The University of Mississippi



UNDERGRADUATE RESEARCH @UM

ORSP INFORMATION SESSIONS

SPRING 2018

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- Introductions
- ORSP Undergraduate Research Fellow
- UGR @ UM Webpage
 - UG Research Directory
- UM UG Research Journal
- UM Call for UG Research & Creative Scholarship Proposals
- Student Program Review Board
- NSF REU Program Discussion
- Proposal Mentorship Opportunities
- UM Guidelines for HS Research
- Rebel Research Scholars
- Questions/Discussion

Undergraduate Research Fellow



- Jason Ritchie, Ph.D., Associate Professor in Chemistry & Biochemistry
- Part-time effort in ORSP to facilitate undergraduate research and creative scholarship across campus
 - Appointment is for 2017-2018 academic year
- Developing a central Webpage/landing spot for sharing information about UGR opportunities available
 - Rebranding and broadening focus of UGR Database
- Faculty Advisor for UM UGR Journal
- Developing a process for soliciting, evaluating, and funding proposals for UG research and scholarship at UM
- Developing recommendations for expanding UGR support going forward

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University of Mississippi Undergraduate Research Journal

The University of Mississippi Undergraduate Research Journal (UMURJ) is a yearly peer-reviewed publication of research articles written by the University's undergraduate students from all disciplines.

The mission of UMURJ is to serve as a prestigious recognition of excellent student work. We aim to share work that students are discussing, studying, and proud of, on a platform that honors those endeavors.

http://ugr.olemiss.edu



Undergraduate Research at UM

UGR Database

UGR Research Support

For Students For Faculty



Undergraduat					
UGR Database	UGR Resea	rch Support	For Students	For Faculty	

For Faculty

This page hosts resources to help Faculty involve undergraduate students in research projects.

Engaging Students in Research

Programs for Engaging Students in Experitial Learning

University guidelines limit the number of hours an undergraduate or graduate student may work to 25 hours in any given workweek (Monday – Sunday). Exceptions may be permitted when students participate in a program that provides an educational experience as approved by the *Experiential Program Review Board*. If you believe your department offers this type opportunity, then please visit the link below and complete the Experiential Program Request Form. Requests are reviewed by the *Experiential Program Review Board*, made up of representatives of HR, ORSP, Financial Aid, Outreach, Provost's Office, Dean of the College of Liberal Arts, the University Research Board, and other faculty members. Annual reviews are required.

http://research.olemiss.edu/resources/students

Undergraduate Research at UM

UGR Database UGR Research Support For Students For Faculty

For Students

This page hosts resources to help undergraduate students find opportunities to get involved in undergraduate research projects at the University of Mississippi.

List of On-campus Undergraduate Research Programs

Lists of Off-Campus Internship Opportunities for Undergraduate Research and Scholarship

- Engineering and Science Internships
- Biomedical Science Internships
- Humanities and Social Science Internships
- Other Internships

List of Departmental Courses that can be used to get credit for Undergraduate Research



This Database contains information about Faculty Research Interests (listed in individual profiles) and Faculty Research Projects.

Instructions for using the Database:

Search Database by Key Word:

Search All Research Projects and Faculty Profiles by Key Word:

Search Key Words: Submit

Browse Faculty Research Profiles

Browse Available Research Projects

Faculty Access

Undergraduate Research at UM

UGR Database	UGR Research Support	For Students	For Faculty
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Departmental Courses for Undergraduate Research

This page contains descriptions and links to many of the courses in departments that can be used to get credit for undergraduate research projects.

ACCOUNTANCY

ACCY 420. Independent Study. Reading and research in a topic in the field of accountancy. (1 – 6 Credits) PREREQUISITES: Course may be repeated only once.

AFRICAN AMERICAN STUDIES

AAS 504: Research in African American Studies. Intellectual history of research about the African American experience and the rise of African American studies. Critical examination of past and current research and its significance to various disciplines. (3 Credits) PREREQUISITES: Instructor Approval Required, Senior or above standing required, AAS 201 or AAS 202

Undergraduate Research at UM

UGR Database UGR Research Support For Students For Faculty

Lists of Off-Campus Internship Opportunities for Undergraduate Research and Scholarship

- Engineering and Science Internships
- Biomedical Science Internships
- Humanities and Social Science Internships
- Other Internships

- External Funding Ops
- Will be added to the website as we go
- Some targeted to students
- Some targeted to faculty

The Fred Hutchinson Cancer Research Center List of Biomedical Research Internships

The following catalog features approximately 260 biomedical research internships offered nationwide for high school, undergraduate, post-baccalaureate, graduate, and first-year medical students. This catalog is organized by academic level and discipline and the programs are alphabetized according to the name of the sponsoring institution or organization. For more information about a specific internship, please refer to the program's website or contact the respective administrator.

https://www.fredhutch.org/content/dam/public/education/surp/internships.pdf

THE UNIVERSITY OF MISSISSIPPI

Flagship Forward



Flagship Forward INSPIRE. DISCOVER. TRANSFORM.

The University of Mississippi (UM) has embarked upon a bold path of ever-increasing excellence in making a positive difference in society through higher education. Every day, across all our campuses, we see the power of higher education at work — in inspiring excellence, discovering new knowledge, advancing health and wellness, and making our world a better place. The power of higher education can truly transform lives, communities, and the world. *FLAGSHIP FORWARD* is our roadmap to doing so.

This strategic plan focuses upon the main campus in Oxford and its regional campuses in Tupelo, Southaven, Grenada, and Booneville, which we collectively refer to as UM Oxford. *FLAGSHIP FORWARD* also leverages some university-wide *transformative initiatives* for UM as a whole, which includes the University of Mississippi Medical Center (UMMC) in Jackson and other venues in Mississippi.

Flagship Forward



UM's Flagship Forward Strategic Plan calls for several actions related to undergraduate experiential learning and intellectual engagement:

- develop programs that build "bright pathways" for students to engage in intellectual pursuits with faculty, staff, and students;
- facilitate opportunities to foster intellectual engagement among faculty, staff, students, and external partners; and
- encourage the development of experiential learning in all undergraduate academic programs

UM Call for Proposals



- To advance these goals, the Provost's Office and ORSP that will facilitate and encourage undergraduate research on the Oxford campus via three tracks of competitive funding. A total of \$50,000 is available this year.
- Track 1: Student Research Fellowship
 - Student initiated, faculty mentored, summer research projects

• Track 2: Summer Undergraduate Research Group Grants

- Faculty initiated pilot programs for mentored summer research experiences for undergraduates; should lead to a competitive external funding proposal for program expansion and sustainment.
- Track 3: Undergraduate Travel Grants
 - Student initiated grants to defray cost of UM students travelling to presenting results of UG research or creative scholarship.



• **Q**: Are UM professional students eligible to apply for Travel Grants?

A: Yes, if they were undergraduates at UM at the time they did the research.

- Q: Are UM seniors eligible to apply for Summer Research Fellowships?
 A: Yes, if they will not be graduating until at least Dec 18.
- Q: For Track 1 or Track 2 proposals, can mentor's stipend be used for something besides summer salary?
 A: Yes, we will consider other uses for these funds.
- Q: Can this program be used to fund existing programs?
 A: To expand them or bridge them to sustained funding, yes. But not to supplement existing projects.

Look Over RFP



- Handouts
- Webpage

Student Program Review Board



- UM limits student employment to 25 hours/week ACA
- Meets monthly to review requests to create summer experiential learning programs
- Representatives from: ORSP, HR, Procurement, Financial Aid, Provost's Office, Dean of Liberal Arts, etc.
- Students may be paid participation stipends for up-to-fulltime participation in approved summer programs
 - Paid program participation does NOT count against the 25 hour/week employment ceiling for UM students
- Download Request Form/Instructions from
 <u>http://research.olemiss.edu/resources/students</u>
- 13 UM programs approved since 2016

Undergraduate Research at UM

UGR Database

UGR Research Support

For Students Fo

For Faculty

Undergraduate Research Programs at the University of Mississippi

The following experiential learning programs have been approved for the indicated timeframes by the **UM Student Program Review Board**, which means student participation in these programs (whether paid or not) is NOT considered work/employment, for purposes of complying with the Affordable Healthcare Act.

1. Operation I.C.B., 2016, 2017, 2018

Operation ICB is a four week summer research initiative in supramolecular chemistry.

Program Director: **Davita Watkins** Chemistry/Biochemistry Number of UG/HS Participants: 2016=1; 2017=2; 2018=4(anticipated)

2. Ole Miss Chemistry Research Program, 2016, 2017, 2018

The primary objectives are to bring a diverse cohort of 10 students to the campus of the University of Mississippi for a meaningful chemistry research experience in an educational and collaborative atmosphere alongside UM students and to encourage all of these students to attend graduate school in chemistry after graduation.

Program Director: Nathan Hammer Chemistry/Biochemistry

3. MS Water Security Institute, 2017, 2018

Honors college students from all MS universities are eligible to apply. 17 will be selected to participate. Purpose is to prepare undergraduates to understand and protect Mississippi's water resources.

Program Director: **Cliff Ochs** Honors College Number of Participants: 2017=15;2018=17(anticipated)

4. ARISE @ UM, 2017, 2018

Program Director: **Erik Hom** Liberal Arts Number of Participants:

5. Henry E. Bass Basic Acoustics Summer School Program (BASS), 2017, 2018

The purpose of the BASS Program is to provide undergraduate students the opportunity to do real-life research directed by experts in the field, on currently relevant physical acoustics topics not ordinarily encountered in the undergraduate experience.

Program Director: Marta Panickar National Center for Physical Acoustics Number of Participants: 2017=2; 2018=2(anticipated)

8. NASA Space Center Traineeships 2017

Program Director: Earnest Stephens

NASA MS Space Grant Consortium

Number of Participants: 4

9. UM STEM Summer Research Experiences for Undergraduates Program – STEMS-REU, 2017, 2018 (pending)

The objective of this 10-week summer program is to provide educational science research opportunities at the University of Mississippi to undergraduate students who are seeking research experiences and considering a career in research or academia. Provides students with opportunities to learn about cutting-edge STEM-related topics, develop presentation and communication skills, and practice networking skills, as well as opportunities to explore and develop their interest in cutting-edge STEM-related research.

Program Director: **Hoang Le** Biomolecular Sciences Number of Participants: 2017=8;

10. UM Sunflower County Freedom Project Internship Initiative, 2017

This program seeks to engage high performing Ole Miss students with Mississippi's highest need areas, honing their teaching/leading and philanthropic knowledge and skills through participating in the Sunflower County Freedom Project in Sunflower, Meridian, or Rose Hill, MS.

Program Director: **JoAnn Edwards** Lott Leadership Institute Number of Participants: 2017=3

A. Mississippi Space Grant Consortium (MSSGC) Summer Industry Training Program 2017, 2018 (pending)

The main purpose of the training program is to enhance aerospace and aerospace related training and learning opportunities and to serve as a gateway to science, technology, engineering, and mathematics careers and activities for students. Students selected for the training program will be introduced to a training environment/experience that will provide them with a learning experience designed to increase their knowledge, awareness, and skill set as they relate to Science, Technology, Engineering, and Mathematics (STEM). The knowledge and skill set should be applicable to the students' learning environments when they return to the classroom or workforce after completing the training program.

Program Director: Earnest Stephens NASA MS Space Grant Consortium Number of Participants: 2017=5;2018=

11. NASA MSFC Undergraduate Research Experience 2017, 2018 (pending)

Program Director: Ahmed Al-Ostaz & Hunain Alkhateb

Civil Engineering Number of Participants: 2017=5;2018=

12. Pharmacy Student Research Program, 2018

This program provides mentored research opportunities to University of Mississippi School of Pharmacy early entry and professional students (rising EE2-PY3) who are seeking research experience and may be considering a career in research or academia.

Program Director: David Gregory Pharmacy Number of Participants: 2018 (less than 10)

13. MS Experiential Learning in East Asia, 2018

Funded by the Freeman Foundation, this program provides 18 UM undergraduate students with an immersive experience in East Asia, to deepen and enhance their educational experience by learning first-hand how a foreign culture impacts the work environment and help prepare them to succeed in a complex, global world.

Program Director: Oliver Dinius

Croft Institute

Number of Dertisinenter 2019-19 (entisineted)

NSF REU



- https://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5517&from=fund
- The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for support of student research: (1) REU Sites are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department or may offer interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome. (2) REU Supplements may be included as a component of proposals for new or renewal NSF grants or cooperative agreements or may be requested for ongoing NSFfunded research projects.

ORSP UM Grant Mentor Incentive Program



- Proposer: Identify a potential UM Mentor for a funding opportunity
 - UM faculty member with recent success in extramural funding competitions
 - ORSP can assist in identifying/vetting mentors
- Mentor and Proposer: Agree to work together on the proposal
 - Complete a Mentor Agreement Form
 - Obtain sign-off from Chair and Dean of Mentor and Proposer
 - Upload the signed form to the online transmittal (TSS)
- Develop and submit proposal
 - Mentor receives \$500 in extra pay for extra work (from Proposer's dept./school)
 - If proposal is funded, mentor receives \$500 award pay from ORSP

http://research.olemiss.edu/GrantMentors

Research Development Fellows



• ORSP Research Development Fellows

- Greg Easson, Professor of Geological Engineering, Director of Mississippi Mineral Resources Institute
- Christian Sellar, Associate Professor of Public Policy Leadership
- Nathan Hammer, Associate Professor of Chemistry & Biochemistry
- Mission is to help faculty be more competitive for grant proposals, including but not exclusively interdisciplinary proposals)
- Available for discussions, enhanced reviews of CAREER proposal ideas, draft proposals, and full proposals
- E-mail <u>researchfellows@olemiss.edu</u>

Guidelines for HS Research



- Currently: No UM Policy governing participation of HS students in research/labs
- However, there exists patchwork of relevant policies (lab safety/ training, minimum age in certain types of labs, supervision of minors, etc.)
 - Including a Minors in University Laboratories Fact Sheet
- ORSP and Outreach have developed a Resource Guide for Research Experiences Involving High School Students
 - Helps faculty navigate the patchwork of policies
 - Recommends additional measures to ensure adequate supervision and safety
 - Provides for an Advisory Board to review proposals for HS research experiences and provide input on health, safety, legal, & procedural matters
- Download Resource Guide and Fact Sheet from <u>http://research.olemiss.edu/resources/students</u>

Rebel Research Scholars

http://www.outreach.olemiss.edu/pre_college/research_experience/



> The University of Mississippi -> Staff -> Contact -> Email

Search...

ACADEMIC COMPETITIONS * CONFERENCES * DUAL CREDIT * PROGRAMS * UMHS * STUDENTS *

Rebel Research Scholars:

Summer Research Experience





Find it here

Rebel Research Scholars: Summer Research Experience

Summer Research Experience

The University of Mississippi Rebel Research Scholars Program offers hands-on, faculty-led research experiences in our labs here

Rebel Research Scholars



- Registration
- Student Housing
- Supervision
- Activities and Entertainment
- UM Credit
- Scholarships

	Residential Scholar				Commuting Scholar		
	Credit		Non Credit		Credit	Non Credit	
EXPENSES (per student)	4-Wk SC Model	8-Wk SC Model	4-Wk Model	1-Wk Model	4-Wk Model	4-Wk Model	1-Wk Model
Housing	\$500.00	\$1,000.00	\$1,050.00	\$175.00	\$0.00	\$0.00	\$0.00
Meals/Meal Plan	\$500.00	\$1,000.00	\$500.00	\$120.00	\$180.00	\$180.00	\$45.00
Program Supervisory Fee	\$820.00	\$1,570.00	\$770.00	\$208.00	\$300.00	\$250.00	\$78.00
Administrative Salaries & Benefits	\$50.00	\$100.00	\$50.00	\$13.00	\$50.00	\$50.00	\$13.00
Coordinator Salarles & Benefits	\$140.00	\$280.00	\$140.00	\$35.00	\$140.00	\$140.00	\$35.00
Counselor Staff	\$520.00	\$1,040.00	\$520.00	\$130.00	\$0.00	\$0.00	\$0.00
UM Admissions Application Fee	\$50.00	\$50.00	\$0.00	\$0.00	\$50.00	\$0.00	\$0.00
PCP Swag Packs w/ T-shirt (fixed cost)	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00	\$20.00
Supplies	\$40.00	\$80.00	\$40.00	\$10.00	\$40.00	\$40.00	\$10.00
Weekend Entertainment and Travel	\$140.00	\$280.00	\$140.00	\$0.00	\$140.00	\$140.00	\$0.00
Turner Center Fee per scholar	\$0.00	\$0.00	\$100.00	\$25.00	\$0.00	\$0.00	\$0.00
TOTAL EXPENSES per scholar	\$1,960.00	\$3,850.00	\$2,560.00	\$528.00	\$620.00	\$570.00	\$123.00

Meals

Program Models and Costs

Rebel Research Scholars



Program Proposals

 Faculty members and researchers wishing to access Rebel Research Scholars services for their experiential learning program participants must submit proposals via email to the Rebel Research Scholars Committee (precollege@olemiss.edu) no later than March 1st.

A complete Rebel Research Scholars proposal should include:

- Details of the program, including general schedule (required)
- Data field listing for application (required)
- Copy of a Experiential Program Request Form that has been marked Approved by the Experiential Program Review Board (recommended)
- Confirmation that the program has been reviewed by the High School Research Advisory Committee (recommended)