

Name: _____ Semester: Fall/Spring 20_____

Undergraduate research is a unique experience in most students' college coursework. Every student's experience is different, and different students have different expectations and goals for their experience. Based on your goals, select how much of your grade you want to be determined by each of the components listed below, staying within the percentage guidelines given for each criterion. The total should add up to 100%. You should make your decision by the end of the first week of research and submit a signed photocopy/scanned copy of your choices to me.

_____ **Research Effort (20-40%)**

Time spent in the lab doing experiments, preparing reagents, collecting and analyzing data, etc. **and** the responsibility with which these activities are conducted. An "A" will require ≥ 5 hours in lab per 0.5 credit units during the times specified above every week all semester and will respect lab resources, by using equipment as directed and cleaning up after all experiments.

_____ **Research Productivity (20-40%)**

Actual data produced. This is a measure of what you have accomplished irrespective of the time spent. An "A" will require you to produce at least one figure of data under optimized conditions with multiple samples per data point.

_____ **Research Paper (0-25%)** *Students completing a senior thesis **must** count this for 25% in spring*

An "A" will require timely drafts, responsiveness to comments, and a well-written and edited manuscript with publication quality figures and text in keeping with the Guidelines for Authors of *Analytical Chemistry*.

_____ **Lab Notebook (10-15%)**

A record of your plans, methods, and results. An "A" requires an up-to-date notebook at all times, in legible ink, with numbered pages, useful headings, accurate and complete information, including all raw data, file names and electronic data locations, safety measures, conclusions, and a table of contents. An "A" also requires that you respond to my comments in the lab notebook and update the record accordingly.

_____ **Lab Meeting (5-10%)**

Regular check-ins with me and your lab mates about your work. An "A" requires that you do not miss any weekly meetings and participate in journal article discussions and other activities during meetings.

_____ **Research Presentation (5-20%)**

Students completing a senior thesis must present their work to the department and count this for at least 10% Typically all students present their research at the department's Friday seminar once per semester. You may also present your work either orally or as a poster at a local or regional conference, such as Trinity's all-college science symposium or an ACS meeting. An "A" requires at least one practice presentation, a polished final presentation, and demonstrated ability to answer questions thoughtfully.

_____ **Annotated Bibliography (0-10%)**

Peer-reviewed articles are presented with 3-4 sentences summaries describing the papers' contributions and relevance to the student's work. An "A" requires at least 5 references properly formatted with concise but thorough summaries. Students taking subsequent semesters of research for credit must find 5 new references.

Double-check that the total is 100%!

I agree to the choices I have made above. I understand that my grade will be determined as I have specified based on my research advisor's evaluation of these research components.

Signature: _____ Date: _____