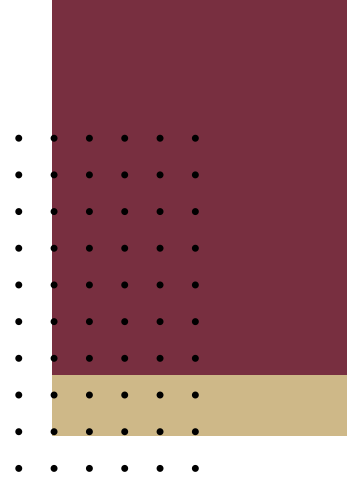


FSU ACADEMIC CENTER FOR EXCELLENCE

**CHARTING  
YOUR STEM  
EDUCATION:  
PLANNING GUIDE**

Gerald Ciani and Parker Ladle

# TABLE OF CONTENTS



STEM Education and Career Planning	pg 3
Identifying Interests and Passions	pg 3
Education	pg 4
Involvement in Student Organizations	pg 5
Undergraduate Research	pg 6
Internships	pg 8
Job Opportunities and Applications	pg 9
Resources	pg 10
Notes	pg 11

# STEM EDUCATION AND CAREER PLANNING

## OVERVIEW OF STEM EDUCATION

STEM education at an undergraduate level is pivotal for preparing students for future dynamic and challenging careers. STEM education equips students with foundational skills of scientific principles and technological skills, but also instills a mindset of continuous adaptability and an eagerness to learn.

## IMPORTANCE OF PLANNING FOR STEM CAREERS

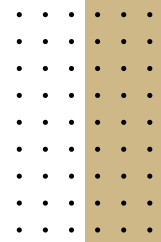
The field of STEM is rapidly evolving. By planning a multifaceted undergraduate STEM education, students are well-prepared and adaptable in their forthcoming professional endeavors.

## IDENTIFYING INTERESTS AND PASSIONS

Obtaining an undergraduate STEM degree is a rigorous feat with numerous challenges and triumphs. The decision to pursue a STEM major at Florida State University is not arbitrary, rather it is driven by profound interests and passions. For this reason, when you graduate with a STEM degree it will be a fulfilling accomplishment because of the commitment you put forth.



# EDUCATION



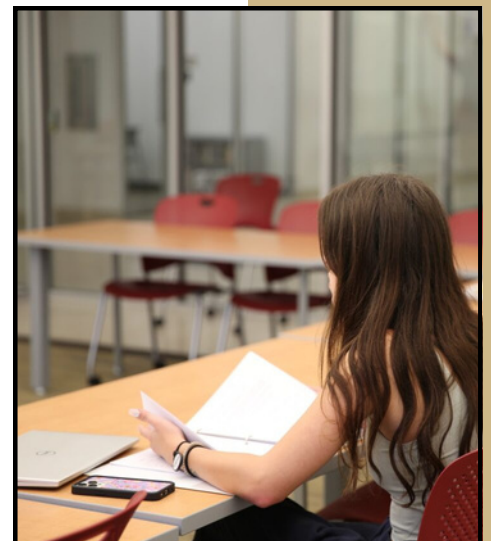
## ACADEMIC EXCELLENCE

STEM majors achieve academic excellence through a varied approach, beginning with the foundational step of attending and being focused in class. Students must utilize study techniques such as concept mapping and mnemonic devices, then integrate Bloom's Taxonomy to master topics. To fully grasp a subject, seeking help from professors, teaching assistants, learning assistants, tutors, and fellow classmates is common. Academic excellence requires time management, including dedicated work, study, and rest periods.



## PLAN FUTURE SEMESTERS

It is paramount to always look forward and plan your future. Using the knowledge from your major and FSU's general education requirements, create a schedule of your next two semesters below. Provide the name of the class and how many credit hours each class is.



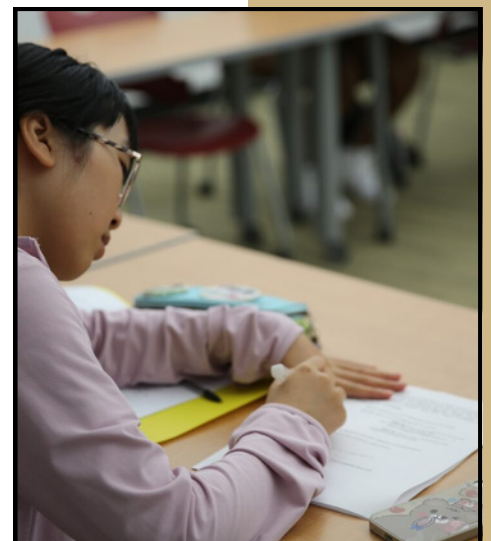
## NEXT TWO SEMESTERS:

### Semester 1:

- 1.
- 2.
- 3.
- 4.
- 5.

### Semester 2:

- 1.
- 2.
- 3.
- 4.
- 5.



# INVOLVEMENT IN STUDENT ORGANIZATIONS

There are over 750 recognized student organizations at FSU. The organizations vary, but involvement in such organizations enhance your experiences at FSU. There is a diverse selection of leadership opportunities, community engagement, and networking possibilities within student organizations. Visit [Nole Central](#) for information on all

organizations at FSU. Some organizations can be found at Market Wednesday and at the involvement fair in the beginning of each semester. Use keywords on the Nole Central website to find organizations that appeal to you. Below, write two organizations that you are either already a member of or plan to join in the near future.

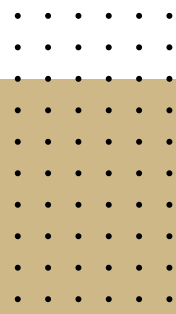
## Organizations I am already in:

- 1.
- 2.
- 3.

## Organizations I want to join:

- 1.
- 2.
- 3.

# UNDERGRADUATE RESEARCH



FSU is a Research 1 institution. R1 institutions are at the forefront of advancement. Such a title is prestigious and exemplifies dedication to research. Engaging in undergraduate research may initially seem daunting. However, it is crucial to dispel this notion that undergraduate research is an insurmountable challenge. In reality, undergraduate research is highly rewarding, it promotes skill development, scholarly growth, mentorship, and networking opportunities.

## GETTING INTO RESEARCH

Step 1: Identify faculty or research group that interests you.

- a) Make sure the area of study is captivating and intrigues you.
- b) Read recent research publications from the faculty or research group. Focus on the main points within the abstract, introduction, and conclusion.

Below, write the names of the three faculty members whose research interests you and write the topic of research.

<b>Faculty members:</b>	<b>Research topic:</b>
1.	1.
2.	2.
3.	3.

Step 2: Reach Out (Virtual or In-Person)

- a) Introduce yourself.
- b) Comment on their research and why it attracts you.
- c) Have your transcript and resume readily available.

Step 3: Discuss your future position.

- a) Hours working per week.
- b) Expectations as a research assistant.

## RESEARCH OPPORTUNITIES AT FSU

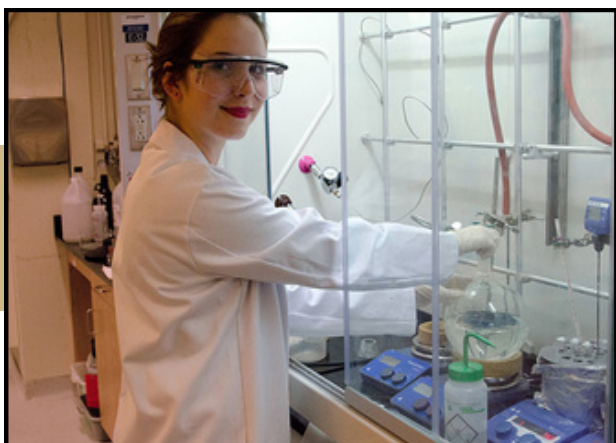
- Undergraduate Research Opportunity Program (UROP)
- Directed Individual Study (DIS)
- Honors in the Major (HITM)
- Idea Grants

## RESEARCH EXPERIENCE FOR UNDERGRADS (REUs)

REUs are opportunities to engage in research at universities across the U.S. They often take place over summer semesters and are supported by the National Science Foundation. REUs are a great way to experience a new topic of research that you are interested in. Another benefit is the networking possibilities that come with participation. Those who participate in REUs are more likely to be accepted for further education, such as graduate school.

Use the NSF website to find three REUs that you are interested in. Write the subject and school that hosts these REUs below:

Host University:	Topic of Study:	Admission Deadline:
1.	1.	1.
2.	2.	2.
3.	3.	3.



# INTERNSHIPS

Internships are valuable educational experiences that provide a bridge between a student's experience in academia and the professional atmosphere. Interns work in a structured hands-on environment, experiencing the industry of their field. The development of technical skills, optimizing procedures, and growth in analytical thinking are all benefits of participating in an internship.

One of the many places to find internships is through Florida State University's Career Center. Using the career center internship opportunities find two internships and their topics of study. Write them below:

<b>Program Name:</b>	<b>Topic of Study:</b>	<b>Admission Deadline:</b>
1.	1.	1.
2.	2.	2.





# JOB OPPORTUNITIES

There are many jobs across Tallahassee and FSU's campus. There is no limit to what job you pursue. However, it is recommended that your job benefits your future. The right job is out there waiting for you. Some jobs that FSU offers for undergraduate students are tutoring, learning assistant, and laboratory assistant.

Are there any jobs that you have found interesting during your time at FSU or in the surrounding community? Write the two jobs that you are intrigued by on FSU's campus or in the community:

<b>Job Title:</b>	<b>Job Description:</b>
1.	1.
2.	2.

## APPLICATIONS FOR FUTURE OPPORTUNITIES

Applications can be for internships, jobs, higher education, scholarships, fellowships, etc. and should always be on a student's mind. The key to succeeding in the application process is time management. Students must take the time to find and apply to the right opportunities.

# RESOURCES

**Career Center:**

[career.fsu.edu](http://career.fsu.edu)

**Directed Individual Study (DIS):**

[honors.fsu.edu/sites/g/files/upcbnu561/files/University%20Honors/What%20is%20a%20Directed%20Individual%20Study.pdf](http://honors.fsu.edu/sites/g/files/upcbnu561/files/University%20Honors/What%20is%20a%20Directed%20Individual%20Study.pdf)

**Honors in the Major (HITM):**

[honors.fsu.edu/honors-major](http://honors.fsu.edu/honors-major)

**Idea Grants:**

[cre.fsu.edu/undergradresearch/ideagrants](http://cre.fsu.edu/undergradresearch/ideagrants)

**National Science Foundation:**

[www.nsf.gov/crssprgm/reu/](http://www.nsf.gov/crssprgm/reu/)

**Office of National Fellows:**

[onf.fsu.edu](http://onf.fsu.edu)

**Undergraduate Research Opportunity Program (UROP):**

[cre.fsu.edu/undergradresearch/urop](http://cre.fsu.edu/undergradresearch/urop)

# NOTES

