

Resource Guide for Research Experiences Involving High School Students

This document establishes guidelines for all UM (Oxford campus) research involving high school students as Program Participants (Rebel Research Scholars) or Co-researchers. These guidelines establish a protocol for faculty and staff mentors involving high school students in research, in accordance with all applicable University policies. These guidelines do not replace or override an active UM policy. A complementary document to this one is the *Minors in Labs Fact Sheet* maintained by the UM Department of Health and Safety. All existing or planned research programs involving high school students should adhere to these guidelines, as should any other situations involving high school students as researchers, whether or not the students are deemed program participants, and whether or not they are working on projects supported by external grants or contracts.

The Office of Pre-College Programs in the Division of Outreach and the Office of Research and Sponsored Programs will share ownership for maintaining and promoting adherence to these guidelines in the establishment and conduct of research involving high school students through the *Rebel Research Scholars* program. A *Rebel Research Scholars Advisory Board* will provide input on health, safety, and procedural matters related to high school students in research.

Rebel Research Scholars (Scholars). Rebel Research Scholars (high school students) will engage in a *Research Experience* under the supervision of a designated UM Mentor (*Mentor*). Mentors may be assisted in this supervision by other employees or by graduate or undergraduate students with research or research support responsibilities (*Assistant Mentors*). A Participant's Mentor and Assistant Mentors make up his/her *Mentor Team*. During the Research Experience, the Rebel Research Scholar will undertake and complete a research project (*Project*) defined and supervised by the Mentor.

Many Research Experiences will require that Rebel Research Scholars spend time (*Lab Research Hours*) engaging in research and experiments (*Lab Research Activities*) in a designated research laboratory or field site (*Lab*) that may have specialized equipment, materials, and/or controlled conditions. A Rebel Research Scholar will only engage in Lab Research Activities within a Lab that is managed by that Participant's Mentor, and under the close supervision of that Participant's Mentor Team. Furthermore, each Mentor will ensure that none of his/her own *Assigned Scholars*, nor any other Rebel Research Scholar, is ever left unattended in the Lab. Mentors will maintain a Lab sign-in/out form and ensure that of their own Assigned Scholars "sign in" upon entering the Mentor's Lab, and "sign out" upon exit.

In addition to Lab Research Activities, Scholars may be required by their Mentors to engage in additional activities—activities that do not require access to the Lab, but that nevertheless advance either the project or the Participant's academic/career development. These *Non-Lab Research Activities* will take place under the supervision of the Mentor Team, in one or more designated *Non-Lab Research Spaces* (e.g., offices or common areas) within the building of the Mentor's home department or research center. Together, the Lab where a Scholar will be conducting Lab Research Activities, and the designated Non-Lab Research Space(s) where a Scholar will be conducting Non-Lab Research Activities, will compose that Scholar's *Research*

Environment. Each Mentor will be responsible for ensuring that all of his/her Assigned Scholars are appropriately supervised (consistent with the requirements in this document) during all times spent (*Research Hours*) in their designated Research Environments.

Students as Subjects

If data is being kept on Rebel Research Scholars to track interest or progress for research purposes, the Mentor should follow the protocols regarding IRB approval.

Permanent UM employees who are eligible to serve as a PI on a UM sponsored project (per UM Policy Number 10000651: Definition of a Principal Investigator) may submit an *Experiential Learning Program Request Form* to the Advisory Board requesting endorsement as a Mentor for one or more proposed High School Student Research Experiences. Applications should be sent to studentprograms@olemiss.edu no later than 1 month before the proposed start date of the program/mentorship. The form can be downloaded from <http://research.olemiss.edu/resources/students>.

Per University policy, Rebel Research Scholars under the age of 18 will not be allowed to work on projects that involve radioactivity, and Rebel Research Scholars under the age of 16 will not be allowed to be/work in areas where hazardous (chemical) materials are used or stored.

Rebel Research Scholars and their Guardians will be required to sign a statement agreeing to follow all lab/program rules at all times. In the event that a Rebel Research Scholar is reported to be acting in an irresponsible or malicious manner, immediate action will be taken to remove the Rebel Research Scholar from the lab/research environment.

Advisory Board

A Rebel Research Scholars Advisory Board (*Advisory Board*) made up of UM employees will provide collective input and guidance on matters of safety, policy, and administration for high school research experiences and review supervision plans from prospective mentors. The Advisory Board will be made up of each of (or a designated representative from) the following:

- the Office of the Vice Chancellor for Research and Sponsored Programs (to advise to ensure high quality, consistent research experiences for Program Participants, and clarity for Mentors on what is expected of them; to advise on how to compete for and leverage external grants and sponsored programs to enable more students to participate; to advocate for the program)
- the Department of Health and Safety (to advise on issues of policy and safety in labs)
- the Division of Outreach and Continuing Education (to advise on issues related to issues of recruiting, housing, feeding, supervising, and providing non-research-hours programming for Program Participants)
- the Institutional Review Board or Division of Research Integrity and Compliance (to advise on collection and use of data about Participants, including outcomes)
- Equal Opportunity/Regulatory Compliance Office (to advise on Supervision of Minors)

The Advisory Board will meet periodically to consider applications from prospective mentors. For Research Experiences planned for the summer, all final plans must be in place by May 15 before the summer experience begins to allow for background checks and Supervision of Minors training to be completed.

Participation of Minors

All Mentors and Assistant Mentors acting as Authorized Adults¹ must comply with the UM Supervision of Minors² policy. Some terms of that policy are listed below.

- No person 18 years of age or older shall have One-On-One Contact with Minors.
- Duty to Report: If any person has reason to suspect that a Minor has been subject to neglect or abuse, he or she must:
 - Inform the Mississippi Department of Human Services by calling the Abuse hotline (800- 222-8000) and provide written notification to the Department of Human Services as soon thereafter as possible. See Miss. Code Ann. § 43-21-353
 - Inform the University Police Department (662-915-7234) or other appropriate law enforcement agency, and if the suspected assault or abuse presents an imminent danger to a Minor, contact should occur immediately.
 - If the Minor is a participant in a Program, inform the Program Director immediately. The Program Director will immediately notify the University Police Department and the Title IX Coordinator or designee. If the Program Director may be involved in the suspected assault or abuse the person should report the suspected assault or abuse to the University’s Title IX Coordinator or designee (662-915-7045).
- “See Something, Say Something”: If any person witnesses a violation of this policy, such as One-on-One Contact, or anything that gives rise to concern for the health or safety of a Minor, that person shall immediately notify the University’s Title IX Coordinator or designee (662-915-7045).

The Office of Pre-College Programs in the Division of Outreach will ensure that all active Mentors and Assistant Mentors have completed background checks (must be renewed every 3 years) and have completed the Supervision of Minors Training (certification must be renewed yearly) through the UM Title IX Coordinator: <http://eorc.olemiss.edu/minors/>. In general, the Mentor’s department will be responsible for the cost of the background checks. Mentors must designate an Authorized Adult at least 21 years of age to be on-call and accessible to program participants at all times.

Supervision of Minors training can be found here: www.tinyurl.com/MinorsPresentation . The certification quiz can be found here: www.tinyurl.com/MinorsQuiz .

Rebel Research Scholar Requirements and Application Components

¹ UM defines an Authorized Adult as Program Staff eighteen (18) years or older who supervise, chaperone, or otherwise oversee Minors in Programs. This includes but is not limited to, faculty, staff, volunteers, graduate and undergraduate students, interns, employees of temporary employment agencies, and independent contractors/consultants.

² UM defines a “minor” as any individual under the age of 18 OR not enrolled as a university student.

Rebel Research Scholars must meet the following criteria or arrange to provide the following in their application to any research program³:

1. Rising 9th (i.e., completed 8th grade) through 12th grade (including individuals who may have graduated from high school just prior to the summer) are eligible. Home-schooled applicants will need a letter from a Guardian certifying their grade status (or other valid alternative certification).
2. Set of signed consent forms (see below) including Guardian Consent form acknowledging the realities of working in a university lab setting and the risks associated with the research project (both standard risks and unusual risks will be specified).

Decisions (and exceptions) for acceptance for each lab or program will ultimately be determined at the discretion of the affiliated Mentor(s).

Rebel Research Scholars will not be permitted the Labs earlier than 8:30 am or no later than 4:30 pm on any day.

The precise length of the Research Experience should be reviewed by the Advisory Board prior to the start of the experience, along with any anticipated vacation breaks within this period.

Rebel Research Scholar acceptance forms will include the following:

1. Participant/Guardian Consent (transcripts, publicity, involvement in longitudinal study)
2. Medical Treatment Consent and Liability Release
3. Participants in Labs Consent
4. Misconduct Dismissal Agreement
5. Good Faith Commitment to Stay in Touch with mentor and the Office of Pre-College Programs, members of which may contact previous Rebel Research Scholars using credentials that originate from the university (e.g., university-issued email accounts only, not personal accounts). Contact may be via letters, e-mail, and phone call from a university phone number (not video chat, text message, social media messaging, or personal telephone, etc.). Program Twitter and Facebook accounts (with at least 2 public administrative contacts actively receiving any correspondence notifications) may be used to post announcements to groups of Participants.
6. Health, Safety, and Compliance Statement
7. Supervision Plan

Rebel Research Scholars – Residential Scholars

Rebel Research Scholars who wish to reside on campus will need to apply to the appropriate program offered through the UM Pre-College Program, managed by the UM Division of Outreach and Continuing Education. If accepted, these *Residential Scholars*' time outside of their designated Research Hours will be managed through the Pre-College program. This includes personal time, sleeping arrangements, meals, and off-hours programming appropriate for the age of the student. As such, these Residential Scholars will be required to follow all rules

³ Note: A mentor may request specific guidelines beyond/or in lieu of the requirements listed in this document, ie. GPA requirements, ACT score, etc.

and regulations of the UM Pre-College Program. Outreach will be responsible for appropriate supervision of these students during all off-hours.

Rebel Research Scholars and their Guardians must sign the Pre-College Program's parent/student consent form, general guidelines and rules for the specific program, ID form, learning style questionnaire, medical treatment consent and liability release form.

Generally, Rebel Research Scholars and/or their Mentors (through authorized university or sponsored program accounts) will be responsible for the costs associated with the housing, meals, and program fees for the Pre-College Program in which the student is enrolled.

Commuting Scholars

Non-residential students should report to the lab no earlier than 8:30 a.m. and should exit the lab no later than 4:30.

If the research internship is eligible for UM credit, students may receive half-tuition through the UM Dual Credit Program through the Office of Pre-College Programs in the Division of Outreach.

Participant parking passes should be obtained through UM Parking Services. Participant meal plans can be purchased through UM Dining Services. The Office of Pre-College Programs can help facilitate this process but should not be held responsible for providing these services.

Students – Dual Credit

UM credit is available for the research experience through BISC 100 or LIBA 103 if the student research time meets the required number of seat hours.

BISC 100: Research Internship. High school or community college students participate in a research experience with the mentorship of a biology faculty member. Students will learn how the scientific method is applied in a research setting, develop practical communication and scientific writing skills, and engage in STEM career discussions. Course may not be counted towards a major or minor in biological science. This course may be repeated for credit with a maximum of 6 credits. Z-graded. Prerequisite: Approval of supervising faculty member. (1-3)

LIBA 103: STEM Research Internship. High school or community college students will participate in a research experience with the mentorship of a STEM faculty member. Students will learn about how the scientific method is applied in a research setting, develop practical communication and scientific writing skills, and engage in STEM career discussions. This course may be repeated for credit with a maximum of 6 credits. Z-graded. Prerequisite: Approval of supervising faculty member. (1-3)

DEFINITIONS:

Rebel Research Scholar: A current, rising or recently graduated high school student who has applied and been accepted to an Approved Student Traineeship Program at UM.

Student Co-Investigator: A student participating in research as a co-investigator who is not a participant in an Approved Student Traineeship Program at UM.

Student Research Subject: A student who is the subject of research study being conducted by a UM researcher.

Advisory Board: A group of UM employees who provide collective input and guidance for mentors of high school students involved in research, on matters of safety, policy, and administration. Consists of each of (or a designated representative from) the following:

- the Office of the Vice Chancellor for Research and Sponsored Programs (to advise to ensure high quality, consistent research experiences for Program Participants, and clarity for Mentors on what is expected of them; to advise on how to compete for and leverage external grants and sponsored programs to enable more students to participate; to advocate for the program)
- the Office of the University Attorney (to advise on issues of policy and risk to the institution, Program Participants, and individual employees)
- the Department of Health and Safety (to advise on issues of policy and safety in labs)
- the Division of Outreach and Continuing Education (to advise on issues related to issues of recruiting, housing, feeding, supervising, and providing non-research-hours programming for Program Participants)
- the Institutional Review Board or Division of Research Integrity and Compliance (to advise on collection and use of data about Participants, including outcomes)

Assistant Mentor: UM employee or student employee who assists the Mentor in the supervision of students during Research Lab Activities.

Assigned Scholars: The Rebel Research Scholars that are assigned to (supervised) a given Mentor.

Guardian: One of a Program Participants parents or legal guardians.

Health and Safety Statement: an appropriately signed statement detailing any standard Health & Safety policy/risks that apply to the proposed research project and outlining, if applicable, any remarkable/exceptional risks not covered by the standard policies.

High School Applicants: Rising high school students, and individuals who will have just completed their senior year of high school prior to the beginning of the summer being applied to, are eligible to apply to be Rebel Research Scholars.

Lab: a research laboratory or field site, which may or may not have specialized equipment, or a controlled atmosphere.

Lab Research Activities: activities that are required of a Rebel Research Scholar that must take place in a Lab.

Lab Research Days: the days (and number of days) designated by the Mentor, during which a Rebel Research Scholar will be conducting Lab Research Activities.

Lab Research Hours: the hours (and number of hours) that a Rebel Research Scholar will be expected to, and will, engage in Lab Research Activities.

Mentor: a UM faculty or staff researcher who applies to, is selected to, and provide supervision of one or more Rebel Research Scholars in a Research Experience, possibly with the assistance of one or more Assistant Mentors.

Mentor Team: The Mentor and all Assistant Mentors who will supervise a Rebel Research Scholar in a Research Experience.

Minor: Any non-UM student under the age of 18

Non-Lab Research Hours: The hours spent by a Rebel Research Scholar conducting research Mentor-supervised research activities outside of a Lab.

Non-Lab Research Activities: Research activities required of Rebel Research Scholars by their Mentors that do not require access to the Lab, but that nevertheless advance either the project or the Participant's academic/career development. For example, reviewing scientific literature or preparing reports of research findings for publication.

Non-Lab Research Spaces: Designated physical locations where required, supervised Non-Lab Research Activities will take place. For instance, offices, conference rooms, or common areas.

Participant Cohort: All of the Rebel Research Scholars in a particular summer.

Program Participants: All of the Rebel Research Scholars in a program.

Project: A research project and scope of work, defined by a Mentor, and possibly negotiated with a Rebel Research Scholar, that the Scholar will undertake and complete during a Research Experience, under the Mentor's supervision. Each project will have a pre-defined set of goals, objectives, and outcomes.

Project Description: A Mentor-defined description of a proposed research project that a Participant may undertake and complete. The description will be used to match Applicants with Projects.

Required Research Hours: The anticipated total number of hours that the Mentor estimates will be necessary for the Rebel Research Scholar to spend during the Research Experience to complete the assigned Project. May be estimated as a range that is negotiated/finalized based on the availability of matching Applicants.

Required Research Days: The anticipated total number of days over which the Mentor estimates the Required Research Hours will or can be spread. May be estimated as a range that is negotiated/finalized based on the availability of matching Applicants.

Research Calendar Days: The prospective dates, and ultimately, the final approved list of dates on which the Participants will be expected to participate in Research Activities, and on which the Mentor commits to providing supervision.

Research Calendar: The list of Research Days that a Mentor will designate that a Rebel Research Scholar will spend conducting supervised research during a Research Experience.

Research Days: Days that a Rebel Research Scholar spends doing supervised Research Activities.

Research Environment: The designated combination of Labs and Non-Lab Research spaces where a Rebel Research Scholar's supervised Research Activities will take place under the supervision of his/or Mentor Team.

Research Experience: the collection of activities in which the Rebel Research Scholar will engage

Summer Research Experience: A Research Experience that starts and ends in the same summer.

Research Supervision Plan: The plan describing how the Mentor proposes to provide appropriate guidance, mentorship, and supervision of the Rebel Research Scholar.

UM Pre-College Program: Located in the Division of Outreach, The Office of Pre-College Programs serves to provide programs that challenge, enrich, and further the educational experiences of K-12 students.

UM Dual Credit Program: Located in the Office of Pre-College Programs, the UM Dual Credit Program facilitates student enrollment in UM courses for secondary students seeking UM credit.