

Revitalizing the oSTEM Student Organization

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Abstract

LGBTQIA+ students in the STEM field face unique struggles finding community and finding support due to their minority status. The environment at the FIU Engineering Centre (EC) is inhospitable to Lesbian, Gay, Bisexual, Transgender, Queer, Intersex, Asexual (LGBTQIA+) students, and we are building upon a prior JEDI project by J Garcia and Team (J Garcia et al, 2023).

Introduction

Our objective is to create a more welcoming environment for LGBTQIA+ students in the Florida International University Engineering Center (FIU EC). Queer individuals are a minority in the STEM field, and that can be extremely intimidating for members of the LGBTQIA+ community looking to break into the field; many are afraid of being othered, feel imposter syndrome due to the lack of representation in their classes, and the lack of a defined socially safe environment to unmask and be themselves. As stated in the literature mentioned, queer students are underrepresented in the STEM field and are more likely to experience marginalization, which makes creating a comfortable environment all the more important, so all students can feel welcome and safe being themselves. This project seeks to cement our place in the STEM field and create a space that serves as a haven for queer individuals studying a STEM major while providing them with professional resources to excel in their careers.

Research Framework

I based this project based on the foundations of youth participatory action research that we were taught in our initial JEDI meetings. I saw a gap in my community at the Engineering Centre, so I worked with likeminded individuals to improve upon it and give back to make it a more hospitable environment. The keywords for this project are teamwork and new connections, as it takes a village to make a positive change in your community, and I connected with a lot of new individuals to implement that change.

The main question this project aimed to answer was:

What does it take to make the Engineering Center feel safer for LGBTQIA+ students?

Methodology

I began the work for this project by creating an initial interest form for revitalizing the oSTEM student organization in October 2024 to determine if there is a desire amongst the student body in FIU to have a space for queer individuals in STEM to meet and discuss their experiences as well as career growth opportunities. We received 20 responses, which then led to me creating a group chat on WhatsApp for all of us to communicate and plan our first meeting together as a revived organization.



Fig. 1 – QR code for the oSTEM interest form.

At our first meeting in November 2024, I asked what the members would like the club to look like, what we can do to make sure the club stays alive after all of us graduate, and what kinds of events they would be the most interested in attending, and they have been just as involved in the rebuilding of this organization since then. I published an additional survey after our first meeting to start assigning officer roles for the organization.



Fig. 2 – QR code for the oSTEM leadership application survey.

I also partnered with other organizations in FIU such as the Pride Student Union, the Pride Center to spread the word about our club meetings, surveys, and sought out advice from the members of these organizations to be a better leader, as well as communicating with other STEM organizations and staff at the Engineering Center.

Toward the end of the internship, I published a feedback survey to our oSTEM members to evaluate our progress with the organization so far.

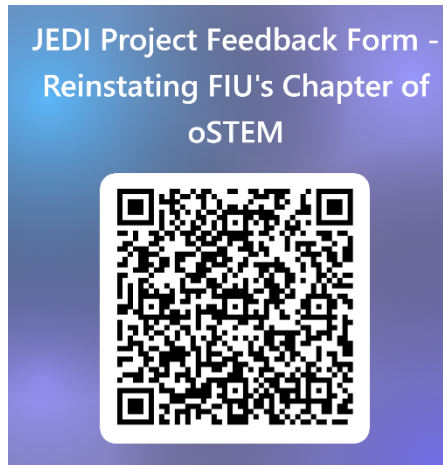


Fig. 3 – QR Code for the oSTEM feedback form.

I was able to meet deadlines on time and keep myself organized by following a Gantt chart.

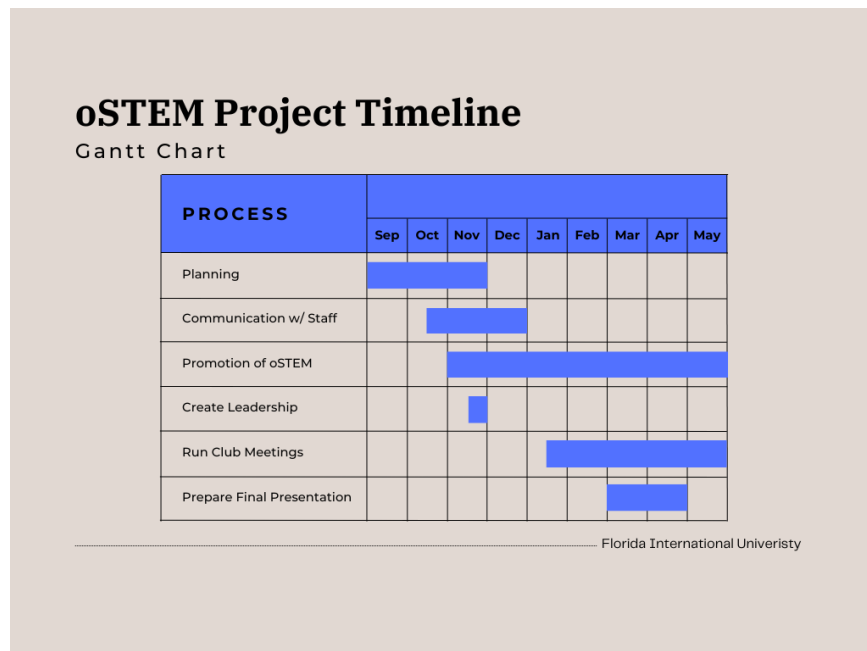


Fig. 4 – The Gantt chart I used to keep myself on track with deadlines.

Key Findings

After speaking to some of our club members, holding meetings, and receiving 2 survey responses, we found that FIU students in EC agree that the environment is inhospitable for LGBTQIA+ students and are interested in participating in a solution. The high attendance in our meetings showed that students are passionate about building a community, and our interest survey received responses detailing why this organization is so important to students to maintain, as well as suggestions on what we could do to improve the longevity of oSTEM. After the most recent American presidential election, which took place during the duration of this project, the

energy shifted in our meetings and students showed even more resolve in maintaining the oSTEM organization.

Implications and Actionable Recommendations

More promotion and support at the Engineering Centre of the oSTEM student organization, the Pride Center, and the Pride Student Union would make students feel more comfortable and accepted on campus.

Challenges, Limitations, and Future Directions

With an increasing amount of anti-diversity and anti-queer sentiments and actions in this country, it is becoming more and more challenging to be openly supportive of organizations like oSTEM and other programs relating to diversity, equity, and inclusion. I anticipate it will be more challenging to ask professors and staff at FIU to promote oSTEM in the near future.

Conclusion

Especially in the political climate we currently find ourselves in, community is more important than ever for all minority groups, and for all in general. Students want to be a part of the solution in building the safe community they desire in the Engineering Center and are responsive to opportunities to do so.

References

Garcia, J., Elaouinate, M., & Bond-Trittipo, B., & Secules, S. (2023, February), Comparing the Narratives of Two LGBTQ+ Undergraduate Engineering Students at a Hispanic Serving Institution, ASEE PEER, <https://peer.asee.org/comparing-the-narratives-of-two-lgbtq-undergraduate-engineering-students-at-a-hispanic-serving-institution>

Research Poster Presentation

Revitalizing “Out In STEM” (oSTEM)



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Fig. 5 – The research poster we presented at the 2025 URFIU Conference in April, featuring participant quotes, research findings, and more.