areas selected for the Pathways to Innovation Grant Program
3. Content
 - Project or initiative merit
 - Achievable goals and objectives with the proposed budget and timeframe
 - Potential for development into a larger project or initiative and proposal for external funding
 - Value to the University and Puerto Rico I&E ecosystem
4. Team Composition
The interdisciplinary nature of the team in terms of fields of expertise and experience, considering:
 - **Participation of faculty, students, alumni or staff from two or more academic departments, or two or more colleges.**

- Expertise and track record of the team members; including self-motivation and attitude for agile work and doer mentality
- Incorporation of partners from the private sector and other academic institutions

Those proposals recommended by the Pathways to Innovation Team after the interview process will be sent for external peer review to an External Committee of Peers in the field of I&E selected by the team to ensure excellence and objectivity in the review process. To provide a fair and equitable evaluation of proposals, the reviewers will be instructed to rely *solely* on the content of the proposal. No additional materials will be allowed.

INSTRUCTIONS FOR PROPOSAL PREPARATION

Proposals must follow and match the instructions provided in this section, for form and content. Adherence to the guidelines is required and will be strictly enforced. Proposals which do not comply with guidelines will not be evaluated further.

Form:

1. Font: Type size no smaller than 12 pt in all sections, Times New Roman
2. Project Description: 4 pages maximum (excluding Literature Cited and Biographical Sketches)
3. Biographical sketches: 1 page maximum per team member
4. Literature Cited: 1 page maximum
5. Document margins: 2.5 cm or 1 inch margins (*top, bottom, both sides for project description, literature cited, budget justification*)
6. Paper size: 8½" x 11"
7. Electronic copy: 1 electronic copy in MS Word format or PDF (send by email to eship@uprm.edu)

Content:

Each section of the proposal may be paginated separately. The proposal must be assembled in the following sequence:

- 1) Cover Sheet for Proposal (proposal title, keywords, Team leader, Team members, and affiliation) and a Project Summary (250 word limit)
- 2) Project Description (4 page limit)
- 3) Literature Cited (1 page limit)
- 4) Biographical Sketch (1 page limit per team member)
- 5) Budget and Budget Justification

1. Cover Sheet and Project Summary

The summary should include a statement of objectives, methods to be employed, and the significance of the proposed activity to the advancement of I&E at UPRM. Do NOT include literature citations. Project summaries are limited to **250 words**. A list of five keywords or phrases enclosed in brackets must be included in the summary. For example: app development, hackathon, agrotechnology, business model canvas, value proposition.

2. Project Description

Project Description **may not exceed 4 pages**. Visual materials, including charts, graphs, photographs, and other pictorial presentations, are included in the 4 page limitation. The main

body of the proposal should be a clear statement of the work to be undertaken and should include the elements described below:

Introduction: Review past and continuing work significant to the proposed area of interest (include reference citations); discuss notable gaps in the UPRM I&E Landscape of Assets (<http://www.uprm.edu/eship/entrepreneurial-ecosystem/>), and significance of the project to I&E ecosystem at UPRM and the region.

Value Proposition: State what is to be implemented, measured, observed, assessed, modified, or developed and the anticipated results.

Methods and Approach: Describe the tools and techniques, including success characteristics and measurable outcomes. Describe the major tasks to be performed to accomplish the project objectives. It is of critical importance to clearly explain the interdisciplinary approach and work in the project, and how each discipline contributes to the effort.

Applications, Benefits, and Importance: Describe how the anticipated outcomes relate to Pathways to Innovation goal and objectives, as well as the expected benefits of the project, potential applications, and its potential value to the university. Explain how this initiative will increase the entrepreneurial mindset at UPRM and promotes creation of startups.

Project Management: Describe the organization of the interdisciplinary team, as well as the assignment of team members to key tasks. Each team may select a leader that represents them in administrative matters, as well as in the organization and implementation of the project. A timetable illustrating the expected activities and progress is required.

3. Literature Cited

Use of a specific format is not mandatory, but a list of literature cited is required. Citations must be complete (including all authors, title, and location in the literature).

4. Biographical Sketches

Biographical sketches are required for all team members and collaborators. Information should be limited to essential, most relevant and recent information on the following:

Name

Department / Institution and full contact information

Educational History

Employment History

Areas of interest (five keywords or phrases)

Current related projects

Professional Appointments (e.g., Editorial Boards, Advisory Committees, Positions in Scientific Organizations)

Publications or achievements most relevant to the proposed work or any other significant publications

5. Budget

Each proposal must contain a detailed budget for the year of support requested. **Funding is up to \$2,500 per project and can be allocated for materials, travel expenses, and salaries or stipends.** Funds are located at UPRM, therefore, only state potential purchases permitted by UPRM rules and policies. Entries on the budget should be to the nearest dollar (i.e., no cents!).

Matching funds are not required. However, teams are encouraged to obtain and include matching funds from their departments, colleges and from those companies serving as partners in the project. No indirect costs are required.

In addition to the budget, the proposal must also include a budget justification narrative.

PROJECT REQUIREMENTS

At the end of the project, the funded research teams are expected to provide the UPRM Pathways to Innovation Team with the following results and deliverables, as part of the obligations with the project and funding:

Results and Deliverables

- A. *All faculty involved in the project are expected to participate in “National Forum on Entrepreneurial Education” held at UPRM on June 21 and 22, 2017.*
- B. *All faculty will become active members of the Faculty Innovation Fellows. This effort seeks to enable collaborations between champions interested in ecosystem and community building in the region. The “fellows” give visibility to their efforts, mentor entrepreneurial teams, and attract partners and resources*
- C. *A final report summarizing the major findings and outcomes of the project*
- D. *Faculty is encouraged to use this experience and results to write publications in peer reviewed journals or conference proceedings*
- E. *Presentation at a organized event by the UPRM Entrepreneurship Network*

Dissemination

Teams are encouraged to disseminate information on the findings of the project and its products (if appropriate and advisable) through all possible means, including UPRM web page and the university’s press office, the UPRM E-ship Network web page, Diálogo, and local news outlets.

Publications / Products / Posters / Presentations

Any of the above products should acknowledge the UPRM E-ship Network support. Official logo is found in the following link:

<https://www.dropbox.com/s/bqfrnitv53yt1k1/logo%20Eship%20fall%202016.png?dl=0>

Contact person: For further information about this Pathways to Innovation Grants Initiative, please contact team leaders Dr. Ubaldo M. Córdova-Figueroa (ubaldom.cordova@upr.edu) and Dr. Moraima De Hoyos (moraima.dehoyos1@upr.edu).

Connect to the UPRM Entrepreneurship Network at <http://uprm.edu/eship> for more information of the I&E ecosystem at UPRM or join the conversation at our [Slack](#).