

Hemispheric innovation hub

This hub for innovation and new ventures aims to encourage entrepreneurship, enable collaboration, and spur product development. It is a vehicle for commercialization through the raising of venture capital, and will foster connectivity locally and hemisphere-wide.

Contributions by the College of Engineering towards a Hemispheric innovation hub:

1. Academic Entrepreneurial Ecosystem

Objective:

Foster an entrepreneurial ecosystem that holistically encompasses all components of the academic curriculum.

Initiatives:

I-Corps: CoE can play a major role towards developing a "site" for NSF Innovation Corps (I-Corps™) program at the University. The program involves a set of activities to prepare scientists and engineers to extend their focus beyond the laboratory and broadens the impact of NSF or NIH-funded, research projects.

Launch initiatives to create and support an innovative and inclusive engineering profession by reforming curricula, course delivery and assessment methods across the five departments.

Leverage support from NSF (for example: RED -- Revolutionizing Engineering Education) and NIH research training and career development programs.

Faculty learning community

Recommendations to CoE:

Identify a course or series of courses in each department that includes an entrepreneurship curriculum and is easily absorbed by CoE students.

CoE arranged field trips to local businesses whose activities focus on engineering entrepreneurship, in order to expose students to real-world innovation and to local networking opportunities.

Lectures on entrepreneurship

Engage I-Corps and I-Corps learning programs to educate faculty with innovative teaching strategies and technologies

Build a model borrowing from and/or in connection with the university wide Faculty Learning Community (FLC) that encourages and provides incentives for faculty to revise their course delivery with innovative teaching and learning content

2. Innovation Nest

Objective:

Create a nest where the community (students, staff and faculty) has access to an all-inclusive workshop with the necessary tools and resources to deliver designs and prototypes of manufactured works.

Initiatives:

Maker space: An open-access space containing all of the necessary equipment, resources, and personnel to rapidly transition from concept to physical prototype; where access to engineering expertise and equipment facilitates innovation and collaboration across the University.

Recommendations to CoE:

Build and staff a maker space.

Implement tinkering, "learning science/engineering while fooling around with real things"
Issue problem solving challenges to students in order to encourage collaboration and innovation.

3. Inspirational Environment (External Growth)

Objective:

Establish a framework where external entrepreneurial connectors can inspire and engage the community (faculty, staff and students) a 'Hemispheric Innovation Hub.'

Initiatives:

Creation of new Innovation Café where engineering students can collaborate, work, and build an entrepreneurial community. Connect with the Maker Space (Obj 2) to facilitate student projects and prototyping needs.

CoE Entrepreneurship Forum

Mentors

Participate on National Council of Entrepreneurship Tech Transfer forum

Recommendations to CoE:

Utilize Fedex analysis of hubs in Latin America to identify both industrial and academic partners.
Faculty Innovation Retreat...

Invite guest speakers to core department courses and incorporate their presentations into course grading.

4. Collaboration to Practice (Innovation driving engine)

Objective:

Create a platform where interdisciplinary collaboration and spur to support the innovation and entrepreneurial process.

Initiatives:

Entrepreneur in residence

Social Innovation Lab (Rockefeller Foundation)

Beacon Council

Center of Hemispheric Policy

Recommendations to CoE:

Hire legal and business advisors

Encourage student organizations to seek/further develop entrepreneurship initiatives and/or create a student organization dedicated to innovation and entrepreneurship

Connect with locally relevant organizations that link to the hemisphere to learn about existing programs initiatives to leverage on: eg Miami Empresarial, Greater Miami Chamber of Commerce, Enterprise Florida, local and international Chambers of Commerce, eMerge Americas, Knight Foundation, Cambridge Innovation Center, etc.

Connect with industries in South Florida, especially those with extended operations in Latin America and the Caribbean Basin. Utilize the new and existing industry partnerships as bridges for establishing new collaborations in the Americas.

Expand academic and industry networks via existing centers such as Center of Hemispheric Policy, Center for International Business Education & Research (CIBER), Center for Advanced Supply Chain Management (CASCAM) etc. Initiate and maintain periodic roundtables and discussions with industry partners, Beacon Council, and Enterprise Florida in order to identify niche areas for research and innovation as part of the CoE Entrepreneurship Forum.

5. Entrepreneurship Encouragement (Internal growth)

Objective:

Provide leadership to identify internal strategic actions that will encourage students, faculty and staff to pursue innovation.

Initiatives:

Support should be made available for filing provisional patents deemed meritorious by Department Chairs (\$125/patent). Engage UInnovation to support the needs of CoE.

Recommendations to CoE:

Review the rubric and metrics of faculty evaluation to recognize alternative forms of success, e.g. to include patents in lieu of traditional metrics (eg number of published papers)

Establish a new model for faculty evaluation: % of Research/Service/Teaching to include Innovation/Entrepreneurship.

Connect faculty entrepreneurs with students.

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