

Biology Registration Newsletter: Fall Semester 2009
Spring 2009 REGISTRATION PERIOD:
March 31st – April 10th

I. Registration **NEWS and UPDATES:**

- A. Registration for Fall 2009 will now occur through PAWS, so be sure you have practiced using PAWS before registration begins!
- B. Dr. Norvell's advisees: Dr. Norvell is on sabbatical this year (08-09). If you have not chosen a temporary advisor yet, please contact the main office in Biology and you will be assigned one.
- C. **All biology majors** – information on courses:
 - a. **One new course** will be offered in the fall under the Topics in Biology heading (BIO 470 sections A and A01), *Plant Biotechnology and Genetic Engineering*, offered by Dr. Thornton. Please note: this course requires BIO 231 (Genetics) as a prerequisite. A description is listed in "Notes to Individual Courses" section below.
 - b. Two to three new courses are likely to be taught next spring, with the arrival of our newly hired faculty members, so be sure to look at the Newsletter next fall for descriptions of those courses.
 - c. Please note that the organismal biology option requirement is *in addition to* the four biology option requirements listed on the Program Planner. Therefore, all BIOA students must take a total of FIVE biology options, at least one of which must be an organismal biology option.
- D. **All biology majors** – additional information
 - a. NO LABORATORY COURSES IN CHEMISTRY OR PHYSICS CAN ACCOMMODATE MORE THAN 24 STUDENTS. Therefore, do not ask to be signed into one of those courses over the cap. However, if you wish to take a chemistry or physics course that is full, you can go to the main office of chemistry or physics, and put your name on a wait list. This information will help them decide whether they are able to open additional sections.
 - b. For biology courses that are zero-capped on TESS, a wait list will be maintained in the biology main office. *Note:* priority will be given to students on the wait list who could not register for *any* other biology course during their assigned registration window (and this can easily be checked).
 - c. For any other biology course you are hoping to register for but cannot, please first speak to the professor teaching the course, or to Dr. O'Connell if the instructor is STAFF.
 - d. For any biology major interested in traveling abroad, be sure to contact the Office of Global Programs, and speak to your advisor, LONG before you wish to travel abroad.

Remember: it is ultimately each student's responsibility to monitor his or her progress toward graduation, so USE THE WEB!!!!!! There are all sorts of excellent resources at YOUR disposal on the web, so be sure to get yourself completely informed before seeing your advisor. In particular, the liberal learning site which can be found at <http://www.tcnj.edu/~liberal>.

II. See your advisor: **NOTE: an academic service indicator (formerly called a registration hold) has been placed on all biology majors and you must meet with your advisor to have it removed.**

A. **Bring the following with you when you meet with your advisor**

- Fall 2009 class choices – be sure to create tentative schedules, which you can now do in PAWS through the shopping cart feature.
- Your Program Planner, available on the Records and Registration web page: <http://www.tcnj.edu/~recreg/programplanners>.
- Any questions about your coursework and future plans

B. Advisor assignments – are available through TESS, and on PAWS. There is also an updated list in the Main Office of the Biology Department (If you wish to change advisors see Dr. O’Connell).

- ECBI and ELBI majors are to meet with Dr. Klug. *ELBI and ECBI majors must meet with both their biology and education advisors in order to complete registration.*
- Students registering for Independent Research (BIO 493) must do so in person at Records and Registration after filling out the appropriate form, with appropriate signatures.
- College-wide Honors students are to see Dr. Fangboner.
- For those interested in Biology Departmental Honors see Dr. Fangboner, BI 117.
- Students registering for Internship (BIO 399) are to see Dr. Klug, BI 239.

III. When to register

- A. Course Registration is based on EARNED CREDIT HOURS. Transfer students should check under ‘Transfer Credit’ to verify that official transcripts have been received by the college.
- B. The registration windows are posted on the Records and Registration web page.

IV. What to register for

A. Biology major courses offered **Fall 2009** (*courses fulfill the organismal requirement)

BIO 185	Themes in Biology
BIO 211	Biology of the Eukaryotic Cell
BIO 221	Ecology and Field Biology
BIO 231	Genetics
BIO 312*	Microbiology
BIO 315*	Plants and People
BIO 343*	Entomology
BIO 352	Biometry (biostatistics)
BIO 399	Biology Internship
BIO 470	Topics in Biology – Plant Biotechnology and Genetic Engineering
BIO 480	Neurobiology
BIO 493	Independent Research
BIO 49801	Biological Seminar – Topics in Developmental Genetics
02	Biological Seminar – TBA
03	Biological Seminar – Topics in Neuroscience

B. A subset of the biology options *likely* (not guaranteed) to be taught in **Spring 2010**

BIO 311	Laboratory Techniques in Biotechnology
BIO 342*	Biology of the Invertebrates
BIO 370	Oceanography
BIO 413	Microscopic Anatomy and Technique
BIO 444	Molecular Immunology
BIO 451	Developmental Biology
BIO 461	Evolution
BIO 470	Genomics and Bioinformatics
BIO 470	Aquatic Ecology
BIO 470	Endocrinology

In addition, as indicated above, we are likely to have several additional biology options offered in the areas of expertise of our new faculty.

V. Notes on select courses:

Be sure to refer to the Undergraduate Bulletin (<http://www.tcnj.edu/~bulletin>) for descriptions of all courses taught in Biology.

A. *BIO 301 Human Anatomy and Physiology I* – **note: This course does not serve as a biology option for BIOA majors.**

This is the Human Anatomy and Physiology course recommended for students wishing to pursue Physical or Occupational Therapy and for those who are BIOT, ELBI and ECBI. BIO 301 is not recommended for medical school preparation.

B. *BIO 399 Biology Internship (1 to 2 courses)* (Dr. Klug)*** **see note below.**

Internship involves application of intellectual and laboratory research skills acquired in course work to an investigative laboratory or field research project at a site off campus (pharmaceutical or biotechnology companies, colleges and universities, field stations, NJ Forensic Lab, etc.) Emphasis is on an efficiently conducted research project and effective oral and written communication skills. Internships may be paid or unpaid. Those students who perform research during the summer will be granted 1-2 course credits in the ensuing fall and spring semesters. An oral presentation is required as well as a paper written in the form of a scientific research publication.

Students who have obtained a research position and wish to pursue an internship for credit should email Dr. Klug (klugstev@tcnj.edu) to set up a meeting to discuss the project and any further questions. Prerequisites: Sophomore status as of May, a 2.5 cumulative GPA, and approval of the project by Dr. Klug.

*****NOTE: you may have 1 to 2 courses of either BIO 399 or BIO 493 count toward biology options. Any credit beyond two courses will count as elective credit toward graduation.**

C. *BIO 470A Topics in Biology – Plant Biotechnology and Genetic Engineering*

Prerequisites: Bio 185 (Themes) and BIO 231 (Genetics)

This course will be a research-based course exploring the experimental techniques required to genetically modify plants in order to better understand their growth and development. Students will examine agricultural applications of plant biotechnology methods and discuss the controversies of those applications. In the lab, students will generate transgenic plants in order to test the role of specific proteins in regulating plant growth.

D. *BIO 493 Independent Research ***see note below BIO 399.*

This course involves laboratory or field research under the direction of a faculty member at TCNJ and can be taken for 1 course unit/semester (a two semester project is recommended). Typically juniors and seniors enroll in Independent Research, though sophomores may inquire with individual faculty about starting on a research project. Interested students should *contact individual faculty members* with whom they are interested in working in order to determine whose lab they will work in. There are three requirements for enrolling in Independent Study:

- Overall GPA of 2.5 or better
- Form (available in Biology Main Office) filled out with faculty mentor, with one copy filed with Records and Registration and second with the main office in Biology, *no later than the end of the first week of the spring semester.*
- Poster presentation and research paper at the end of the research

E. *HONORS PROGRAM (Dr. Fangboner)*

- College-wide Honors Program – Before you complete your registration see Dr. Fangboner. Freshmen are expected to have three honors courses done in the first year. Make every effort to complete your honors program core requirements by the end of your sophomore year.
- Departmental Honors – If interested, see Dr. Fangboner.
- Honors Independent Research in Biology – Independent Research can simultaneously count toward the Biology Options and the College-wide honors program. See Dr. Fangboner with any questions.

VII. ALERTS

- A. **EXIT CUMULATIVE GPA IN SCIENCE:** In order to graduate, you must have an overall GPA of 2.0 or better; a 2.0 cumulative GPA in all sciences (you may include only 2 units of research related courses in this calculation); and a cumulative GPA of C- or better in all core courses (BIO 185, Themes in Biology; BIO 211, Eukaryotic Cell Biology; BIO 221, Ecology and Field Biology; BIO 231, Genetics; and BIO 498 Biological Seminar).
- B. All graduating seniors are encouraged to visit Career Service to begin work on a resume and to open a permanent credentials file. Seniors seeking employment will need these materials immediately.
- C. **OVERLOAD-** You may carry up to 18 credits without special permission. A 3.3 cumulative GPA, sophomore status or above and *permission from your advisor* (i.e., meet with them first!) and from Dr. O'Connell are needed to carry 19-20 credits.

The last day to register for Fall 2009 is the end of the first week of classes of Fall 2009

The final responsibility for the success of your advisement rests with you!