

## Unit 1 Research Experience Application

This unit is designed to introduce you to the institutions that support science and basic conventions of science writing. By writing a flexible proposal for your future research meant for an audience of professionals and experts, you can begin shaping the narrative of your own intellectual development. Working through this unit will help you determine a research subject to explore for the semester.

### RHETORICAL SITUATION CHART

Genre	Purpose	Audience	Role	Rhetorical Situation
NSF Research Experiences for Undergraduate (REU) application	Convince an academic researcher to mentor you by introducing yourself, your scientific interests, and your research goals in a clear, engaging manner.	University-affiliated academic research scientists.	Undergraduate student and future scientist.	You want to gain more scientific research experience by finding a mentor and team with whom to work.

### YOUR ROLE

Academic research laboratories often apply to the [National Science Foundation](#) for “[Research Experiences for Undergraduates](#)” or REU funding in order to develop programs meant to help undergraduate students begin their careers as research scientists. Once they have received REU funding, these labs create programs to help undergraduate students conduct independent research, present at professional conferences, and collaborate with graduate, postdoc, and faculty researchers. As an undergraduate student just beginning your studies in natural sciences, you want to learn more about becoming a scientist by applying to an REU opportunity. You will [choose one from the current list of REU sites](#) to apply to in class and then develop materials for sending out an application.

In order to be considered for any REU program, you typically need three types of documents: (1) a profile of your scientific interests and research goals; (2) a curriculum vita or résumé; and (3) letters of recommendation. For this unit, we will prepare “master” copies of the profile and CV/résumé, which you can expand on, revise, and adapt to multiple applications, in addition to finding UNC mentors who can provide you with the letters you will need for these applications.

The challenge is to not only present a compelling portrait of your academic and professional capabilities, but also to lay the foundation of the mentorship relationships that will enrich your course of study and your intellectual development. If you continue forward with graduate-level work in the natural sciences, you may find yourself applying to the [NSF Graduate Research Fellowships Program](#), which requires a very professional narrative profile.

### FEEDER 1: REACH OUT TO A MENTOR AT UNC

Before you can send out letters of recommendation, you need to find mentors who will advocate for your abilities and accomplishments as a scholar. The ultimate goal of this feeder is relatively simple: to compose an impactful, concise, and professional introductory email to a faculty member here at UNC with whom you can begin a mentorship relationship. The specific outcome you should aim for is a meeting with this mentor.

To compose the email, however, you will need to complete a significant amount of early research both in a field that interests you and the faculty researchers who work in that field here at UNC. Doing such research helps substantiate the reason you want to meet. Your goal is to emphasize your dedication to the field and your maturity.

A successful email will:

- Provide a basic introduction (your year, major, research experience, career goals).

- Identify the research interests and goals that align with your mentor’s shared intellectual interests.
- Clearly make a specific request that explains why you are reaching out to the mentor.
- Adopt a professional and cordial tone.
- Concisely persuade the mentor to meet with you in 200-350 words.

## **FEEDER 2: MASTERING THE CURRICULUM VITA and RÉSUMÉ**

For the next part of our application, we will create master curriculum vitae and résumé that you can use to apply for research opportunities, internships, or jobs related to your intellectual interests. We will discuss what the differences between CVs and résumés in class; why you need to create both master and targeted CVs/résumés; and why it is important to keep developing up-to-date “master” CVs/résumés well beyond the classroom. For our purposes, you must submit both a master CV and a master résumé as your final product.

Successful CVs and résumés will:

- Include your current contact information.
- Follow clear organization (i.e. chronological or a functional “skills” format).
- Focus on your accomplishments and measurable achievements.
- Tell a narrative about your intellectual interests and development as a scholar.
- Convey impactful ideas through the use of strong verbs and descriptors.
- Avoid surface errors. (In the “real world,” misspellings get your materials “filed” in the trash.)
- Remain clear and easy to read. No **weird fonts** or **GRAPHICS**, and no formatting errors or inconsistencies!

## **UNIT PROJECT: REU APPLICATION PROFILE**

After having established a relationship with a mentor who can write you a letter of recommendation and completing a master CV or résumé, you need to write up the last piece of the REU application: a profile in the form of a personal statement containing information about your research interests and goals. You should have already picked one of the [pre-existing REUs offered on the NSF list](#) to direct your application to.

REU application profiles vary exceedingly. For example, some REUs ask you to send one page about yourself, some ask you to write a paragraph per specific question they want you to address, and some ask for a combination of an essay and then answers to several short answer questions. **For the sake of consistency in the classroom, I would like for you all to write 600-750 word profiles in an essayistic form similar to the [NSF Graduate Research Fellowship Program format](#).** There are [several excellent samples of these types of personal statements, which have been aggregated for your benefit online](#). Additionally, I have selected samples for you to look at in our Sakai Resources folder for Unit 1. You should write professionally, imagining that a committee of the researchers in the lab or institution you are applying to will be the individuals reading your profile.

A successful profile will:

- Concisely introduce your background and qualifications for becoming a researcher at the REU program (as an undergraduate student majoring in \_\_\_\_\_ at UNC, with interests in studying \_\_\_\_\_, etc.).
- Clearly define the specific research subject you are interested in pursuing.
- Show you have background knowledgeable about the subject by articulating the contexts (and possible debates) surrounding this research.
- Address your experience and skill base to emphasize ability to meet REU’s needs.
- Articulate your short and long-term goals for pursuing research in this subject.
- Persuasively argue how the specific REU will help you reach your goals.
- Present examples of how you could contribute as a colleague and researcher for the specific REU given past experiences.
- Adopt an engaging professional tone directed towards future mentors.
- Be free of grammatical and mechanical errors.