Doing Biology Research in an NIU Professor's Research Lab for Credit (Bios 495)

How big of a time commitment is it?

Roughly 3 hours per week of work for each hour of credit in fall or spring semesters (twice as many hours per credit in summer because half as many weeks in the summer semester).

When can I start?

There is no rule about this. Most students taking research credits are seniors. Some start as juniors because by then they have a solid background through coursework. (Students with a high enough Bios GPA to graduate with departmental honors (≥ 3.5) need at least three semesters to get the required seven credits minimum to graduate with Bios honors.)

How do I pick a professor to work with?

There is currently no list of professors with openings.

Check out <u>professors and their research</u> for more complete information on their research and for their contact information. The research does not have to be in the exact field that you plan a career in. The general process of doing science is what matters. For example, the first undergraduate research that I did was on leaf decomposition, but now I work on insect behavior. I chose the professor because he had a good reputation in research and in working with students. I learned general principles of experimental design, analysis, interpretation, literature search and scientific writing.

How do I contact a professor?

Email them an unofficial copy of your college transcripts. Say that you are interested in working in their lab for undergraduate research credits. Ask if they might have room in their lab that semester for you; ask for an appointment to meet with them. Include one or two sentences as to what career or area of biology interests you. If you do not hear from the professor in about a week, you may want to stop by their office to follow up. Professors are not required to let undergraduates participate in their research; they do it because they enjoy working with students that are motivated, perseverant, and hard working. This is important because training a student can be a big commitment of the professor's time and sometimes research money.

When you meet in person, you will want to ask things like, "What sort of research would you have me working on? Will I have set hours? How will I be evaluated?" If you have not met them before, try to get a sense of whether their personality will work well with yours. (You can also get some sense of this if you have had them as a professor and from talking to other students.) If working with them suits both you and the professor, have the professor sign a research-course permit. Decide with the professor whether to take one, two or three credits for the semester (depending on your needs and what project the professor has for you). If one professor does not have space or you cannot reach them, ask another. However, recognize that there are not enough professors for every student to take some research credits, and it is not a reflection on you if you cannot find a lab.

How do I get signed up with the necessary "Consent of Department"?

Put the following "form" of 6 fill-in-the-blanks pieces of information in an email, fill in the first 5 fill-in-the-blanks. Then send that email to the professor who has agreed for you to work in their lab, asking the professor to 1) fill out the last fill-in-the blank and then to 2) forward the email to Lori at ljudkins@niu.edu (i.e., to the BIOS main office). By the email coming from the professor and you, Lori has both your consents to sign you up in myNIU.

Student name & ZID: _			<u> </u>			•	
# of credits:	0	f Bios 495 (student and pro	ofessor talk about	and decide on	number o	f credits)
Semester-year:		_	_				
Are the credits H credits	s?						

•	The answer is yes if you know that you are in the University Honors program. (You would know if you
	were.) Otherwise, the answer is no.
• Fa	culty member that you will be working with:
• NI	IU IBC, IACUC or Radiation authorizations numbers or "none":

How many total credits of research can I do?

The maximum credits toward the bio major for BIOS 490 and 495 combined is 12, with no more than 3 of those being from BIOS 490. (Bios 490 is for doing an internship not at NIU but where you have arranged to get credit by talking to the director of undergraduate studies, Dr. Shengde Zhou.)

To graduate with Departmental Honors in BIOS:

Note that at NIU, <u>University Honors</u> and Departmental Honors are two separate things, but your Departmental Honors research project may double as a University Honors capstone project.

- 1) Complete at least 7 BIOS research credits (BIOS 495, or used to also be called BIOS 499 or BIOS 370).
- 2) Maintain a cumulative BiosGPA of at least 3.5 through graduation. Your BiosGPA is on your Academic Requirements report on MyNIU, under the tab labeled "GPA in Plan". Or you can compute your BiosGPA by including only BIOS courses, using an online GPA calculator, e.g., https://www.calculator.net/gpa-calculator.html
- 3) Present and explain the results of the honors project, e.g., at <u>NIU's Conference on Undergraduate Research and</u> Engagement, which is in the spring.
- 4) At the end of your last semester, turn in a senior thesis on your research. The thesis should be in the format of a scientific paper and have the bio honors cover sheet (email bking@niu.edu for a copy); but otherwise, the format, length, etc., is up to your research advisor (the faculty member you did research with). A pdf of the thesis should be emailed to Professor Bethia King at bking@niu.edu, either through your research advisor or with an email from your research advisor indicating s/he approved the thesis. Alternatively, your research advisor can sign a paper copy of the filled-in cover sheet, and you can scan that and use that as the first page of the PDF that you email to bking@niu.edu

In the second to last semester before you graduate, or before, email Professor Bethia King bking@niu.edu:

- 1) *the semester-year in which you anticipate graduating. This lets the Bios Department know to have your name added to the "Departmental Honors" part of the Bios Annual Award Ceremony program, which is typically on the last Thursday of April at 330-5 pm in MOAUD. At the spring 20xx ceremony, those graduating fall 20xx-1, spring 20xx & summer 20xx will be recognized.
- 2) an unofficial copy of your transcript to demonstrate that you have the necessary <u>BiosGPA</u> of at least 3.5, (b) the name of the faculty member under whom you are doing research,
- 3) the date, conference, and place at which you presented and explained the results of your research (or will be doing so), e.g., at NIU's CURE (Conference on Undergraduate Research and Engagement)

Undergraduate research opportunities that provide stipends

NIU tends to include these sorts of opportunities under "Engaged learning" and "Experiential learning":

Any questions? Ask Professor Bethia King (pronounced BETH' ee uh), MO 446, bking@niu.edu.

Last revised: 10 March 2025 by bking@niu.edu