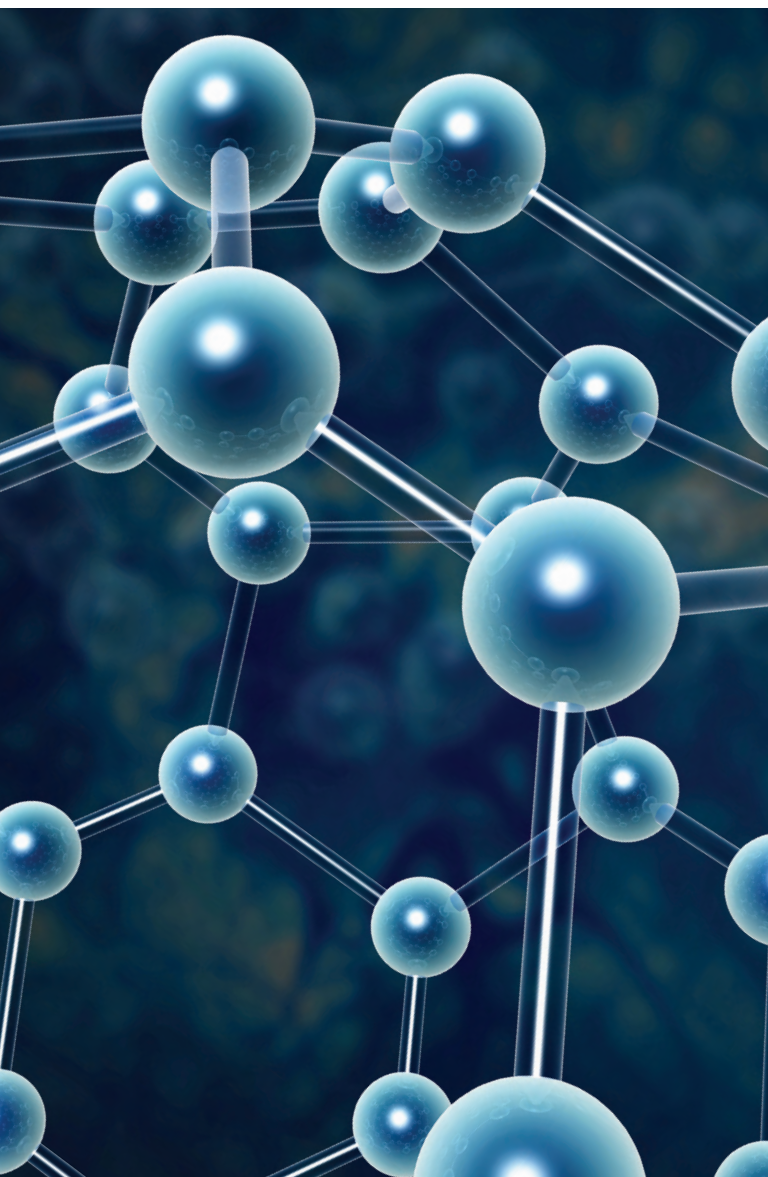


# REU

## RESEARCH EXPERIENCE FOR UNDERGRADUATES



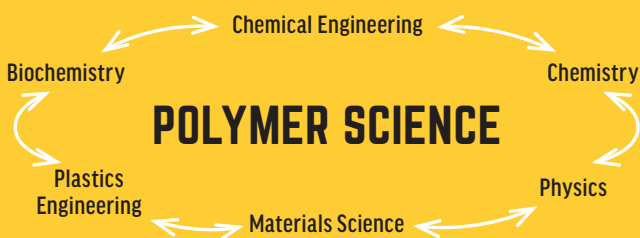
# REU RESEARCH EXPERIENCE FOR UNDERGRADUATES

**2020** Tuesday, May 26 – Friday, July 31

**2021** Monday, May 24 – Friday, July 30

**2022** Monday, May 23 – Friday, July 29

Each summer, participants will be engaged in fundamental research projects that span the complex, interdisciplinary facets of materials sustainability—including polymer synthesis from renewable sources, materials with enhanced properties and lifetime, materials to improve utilization of natural resources, reduced energy polymer processes, and biodegradable materials—while gaining the tools to assess the environmental impact of new material development.



## RESEARCH AREAS

### **Design for Recyclability and Degradability**

Synthesis of degradable thermosets, development of polymers with degradable linkages, design/modeling/processing of high performance recyclable thermoplastic matrix composites

### **Materials for Sustainable Energy**

Synthesis and characterization of polymer membranes for CO<sub>2</sub> separation and H<sub>2</sub> purification, evaluation of electrode composites for renewable energy storage, design of melt processable conjugated polymers for printed electronics

### **Sustainable Polymers: (Bio) Renewable Feedstocks and Resource-Efficient Processing**

Synthesis of polymers from vegetable oil derivatives for high performance coatings, design of antimicrobial polymer surfaces using naturally occurring bacteriophages



## PARTICIPANT BENEFITS

- \$6,000 summer stipend
- On-campus housing ([usm.edu/housing](http://usm.edu/housing))
- Limited travel support
- Team-building activities
- Field trips

## APPLICATION MATERIALS

- Completed application form
- Two letters of recommendation
- Current transcripts

## DEADLINE

All application materials are due March 1.  
[usm.edu/reu](http://usm.edu/reu)

## LOCATION

(Hattiesburg) [hattiesburg.org](http://hattiesburg.org)

One hour from Mississippi Gulf Coast

Close to New Orleans, Mobile and Jackson

## CONTACT US

**ANNA PATTERSON**

[Anna.L.Patterson@usm.edu](mailto:Anna.L.Patterson@usm.edu)

601.266.6852

**DR. SARAH MORGAN**

[Sarah.Morgan@usm.edu](mailto:Sarah.Morgan@usm.edu)

601.266.5296

**DR. HEATHER BROADHEAD**

[Heather.Broadhead@usm.edu](mailto:Heather.Broadhead@usm.edu)

601.266.6867



THE UNIVERSITY OF  
**SOUTHERN**  
**MISSISSIPPI.**

**FOR MORE INFORMATION, CONTACT**  
**SCHOOL OF POLYMER SCIENCE**  
**AND ENGINEERING**

118 College Drive #5050

Hattiesburg, MS 39406

601.266.4868

[usm.edu/reu](http://usm.edu/reu)