

Engaging students in remote research

<u>Please continue to stay updated on guidance for research re-engagement provided by U-M UMOR</u>

Suggestions for Remote Research Mentoring

The transition to remote research has presented many challenges to both researchers and their mentees. Beyond transitioning the research itself to a new format, mentors and mentees have had to consider how to modify the mentoring aspect as well. Colleagues from around the country have pulled together lists of suggestions from their faculty about how to adapt in-person mentoring practices to a virtual format. We've summarized the most common suggestions into the list below. No matter what stage of the mentoring process you are in, we hope this list will be helpful to you as you hone your own remote mentoring practice.

We recognize that traditions of research and mentoring vary widely across disciplines. In order to provide a more inclusive list of suggestions, we want to hear from you! How have you adapted your mentoring practice and/or research for remote undergraduates? Do you have any suggestions we can share? **LET US KNOW HERE!** We'll update this page with your input and share with all UROP Research Mentors

Ideas for Engaging Undergraduates in Remote Research

Looking for ways to involve undergraduates in remote research? Here are some ideas:

- Conduct literature searches and reviews (create/update database, work on citation management skills)
- Remote data gathering/analysis
- Transcribe films, interviews, other materials
- Meta-analysis of existing literature
- Archival research
- Conduct virtual interviews
- Manuscript writing project (collaborate on writing up results of previous experiments)
- Write methodology and/or introduction sections for papers, posters, etc.



- Grant writing project
- Create figures, tables, and/or charts
- Research future trends and/or new product ideas
- Learn new skills like modeling software, drawing software, plotting software, etc.
- Modeling/computational work
- GIS-based project
- Coding projects
- Professional development (CV preparation, grad school prep)
- Identify experimental data that can be modeled using fundamental principles
- Experimental design
- Develop web-based surveys/questionnaires
- Develop videos used for communicating science to a general audience
- Website building
- Podcast development
- Write 'lab manual' of standard operating procedures for new students
- IACUC/IRB protocols
- Create databases

Helpful suggestions for transitioning to remote research mentoring:

- 1. Communicate with your mentees regularly and as clearly as possible in rapidly changing circumstances. This is more important than ever!
 - 1. What are your communication boundaries? How do you plan to communicate with your mentees, how often, individually or in groups? During which hours will you be available?
 - 2. How often do you hope to hear from your mentees?
 - 3. Consider scheduling regular check-in meetings at least once per week.

 Depending on your relationship with your mentees, they might be intimidated or overwhelmed with asking anything of you. It is important for you to reach out and discuss their concerns.
 - 4. Consider asking for written updates due before check-ins (progress reports, summary of key tasks, report on accomplishments, obstacles, questions for discussion). Remind mentees to keep up with lab/research notebooks if applicable.
 - 5. Set up a shared virtual workspace, like Microsoft Teams or Slack or upload to Google Drive electronic data sets, video, and/or take pictures of research tasks



- 2. If you haven't already, review the set of expectations you set at the beginning of the research experience.
 - 1. Revisit the UROP Mentor-Mentee Agreement.
 - 2. Explicitly discuss and consider the challenges both you and your mentees are experiencing and how they affect expectations.
 - 3. Which expectations and/or goals are important to maintain? Which need to be modified? How is your schedule of progress affected?
 - 4. What skills will your mentees need to develop and how will research happen when and if campus is closed to them (revisit mentor-mentee agreement).
 - 5. If you are unable to fully meet the needs of your mentees, who should they check-in with? Reach out to colleagues for help.
- 3. Don't forget to consider your mentee's mental health.
 - 1. Acknowledge that these are uncertain times and that it's normal to feel distress. Provide reassurance at check-ins.
 - 2. Remember that everyone's home environments look different. Your mentees may have different levels of access to technology and may have differing levels of home obligations.
 - 3. Remind your mentees (and yourself) to step away from the computer and the news and include exercise or other self-care activities into their schedules.
 - 4. If your mentees express concerns about health, housing, family, food, technology, etc., be responsive. Think about offices across the University of Michigan who are working with students to address concerns.

The above information was summarized from the following resources:

Cornell University Graduate School

NC State University Office of Undergraduate Research

Northwestern University Searle Center

Some Advice for PhD Students and Their Mentors in the Time of Coronavirus

The University of Tennessee Knoxville Office of Undergraduate Research

University of Colorado Colorado Springs Center for Student Research