

Locating a Research Mentor Guide

Participating in undergraduate research is one the most important and rewarding things that you can undertake during your time in college. Research will obviously prepare you for graduate school, but the benefits are so much more significant. In research, you can develop technical skills that make you more competitive for additional opportunities in school as well as after graduation. In addition, research helps you develop transferable skills, such as critical thinking, problem solving and communication skills, that make you more prepared for anything that you want to do in life. Finally, undergraduate research gives you the opportunity to interact with like-minded people who are both interesting and motivated.

In undergraduate research, you will work with a research mentor, which is a faculty or staff member who provides support to another individual during a research project. "Research" can include scholarly activities and creative endeavors and "mentor" can range from collaborating on a shared project to providing advice on an independent project, where the mentor may help develop techniques specific to their field. Undergraduate research, which includes student-faculty research, requires a research mentor to help in your growth and to navigate the field as a budding scholar in the field.

In many cases, you can find exciting and rewarding research opportunities on your home campus, working with a professor who may even teach in your major. However, each campus is limited with only so many research faculty. Always consider looking for opportunities off-campus because research, creative, and scholarly projects are incredibly diverse. There are people exploring any imaginable topic all over the country and world. Considering looking over the file "Locating Research Opportunities" to learn how to find off-campus experiences. Regardless of whether you pursue undergraduate research on- or off-campus, you can use the following suggestions to find a research mentor who can help you start your scholarly journey.

The following provides detailed instructions for how to identify your interest, find a potential research mentor, and then initiate a discussion. Please use the accompanying checklist (Locating a Research Mentor Checklist) to move through each step of the guide.

Identifying Your Interests

When seeking a research mentor, it is important to consider your interests. Although you may be willing to participate in any research project, it is important to have an idea of what you would like to work on since the experience will require many hours of self-motivation to learn about the topic(s) and complete the work. Plus, you'll want to do your best to find an experience that will hopefully inform your next steps in research or career. Pursuing your interests from the start will serve you well in the long run.

Step 1: Questions to answer when considering your interests.

Write out the answers to these questions and then move to the next step.

- 1. Have there been inspiring topics from the courses you have taken?
- 2. What do you find yourself doing or reading about when you have 30 minutes to 1 hour of free time? Are there specific topics you gravitate towards?
- 3. Are there potential careers you would like to explore? What are possible fields of study that connect with those careers?



4. Do you have a personal connection to specific fields of interest that you have always wanted to make a difference? For example, students who have a family history of cancer have personal connections to cancer research projects.

Step 2: Activities to narrow your answers.

- Conduct basic internet searches for the various topics you described above.
 - a. Filter out topics (for now) if they do not keep you engaged.
- Ask yourself:
 - a. Can interests be merged or combined?
 - i. At this stage of your career, you want to think about large, broad topics. You will become increasingly specialized in time. However, it can be valuable to think about how diverse interests can interconnect.
 - b. Do you have future interests that one type of project would benefit you?
 - i. Participation in undergraduate research can help you develop a professional "tool kit" that you can employ in different ways through your research and career. Are there certain skills that you want to add to your tool kit?
- Talk with:
 - a. A professor during office hours even if it is not in their area of interest about your interest in research.
 - b. Meet with a university or research librarian. Librarians are a valuable resource at many stages of research. For example, campus librarians can help you conduct the initial internet search, combine and merge interests, and then search the university website.
 - c. Contact your career services department about future possibilities and then consider what research skills and interests you can develop before you graduate.
 - d. Your academic/faculty advisor for their input.
 - e. Importantly, all of these individuals may know of professors you can ask.

Online Resources to Locate a Mentor

Reminder: Online resources are tools to assist you find possible research mentors. These resources should be completed alongside in-person discussions and self-reflection.

Internet search engines

- If you're not sure where to begin in terms of locating a mentor, exploring your research area and your institution using your favorite internet browser is a great place to start.
- University Website
 - Search for "[Your institution's name] [insert research interest area]"
 - Update research area keywords with synonyms and other areas that interest you
 - You can locate synonyms or other field-specific vocabulary on Wikipedia, for example.
 - This resource helps to find news articles, faculty biographies with these areas, and courses that are relevant to your interests and who teaches them.
 - Replace your institution's name with "undergraduate" and add "summer" for global results for summer research
- Google Scholar



- Another great option is searching for information using Google Scholar, as Google Scholar contains citations and articles written by scholars.
 - To locate research published by researchers at your institution, navigate to <u>Google Scholar</u> and type "'[Your institution's name]' [insert research interest area]"
 - Locate articles that are published by individuals at your institution, thus the quotations around your institution's name, in the areas you are interested in.
 - Update the research area keywords with synonyms and other interests like above.
 - Sort the publications for the most recent first and focus on the last 10 years of publications.
 - This can help you locate multiple individuals who are co-authors on the same papers.

Department and center websites

- If you tried internet search but are hoping for a more concrete listing faculty members, department and center websites are a great first place to look.
 - Departmental and research center sites can help you locate what research is conducted by faculty members.
 - However, the information posted on these websites can vary greatly. Sometimes these websites may only contain a list of faculty names or may include more information, such as biographies or faculty curriculum vitaes (CVs), which often contain information regarding their research interests and publications.
- In addition to department and center websites, some faculty have their own websites.
 - Remember that information may be outdated.
- Note: If your institution has research centers, these can provide great interdisciplinary research opportunities where faculty collaborate with others across campus. For example, a center of social justice may support a project that connects an economist, sociologist, and psychologist. If you are a psychology major, then this project would help you learn more about sociology and economics in addition to the great exposure into psychology.

Library resources

- Using your library's resources, you can search published works such as articles or books by research area or faculty member. While you may not be able to understand everything in the book or article, as scholarly research is written by experts for experts, it should give you a feel for the type of work the faculty is doing and if it seems interesting to you.
- Many libraries have a main search box that will search a variety of their databases at once. If your library has this feature, you can do an author search by selecting author as the refiner and then typing your faculty member's name:
 - "Last name, First name" -- select author
- Similarly, you can place the title of an article or book in quotes and select title as the refiner to locate a specific publication:
 - "Article of book title" -- select title



- If your library does not have a main search box for their collection, you can try searching in a similar way in a subject database, such as Web of Science.
 - If you have questions regarding the search process, you should consider reaching out to a librarian at your institution, as they can help you practice effective search strategies, locate appropriate general and subject databases, and access full text articles.

Academic social networking sites

- Over the past few years, there has been a sharp increase in the utilization of academic social networking sites, such as ResearchGate, Academia.edu, Zotero
- You can connect with those conducting research in a particular field
 O Sometimes researchers upload full papers of projects you can read
- These sites require personal updating by the author and could be the most up-to-date or the most out-of-date depending on the faculty member.

Institutional job board

If your college or university has a job board, it may include research positions that you can pursue. When reviewing these positions, ensure you look at the responsibilities to tell if you are helping with common actions such as washing dishes or if it is a research assistant position. Washing dishes and constructing products can be a good way to connect with research mentors, but remember to have the end goal in mind. You, ultimately, want to participate in the more interesting aspects of research, including study design, data collection and analysis, and interpretation and dissemination.

Connecting with Potential Research Mentors

Depending on your institution, faculty have many roles that may affect their ability to take on undergraduate research mentees. However, how you approach faculty is typically similar across colleges and universities.

Always be:

- Respectful
- Polite

- Concise
- Thoughtful

Do Your Research First

You are not expected to be an expert in the field of the faculty member that you will want to connect with. However, you will be expected to know what they are working on and why you want to work with them if you expect to be taken seriously.

- Read the abstracts from most recent publications
- Skim the full-papers of recent publications
- Review their various websites they may have
- If they have current student researchers, ask them questions about the work they do



Emails

Although faculty receive many emails throughout the day from students in class, administrative responsibilities, and current researchers, emails are an easy way to connect with a potential research mentor. However, it is important to remember that emails can be your first professional first impression and to remember to be concise and thoughtful.

- Use an informative, yet concise, subject title. Do not use general subjects such as "Research Inquiry"
- Introduce yourself. If you have a connection to them from a class or a friend include this in your introduction. You should also include specifically that you are interested in their research as a potential project for you to pursue. (1-2 sentences)
- Demonstrate you have done research on them. Use specific language from their research area. If you could copy and paste the same language to another faculty member, it is too general. (1-2 sentences)
- "Show" passion. Tell them why your research area interests you and what you could bring in regards to skills, experiences, and techniques to the research project. (2-4 sentences)
- Reference a resumé or curriculum vita. As you address your experiences, you can state "In my attached resumé, you will find..." to guide them to open your document.
- Recommend times to meet. If you know the faculty member's office hours, use those if you are free during those times. If you are not, provide general times you are mostly free (e.g., Tuesday and Thursday afternoons). Please provide multiple times and dates. Potential research mentors can be very busy. They will appreciate the consideration.
- Close with your contact information. Thank them for their time and close with your contact information.

With many emails coming in at a time, a faculty member may miss your email. It is acceptable to follow-up with your initial email after 2 weeks have passed. In your follow-up email, you should reiterate in different words your interest in their research area. If they have graduate students or undergraduate researchers, state that you would be interested in meeting with them first to get an idea of their research area and how individuals get involved in their research.

Appointments

Preparation

If you do establish a time via email or if it is common to have "walk in" appointments without an email, treat the appointment as an interview. This means to come prepared to make a good impression and to ensure they understand your interests and your skills. You should have strong answers to:

- Why do you want to do research?
- What excites you about the work/field?
- What availability do you have?

The Appointment

Purpose: Get to know their research and expectations - NOT to secure a research position.



- This is the time for both of you to determine if the research area and personalities would be a good fit. If it is not a good fit, that is okay.
- Focus on the conversation of getting to know them and them getting to know you
- They can now be considered part of your network and could connect you with others
 - Inquire if other professors are doing similar work or are their collaborators
- Keep in mind the time!
 - This appointment is to discuss their areas of interest they have spent potentially decades studying. They could talk through the entire appointment discussing the research area, but it is important that you are able to get into the conversation and discuss your interests and skills.
- If they offer you the position, thank them for their offer and ask to take at least a day to consider the offer. If you feel a strong connection with the individual, you may accept the offer, but it is not required.

Virtual Appointments

If your appointment is over the phone or over the internet, you should consider these items:

- One person has been designated the initiator of the meeting
- You have strong service so that the appointment is not dropped
- You both have the contact information (phone number, Skype name, etc.) to call back if you are disconnected
- You have practiced using the format with a friend to ensure the quality is clear and the background is okay with you for internet meetings

Following up

Follow-up with an appreciative email for their time. Consider this email as a continuation of the relationship building process. If there were items you two connected on or if there were questions you could not answer, address them. If they offered help or resources, show your appreciation and thank them for the support.

If they offered you a position during the appointment, be sure to follow-up with an affirmative or denial within the timeframe given but no more than a week later.