**Top four projects CSM should implement in order to expand I&E**

Each group member in the cohort create an individual project below:

1)

**Mission themed makerspaces/labs**

**Project Lead: Keenan Urmann**

**Description:**

Existing makerspaces cater to the general theme of supporting entrepreneurship and innovation on an entry level through a means of mechanical design. With utilizing 3D printers and basic prototyping materials most of the design process centers around mechanical engineering and leaves opportunity for other disciplines to pursue innovation. With the introduction of mission themed makerspaces we create an opportunity for like minded students to connect through common passions. Logistically these makerspaces would be decorated and supplied with relevant materials related to their mission theme. Themes related to career pursuits could include but are not limited to

-Thermodynamic and Fluid flow

-Medicine and the Medical Field

-Geological processing and Extraction

-Electricity and Energy

-Instrumentation and physical design

-Coding and mathematical analysis

Many of the makerspaces available only support a small number of students that are pursuing a broad subject of study. With the introduction of mission specific design spaces that are either created from scratch or repurposed to bring like minded people together under one common mission. These spaces would also likely serve as a hub for students enrolled in similar courses to study and connect with others in their major/interest group. These spaces would also likely serve as a further support to existing clubs and organizations in a means of helping them pursue entrepreneurship and expand on their own innovation through interdisciplinary collaboration.

**Key tactics/logistics:**

 With a very involved project such as this there comes great challenges that would aid in fostering communities of like minded students in pursuing their own innovation and provide a foundation for greater entrepreneurship on our campus. With the recent plans to expand our campus through the introduction of our largest residence hall to date as well as a parking garage/maker hub the physical space available is increasing. In order to make this project feasible many partnerships would likely have to be made with other clubs and organizations throughout campus. Some logical partnerships might include the pre-med society, human design studio, biomechanical department, and the assistive technology club to enhance/create a makerspace that is dedicated to design within the Medical field. Additionally it would be necessary to custom tailor each makerspace to fit the needs and desires of the community it would serve. For an energy based makerspace it might have an electrical circuits lab with sensors and equipment needed for analyzing circuits and energy systems as well as powerful computers to run software related to the field.

2)

**Entrepreneurship Class (CSM101)**

**Project Lead: Jake Ropson**

**Description:** Our school has a strong passion for engineering and innovation, but sometimes this gets lost in the busy school work in major specific classes. However, if there was a class that students had an option to go through as a new college student, then there is a good chance that the innovative atmosphere around campus would change for the better. I’m proposing a new class that students can enroll in that teaches them the fun and exciting things about changing the way the world works. This class would allow students to explore their own interests all while taking their introductory classes -- potentially sparking a new interest them that they hadn’t noticed before. Ideally, these classes would be taught by passionate students (UIF?) that could employ the following:

* Brainstorming an idea you would like to create
* Designing/troubleshooting that idea, and solving those problems
* Building a potential model with other students and actually having *fun* in the class -- make it not feel forced.
* If successful, getting funding from the school to actually create a real model

These students would *choose* to take this class, so you would be surrounded by others that share a similar passion. This would be a fantastic way to better improve the innovative atmosphere around our school.

**Key Tactics/Logistics:** Creating a class that would disrupt the freshman curriculum would be no easy task, and would certainly be difficult to pitch to the school. However, there is an obvious lack of excitement regarding the freshman curriculum, and if pitched well, I believe PCJ would be open to the idea. Furthermore, the people leading the class would need to be leaders, and responsible for a class. Students would be ideal, but teachers who have a passion for this would also be a great way to have more than one class available for sign up. While there are some road bumps, I think this idea would be one of the greatest ways to make an impact on the I&E atmosphere around our campus.

3)

**I&E Newsletter**

**Project Lead: Miguel**

**Description:** The problem we are trying to solve is the lack of clubs (specifically I&E), and I&E community around our campus . There is a big interest in I&E, however there is no support system to inform students about new ideas/organizations on campus. Connecting interested students would create a foundation for others to come together and design, create, and build.The solution is to create a newsletter that informs students of upcoming I&E, as well as other club events. Currently students remain in the dark about innovation around campus so this would allow them to have access and pursue some of the activities going on. The problem being addressed here is one that our cohort was extremely excited about. Addressing the lack of I&E communication around campus is something that we initially stated as the biggest obstacle in getting students interested in these types of activities. Students on our campus seem extremely interested in I&E, and actually exposing them to others who share a similar passion is a great way to spark other ideas of innovation. We look forward to further pursuing ways to make our prototype a reality.

**Key Tactics/Logistics:** A big problem with this approach is simply that people won’t take the time out of their day to actually read this newsletter, similar to how people throw away mail. To get around this, ideally information of all sorts could be included into the newsletter so that people would be drawn to it for other reasons beside I&E.

4)

**I&E In Class Conferences**

**Project Lead: Anastasia**

**Description:** As freshman, there is a lot on the plate for new students, with school work, and overall adjusting to the new rigorous schedule. The idea behind in class conferences is to get teachers, and other experienced professionals to go beyond the lecture of the class and actually talk about their own life experiences and ideas behind I&E. Especially as a freshman, getting teachers, who are often feared and seen as infallible, to discuss their own I&E experiences, including their failures, would be a great way to get other students to become involved in I&E. If each teacher in the general classes spent one day talking about their own creations (PHD,etc), failures, and triumphs, it would be a great way to get students motivated and involved outside of homework. While we have lectures going on outside of class, freshman are not pushed to go to them due to their busy schedule, but if we brought the inspiration to them, it would be a big motivating factor.

**Key Tactics/Logistics:** A pressing issue when implementing this project is the fact that freshman are taking hard classes compared to the ones that they had in high school, which takes an extensive amount of time. Therefore, pursuing with these in class conferences, the students would be able to interact with someone that has already gone through the issues that it might appear throughout their lives. Furthermore teacher would have to be willing to discuss their own I&E idea, which would involve having them being able to go out on a limb to encourage others.