A ROADMAP TO UNDERGRADUATE RESEARCH OPPORTUNITIES

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This check sheet contains general guidelines for undergraduate students who are interested in identifying research opportunities. It is intended to promote involvement with research so that students can learn, gain professional experience, develop new skills, and contribute to their chosen field. The items below are meant to introduce students to the many different pathways to finding paid or unpaid research work.

IN YOUR COURSEWORK

- ☐ Complete coursework in theory, statistics, geospatial analysis, qualitative and quantitative research methods, and/or basic computer programming.
- ☐ Determine disciplinary sub-fields (e.g., environmental geography), research themes (e.g., hazards and disasters), and/or research methods (e.g., techniques of qualitative interviewing) that interest you. Not only will these efforts help to expand your knowledge base, they will also bring you into contact with faculty members and graduate students who hold expertise in topical areas that you, too, want to learn more about.
- ☐ Demonstrate initiative, practice ethical behavior, and learn disciplinary skills in class through reading, oral participation, written work, and group projects. Put simply, it is important to show up, work hard, be a good student, and be a good colleague to others.
- ☐ Visit and utilize your university's Writing Center to strengthen and solidify your writing and critical thinking skills.

OUTSIDE OF YOUR COURSEWORK

- ☐ Ask your academic advisor about research opportunities and recommendations for faculty and graduate students working in your field of interest.
- ☐ Review department websites, faculty websites, and faculty research publications to identify projects that interest you. Be open to working outside of your major and immediate interests.
- ☐ Visit faculty office hours and/or schedule meetings with faculty members whose teaching and research you are interested in. Come prepared with specific questions and ideas that showcase you are familiar with their work.
- ☐ Join student organizations related to your fields of interest and become an active member. Peers may know of available opportunities, have faculty recommendations, and can give individualized advice.
- ☐ When possible, participate in a research project with a faculty member or graduate student.
- ☐ If you are eligible and it works for your schedule, consider writing an honors thesis that requires independent research.

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AT YOUR UNIVERSITY

- ☐ Identify research centers and institutes and attend their open houses, lunch talks, and/or seminars.
- ☐ Seek out paid opportunities. Some universities offer summer funding or funding during the academic term to match students with faculty members or graduate students who are seeking research assistance.
- ☐ Many departments require that students complete paid or unpaid internships as part of their degree program. While programs often have lists of organizations or agencies, ask your internship coordinator if they would consider accepting a research-focused internship of your choice.
- ☐ Attend poster sessions and conferences led by your department or university and interact with presenters. For example, speak with poster presenters to learn about faculty mentors and to create opportunities for future collaborations.
- ☐ Attend research talks and/or colloquia presented by various departments.
- ☐ Seek information on potential undergraduate grant opportunities.
- ☐ Some universities host STEM or research-focused workshops or summer programs for high school students; volunteer to assist or mentor.
- ☐ Similarly, some universities host special research-focused workshops for undergraduate and graduate students including graduate school preparatory workshops. Consider attending or otherwise actively contributing.

OUTSIDE OF YOUR UNIVERSITY

- ☐ Explore and apply for research opportunities available to undergraduate students, such as the National Science Foundation (NSF)-funded Research Experiences for Undergraduates (REU) program. Faculty members who have NSF grants can apply for supplemental funding through the REU program, and some sites host students through the REU program. For example, the NSF-supported Natural Hazards Engineering Research Infrastructure (NHERI) REU program has hosted dozens of students at facilities across the United States over the past several years. You can learn more at the NSF site where you can search for opportunities.
- ☐ Research occurs in a variety of settings separate from academic institutions, including community-based organizations and private industry. Search for opportunities to volunteer in your local community or search for part-time paid employment while you are completing your undergraduate degree.
- ☐ Sign up for the listservs of external research groups or professional organizations to receive news on upcoming opportunities. For example, in the hazards and disaster field, the Natural Hazards Center at the University of Colorado Boulder hosts the Disaster Grads list, which posts news of internships, jobs, scholarships, and paid research opportunities for students. You can click here to subscribe.

REMINDERS

- ☐ Be prepared, kind, persistent, and enthusiastic.
- ☐ Ask questions and listen.
- ☐ Read the literature.
- ☐ Set achievable goals and realistic deadlines.
- ☐ Keep an open mind and ask for help when needed.
- ☐ Mentor “up;” actively participate in your mentoring process by tracking progress, asking about expectations, meeting deadlines, and seeking out opportunities for professional development (Lee et al., 2015).

REFERENCE

Lee, S. P., McGee, R., Pfund, C., & Branchaw, J. (2015). Mentoring up: Learning to manage your mentoring relationships. In G. Wright (Eds.), *The mentoring continuum: From graduate school through tenure* (pp. 133-153).

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