Participating in Research in an NIU Biology Professor‘s Lab

**requires at least 3.0 bioGPA**

What is a “bioGPA”?  
Your GPA in BIOS courses plus courses required for the BIOS major (CHEM 210, 211, 212, 213, 330 or 336, 331 or 337; MATH 229, 230 or MATH 211, STAT301; PHYS 210 and 211 or 253 and 273)

How big of a time commitment is it?  
Roughly 3 hours per week of work for each hour of credit.

Why should I consider doing research as an undergraduate?  
1) Being involved in actual research is the best way to learn the process of science. 2) It helps you evaluate whether a career involving research is right for you. 3) You may have a chance to interact with graduate students, which can help you decide if graduate school would be right for you. 4) At least some research experience is highly recommended for students in their 3rd and 4th years who plan to pursue a research-related degree in science, e.g., a PhD. 5) By working more closely with a professor than is usually possible in a classroom setting, you have someone who can write a meaningful letter of recommendation for you for graduate school, professional school, scholarships, internships and jobs.

When can I start?  
Most students start their junior year; by then they have a solid coursework background.

How do I pick a professor to work with?  
There is no list of professors with openings. Professors, their research and email addresses can be found at [http://www.bios.niu.edu/undergraduate_studies/ugrad_research_labs.shtml](http://www.bios.niu.edu/undergraduate_studies/ugrad_research_labs.shtml), or more complete information at [http://www.bios.niu.edu/faculty_staff/index.shtml](http://www.bios.niu.edu/faculty_staff/index.shtml)  
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 animal 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, stop by their office to follow up. Professors aren’t 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 haven’t 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’ve had them as a professor and from talking to other students.)  
If your working with them suits both you and the professor, have the professor sign a course permit. Decide with him/her whether to take 1, 2 or 3 credits (depends on your needs and what project the professor has for you). If one professor doesn’t have space or you cannot reach them, ask another.

Where do I get the necessary course permit?  
from the biology main office, MO 349. It will need to be signed by the professor that you will be working with and then taken back to the main office. The first semester of research, everyone signs up under BIOS370. After that, see next page.
What are the requirements for graduating with **Departmental Honors in BIOS**?

**Departmental Honors is separate from University Honors.**

Doing lower level (your 1st two years) in university honors allows you to sign up earlier for classes, thus increasing the odds of getting into classes that fill quickly. Whereas departmental honors focuses more strictly on research experience in science, upper level university honors is more about traditional courses, less tied to your major, and emphasizes civic engagement, although it can also include a smaller research experience. Your Departmental Honors research project may double as the university honors capstone project that is part of upper level university honors. For information on University Honors got to [http://www.niu.edu/honors/](http://www.niu.edu/honors/).

**To graduate with Departmental Honors in BIOS:**
1. Complete at least 1 credit of BIOS370.
2. Preferably prior to signing up for your 2nd semester of research, email an unofficial copy of your transcript to Dr. B. King [bking@niu.edu](mailto:bking@niu.edu) to demonstrate that you have the necessary bioGPA of at least 3.5, along with the name of the faculty member under whom you will be engaging in research.
3. Complete 6 additional credits (usually 2 semesters) – typically as BIOS495 or BIOS499.
4. Maintain a cumulative bioGPA of at least 3.5 from your 2nd semester of research through graduation.
5. Present and explain the results of the honors project at either the departmental Phi-Sigma Research Symposium or University Undergraduate Research and Artistry Day.
6. At the end of your last semester, turn in a senior thesis on your research, which will be written in consultation with your research advisor (the faculty member you did research with). A copy should be emailed to [bking@niu.edu](mailto:bking@niu.edu) through your advisor to indicate your research advisor’s approval or printed and signed by your research advisor and given to the honors advisor, Dr. B. King, MO446.

**Doing more than one semester of research: what course number do I sign up under and how many credits total can I do?**

The maximum credits toward the bio major for BIOS 370, 490, 499, 495 combined is 6, except students admitted to departmental honors in biology may take up to 9.

What course you sign up for after 1 semester of BIOS 370, depends on whether you have been admitted into our biology Departmental Honors program and whether you are officially in [NIU’s University Honors program](http://www.niu.edu/honors/):  
1. **If you are in NIU’s University Honors program**, regardless of whether you are in the Departmental Honors program, take BIOS499 because it is automatically a University Honors class. The permit requires signatures both from the faculty member in whose lab you will be working and from the University Honors Program.  
2. **If you are in just the Departmental Honors program and not the University Honors program**, take BIOS495. The permit requires signatures both from the faculty member in whose lab you will be working and from Dr. B. King.  
3. **If you are in neither the University Honors nor the Departmental Honors program**, take BIOS370.

**Undergraduate research opportunities that provide stipends**

NIU has some programs and links at [http://www.niu.edu/engagedlearning/research/](http://www.niu.edu/engagedlearning/research/) (or Google niu undergraduate research) Note NIU tends to include these sorts of opportunities under “Engaged learning” and “Experiential learning”

**Any questions?** See [http://www.bios.niu.edu/advising/bking.shtml](http://www.bios.niu.edu/advising/bking.shtml) or Dr. Bethia King, MO 446, 753-8460, [bking@niu.edu](mailto:bking@niu.edu)