
**Examining the academic success of
underrepresented student groups:
*A collaboration between instructors and students***

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Director of Undergraduate Research,
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Success Center and Coordinator, Bridges Scholars
Program
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Meirilys Castaneda Ceballos, Psychology Major,
Lauren Haus, Psychology major*



MIAMI UNIVERSITY



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Overview

- » Bridges Scholars Program
- » First Year Research Experience
- » Research project
 - » FYRE Bridges
 - » Continued work
- » Student feedback
- » Breakout groups
- » Regroup

(1) Collaborations that are student centered

(2) Challenges that influence sustainability

(3) Nurturing agency in students



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Bridges Scholars Program

Overnight Fall event
*High School students
Overnight Program*

**APPLY TO MIAMI
UNIVERSITY**

Admitted students
*Invited to join a
community*

**ACCEPT
INVITATION**

Bridges Scholars
4 year program



CENTERING
DIVERSITY, EQUITY
+ INCLUSION IN
UNDERGRADUATE
RESEARCH +
CREATIVE ACTIVITY

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Benefits of being a Bridges Scholar

- » Involvement in the Bridges Scholars **student organization**
- » Bridges Scholars **Living Learning Community**
- » Developing as Scholars, leaders and professionals
- » Success **coaching**
- » Building a **professional network** of faculty, staff, and students
- » Preparation for **life after college**
- » **Connecting** with Bridges Program participants via volunteer opportunities such as hosting, assisting with the program, or outreach activities



Monica Y Adkins, Ed.D.
Senior Asst Dir, Student Success Center
Bridges Scholars co-ordinator

Each year more than 150-200 Bridges students enroll at Miami University



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First Year Research Experience

- » **3 year pilot**, funded by the Offices of the Provost and President
- » Outcome of a year-long **faculty/staff learning community**
- » **Sustained effort of NSF** Undergraduate Research and Mentoring award [2008-14]
 - » 2 semester sequence
 - » **Fall:** focus on skills
 - » **Spring:** conduct research project



Joyce Fernandes
*Director of Undergraduate Research,
Professor of Biology*



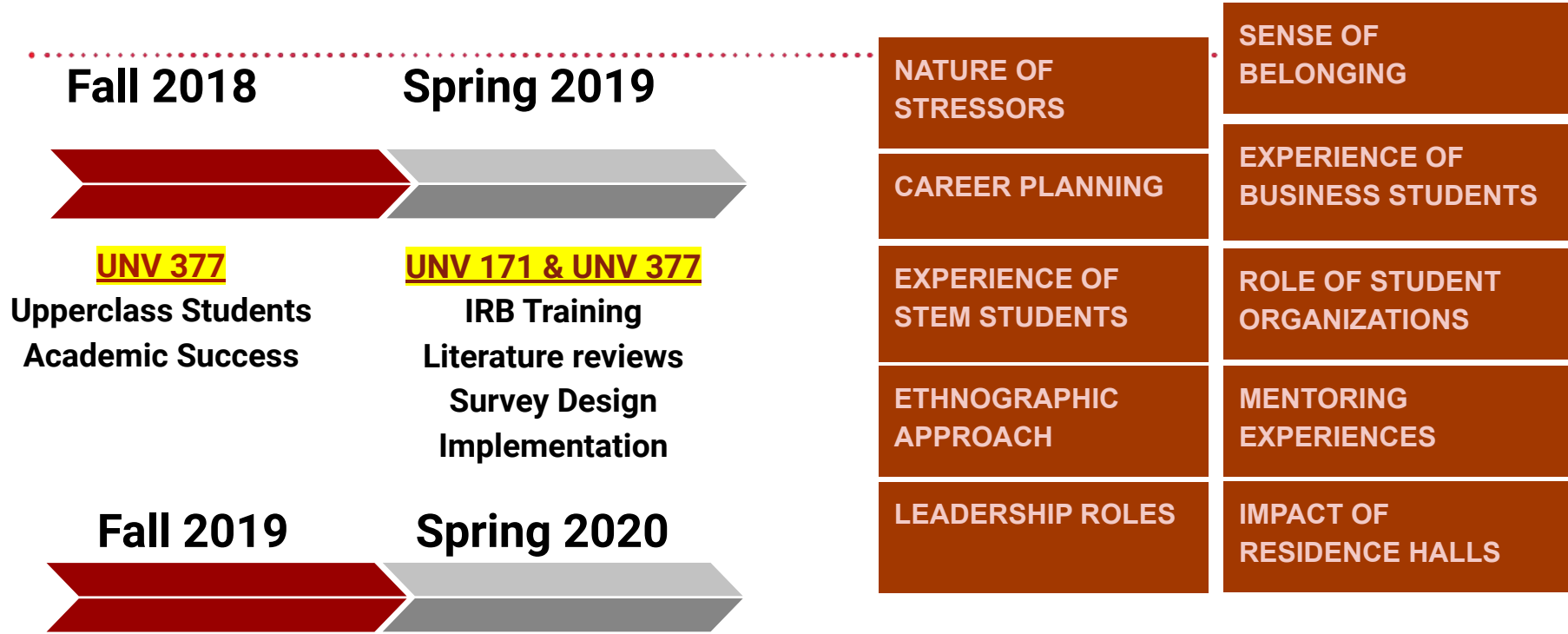
First Year Research Experience- Goals

- » Provide early contact with faculty, staff and successful upper-class students
- » Engage first-year students in research
- » Allow students to experience the practice of research
- » Enhance communication and presentation skills.
- » Foster the development of a community of student researchers/scholars
- » Increase the participation in subsequent research activities



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Academic Success of Bridges Scholars: A FYRE PROJECT



Organization of the FYRE project



INTRODUCTION

Purpose statements,
Research Questions
Hypotheses

Fall

LITERATURE REVIEW

Literature Grids
Graphical summaries

CANVAS SITE

METHODS:

Qualitative, Quantitative,
Mixed Methods, Data
Collection

Spring

DISCUSSION

Implications for practice

**WEEKLY INSTRUCTOR
MEETINGS**

RESULTS

Data Analysis
Data Visualization

FINAL PRODUCTS

Term paper,
Research presentation

OFFICE HOURS

Role of the Student Success Librarian

- » co-Instructor for FYRE course
- » Assisted with creating assignments
- » Met with students outside of class
- » Using literature to
 - » shape research questions
 - » write a literature review
 - » Analyze data- correlational analysis
 - » identify next steps
- » collaborator for the manuscript writing phase



Nathaniel Floyd
*Student success Librarian for
Foundational Learning*



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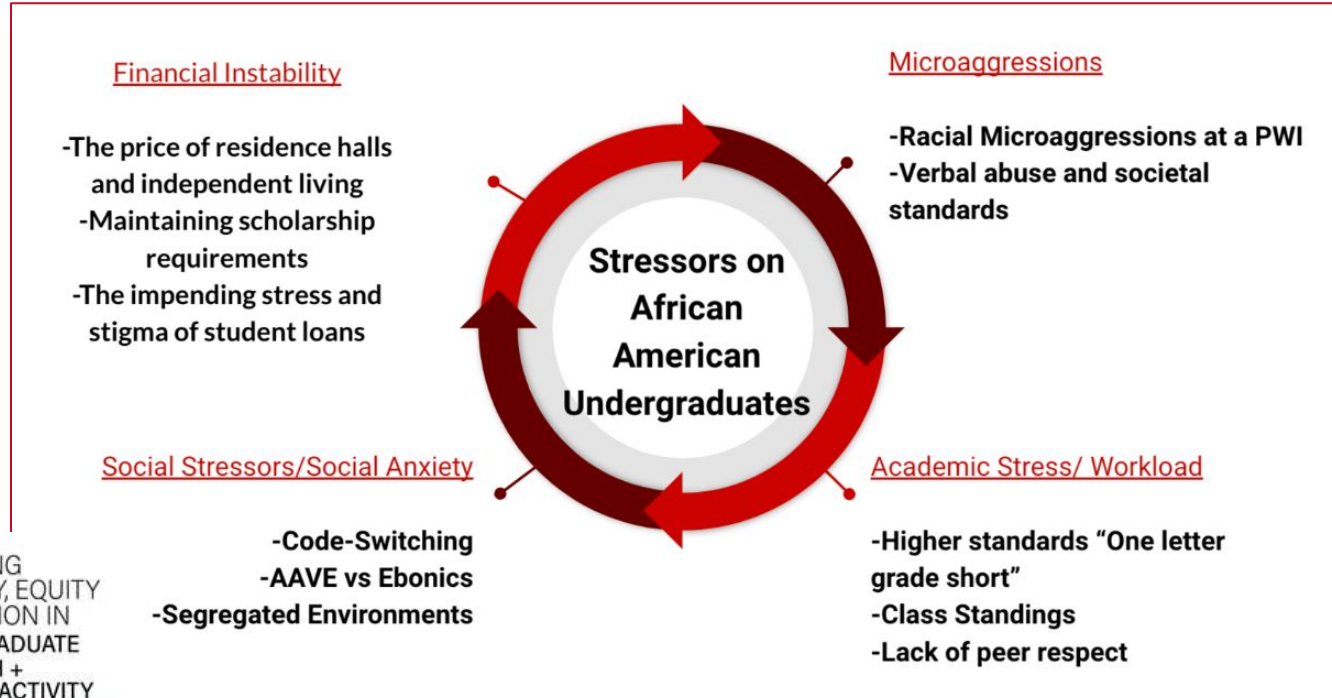
Role of the Student Success Librarian



Nathaniel Floyd
*Student success Librarian for
Foundational Learning*

- » As a Student Success Librarian, I provide research support and promote **library engagement among first-year students** as they transition from high school to college. I serve as the library's liaison to various student affairs offices, including the university's Student Success Center, and the Office of Research for Undergraduates.
 - » I was so happy when Dr. Fernandes asked me to participate in this class. As a librarian, most of my instruction takes place in the context of a **one-off information literacy session (which is fun!)** or a **"how-to-use-the-library-website session" (which is not that much fun!)**. In any case, **I'm usually not able to partner with faculty or students on long term projects**. Participating in this class gave me the opportunity to do those things. It's been a very rewarding experience. I believe librarians at any university would participate in a class like this if given the opportunity.
-

Students created graphical representations of their literature reviews



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Sample Survey Question: Mixed Methods Study (IRB Approved)

.....

Have you experienced a mentoring relationship? YES/NO

- a. IF YES, Faculty/Graduate Student/ Peer Mentor/ Staff/Other
- b. To what extent does it help you socially [Likert Scale]
- c. To what extent does it help with academics [Likert Scale]
- d. *What are the benefits & challenges; what are some desirable attributes?*
- e. *If you are not in a mentoring relationship, what would it take to get into one? Why have you not sought out a mentor?*

SENSE OF
BELONGING

EXPERIENCE OF
BUSINESS STUDENTS

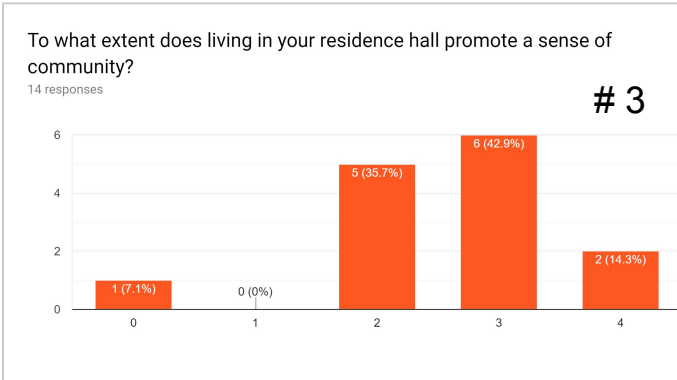
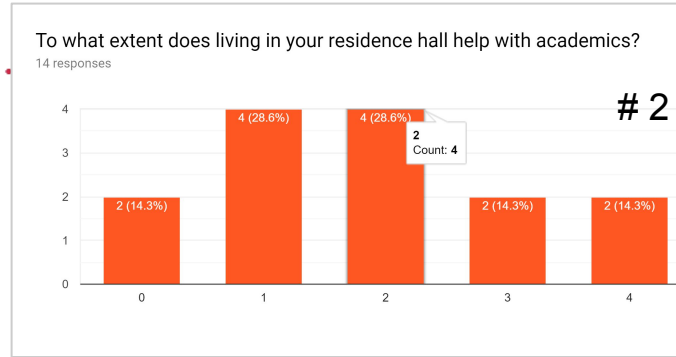
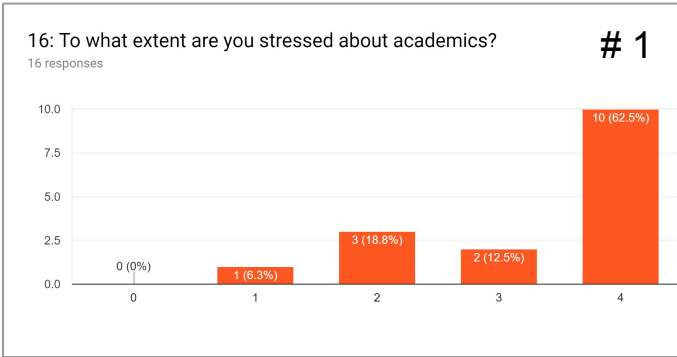
ROLE OF STUDENT
ORGANIZATIONS

MENTORING
EXPERIENCES

IMPACT OF
RESIDENCE HALLS



Analyzing Survey Results: *Implications for practice*



#1 Most students are stressed about academics

#2 Living in residence halls does not help with academics

#3 Living in Residence Halls promotes a sense of community

A possible solution

Create academic communities in residence halls

Beyond FYRE: 2020-2021



- >> **3 students** returned to help prepare a manuscript based on two years of data collection
- >> Registered for **Independent study credit**
- >> **Weekly meetings** in the Spring 2021 semester, with course instructors
- >> **Future work**
 - >> Undergraduate Research Award [Team Project, Fall 2021]
 - >> Present findings at local and disciplinary conferences



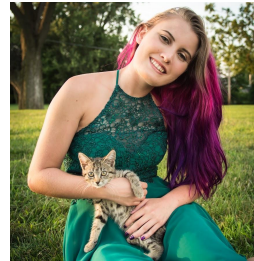
Student feedback- Year 1, FYRE/Bridges

» “I loved my time as a participant in the FYRE program. I was able to get great experience as a researcher while I was a freshman. My time in the FYRE program has **helped shape me into the researcher I am today** and continues to help me grow as a student.” *Lauren Haus*



Lauren Haus, Psychology
Current Position: Alcohol
Research Group
Bridges Student Org

» “Having a small class dedicated to something I cared about with students in my LLC not only **helped me find my love of research** but **eased my transition** to college life.”
Raychel Avila



Raychel Avila, Psychology
Current Position: SASS
Diversity and Inclusion Chair
Bridges Student Org

» “Being involved in the FYRE program helped me bring awareness of **how universities can help minorities succeed in college**. It also gave me the opportunity to learn the critical thinking and analytical skills that I will be using in my future career.” *Mei Castaneda*



Mei Castaneda, Psychology
Current Position:
Bridges Student Org

Student feedback- year 2- Manuscript Prep

- » “Continuing to follow the FYRE data in our independent study has helped me **evolve as a researcher** as well as made me feel like I was doing my part to support Bridges students in a year where housing them wasn’t an option” *Raychel Avila*
- » Preparing a manuscript has shown me that **research takes time, patience, and teamwork**. I am constantly learning new things from my instructors and colleagues and am incredibly grateful for their continued support. I am looking forward to my future as a researcher, and I owe that to the FYRE program and my team.” *Lauren Haus*
- » It has been a blessing to contribute to this research. Working alongside my team has further developed my skills as a researcher by teaching me how to organize and connect data from surveys and interviews. *Mei Castaneda*

PART 2: Discussion

(1) Collaborations that are student centered

- » Involvement of 3 offices
- » Ability to choose subtopic
- » More common ground, LLC and FYRE

(2) Challenges that influence sustainability

- » COVID-19; Leveraged online environment
- » Limited Faculty Interest

(3) Nurturing agency in students

- » Weekly Meetings
- » Team work
- » Open Communication
- » Show, Practice, Rinse, Repeat



[shared google doc](#)

PART 3: Regroup & Share



[shared google doc](#)

Acknowledgements

- ❖ University Libraries
- ❖ Student Success Center
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- ❖ Enrollment Management & Student Success: Sarah Matthews



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Goals of the 2 semester FYRE course

- » Identify the **steps of the research process** and how they lead to knowledge creation
- » Locate and evaluate various **sources of information** on a research topic
- » Develop an appropriate **study to address research questions related to academic success** of Bridges students
- » Become familiar with **research methodologies** that are discipline specific.
- » Recognize **research and creative activities of faculty and students** related to the course topic
- » Identify and utilize **resources across campus** for assistance in conducting research activities
- » Collect and analyze **data in discipline specific formats**; Synthesize and interpret findings
- » Organize an **intentional plan to guide skill development** and research-related activities
- » Interact and perform productively in a **group setting**, including the development of meaningful relationships with faculty, staff, and peers
- » Create a research poster to **present research findings** at the Undergraduate Research Forum in April 2019.

Overview

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 - >> FYRE Bridges
 - >> Continued work

Snapshot: Fall Term

Fall 2019 Enrollment: 11 + 13

Spring 2020 Enrollment: 8 + 3

	In class	DUE on canvas
Monday October 28	Create a listing of articles (1) Extract Info from one article (2A) How to write an annotated Bibliography (3)	Friday Nov 1/Sat Nov 2
Monday November 4	5 minute presentation on one article Create a literature map (4) from all members of a group- useful for writing the introduction	Annotated Bibliography due on Saturday Nov 9
Monday November 11	Parts of a Research Proposal PRIOR work Setting up the research questions	Literature Grid due on Nov 11
Monday Nov 18	METHODS -Discuss from papers Does our approach need tweaking? Presentation 1	INTRO is due
Monday Nov 25	METHODS- Discuss from papers Does our approach need tweaking? Presentation 2	METHODS ARE DUE
December 2	Presentation 3 Expected Outcomes What do we hope to identify?	
Finals week		



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PART 2: Discussion

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- (2) Challenges that influence sustainability
- (3) Nurturing agency in students

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