

Kinsman-Costello Lab *Undergraduate Individual Investigation Expectations*

Individual Investigation is way for you to formally earn course credit for an authentic, independent research experience. The nature of your research experience will be tailored to meet your time commitment (i.e., number of credits enrolled), your experience, your research interests, and your ultimate career goals. The activities and ultimate outcome of your Individual Investigation course will be agreed upon and documented using the appropriate form available through the KSU BSCI website (<https://www.kent.edu/biology/internships-and-research-opportunities>).

Graded outcomes at the end of each semester can include, but are not limited to:

- Lab notebooks and/or field notes
- A written reflection reviewing the literature that you have read as it pertains to your research question
- A formal poster presentation at a local, regional, or national scientific meeting (for example, the KSU Undergraduate Research Symposium)
- A research report that may ultimately lead to a peer-reviewed published paper

Ideally, students become involved in the lab early (i.e., as a freshman or sophomore) as a volunteer, then transition into an Individual Investigation student role, and may enroll in Individual Investigation credits over multiple semesters and years. The more time and semesters that you can invest in lab research, the more substantive the outcome of your research will be. Your individual goals as they relate to this experience may vary depending on your career goals. If, for example, you ultimately would like to go to graduate school for research, I recommend completing at least two semesters of Individual Investigation. Formal scientific presentations are one of the most valuable kinds of evidence of your independent research experience, and at least two semesters of research gives you a good chance of completing a full presentation-worthy project (but does not guarantee it). Science can take a long time, and there are often barriers to work through that are a valuable part of developing your skills as a researcher, but can slow down progress in collecting data.

Time Commitment

You may enroll in 1-3 credit hours per term, and your time commitment, project scope, and expectations will be commensurate with the number of credit hours you are enrolled in. I ask that individual investigation students commit **on average a minimum of 3 hours per week** if enrolled in 1 credit. For students enrolled in 2 credits, the time commitment is approximately 5-6 hours per week, and 3 credits is approximately 7.5-9 hours/week. These time commitments are averages. There may be weeks when you do minimal work on your independent research, and other very intensive weeks in which more than the average amount of time is committed.

Per the KSU curriculum guidelines (<http://provostdata.kent.edu/roadmapweb/06/curriculum-guidelines.pdf>), one credit hour means “a minimum of 750 minutes of formalized instruction that typically requires students to work at out-of-class assignments an average of twice the amount of time as the amount of formalized instruction (1,500 minutes).” This means that for every credit hour during a semester, you are committing to approximately 2,250 minutes of work. In a 15 week semester, this averages to about 2.5 hours per week per credit hour.

Individual Investigation Weekly Logs

If you are an undergraduate doing an individual investigation with me, upload weekly logs using [this google form](#) in which you document:

- 1) what you accomplished in the previous week (including a rough estimate of the time you spent on each task)
- 2) challenges you encountered during the previous week (and how you plan to overcome them in the future)
- 3) what your goals are for the following week (including when you plan to be in the lab), and

4) more general notes about how your work is progressing, if you thoughts regarding your hypotheses or you understanding of the system your studying has changed, etc.

Weekly Logs should not take you more than 20 minutes each week. The goals and accomplishments include not only lab and field activities, but also any papers that you've read, documents that you've written, or presentations that you gave. Any part of the scientific process of your project.

Part of your semester grade will be based on completion of weekly logs

Communication

I expect you to check your email most working days and respond to emails within 24-48 hours, and you can expect roughly the same from me. If travel, vacations, field work, or other activities prevent you from responding to emails within this time frame, I will expect you to put an "out-of-office" type automatic response in your email. During the work day and field trips, I sometimes will use text to quickly communicate. Please only use text messages for quick, necessary communications, and avoid contacting me via text during non-business hours unless absolutely necessary. We also use the free Slack app (workspace kinsmancostelloab.slack.com) to coordinate lab activities, you will be expected to create an account via Slack and use this for more rapid communication among lab members.

Please read and understand everything in the Kinsman-Costello Lab Policies & Procedures document. An up-to-date version will be provided to you.

How to get the most out of your experience

- If you are available, attend weekly Kinsman/Costello Lab meetings. We schedule weekly lab meetings to ensure that all graduate students can attend, which means that your schedule may prevent you from participating. However, if you're available, we welcome and encourage undergraduates to attend and participate in lab meetings. These are a great opportunity to become more involved in the Kinsman-Costello and Costello labs, and see where your individual research projects fits in to the broader scope of our work.
- Talk to other lab members. If there are more senior lab members in the lab at the same time as you, ask them what their research is about, and what they're working on at the moment.
- Talk to Dr. Kinsman-Costello. I may not be able to meet with you every week, but I'm always available within at least two weeks if you schedule a meeting OR sign up for a 30 minute slot during my weekly "lab office hours." I'm happy to discuss your Individual Investigation research project progress, your general career and professional development goals, and broader scientific topics. If you want more information about something that we're doing in the lab, or a broader issue that you've learned about, ask if I (or another member of the lab) can provide you with some readings.