

## **Biology Registration Newsletter**

### ***For planning Fall '24 Course Registration***

Fall 2024 Course Registration Window  
Apr. 2-12, 2024

To help you prepare for Fall 2024 registration, please use the links below to assist in your planning. Though key policy updates are highlighted, a detailed description of policies, graduation requirements, *etc.* can be found in the [Biology Student Handbook](#). A general guide to registration can be accessed from [Records and Registration](#).

Getting help. Please include your PAWS ID number in any correspondence that concerns registration, enrollment, graduation requirements, or problems with your transcript with your advisor or the department chair, Dr Clement ([clementw@tcnj.edu](mailto:clementw@tcnj.edu)).

Click on a topic below to go directly to a section of the newsletter.

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### **Quick Access for Waitlists & Independent Research Forms**

- *Need a waitlist?* Check the waitlist section and then click [here](#) if you need a waitlist.
- *Registering for Independent research?*
  - o Talk to your research mentor first and then [click here](#) to fill out the Independent Research Form.
  - o Want to get involved in research? Read about Independent Research in the [Research Opportunities section](#) and fill in the [Independent Research Interest Form](#) to be considered for an independent research position.

## The Registration Process, 101

### When can I register?

- Registration is from Apr 2 through Apr 12, 2024. Each student is assigned a registration time based on earned course units. You can find your registration date and time in PAWS. Need help? Check out this [how-to](#) video!
- You can continue to register for Fall 2024 until the first week of the Fall 2024 (end of add/drop period), but many courses will be closed long before then.

### Academic Advising Appointments

- An Advising Registration hold has been placed on your account. Look for an email from your advisor to set up a meeting prior to your registration slot to discuss your progress in the major and plans for the next semester. Once you have that meeting, your advisor will remove the hold and you will be able to register for classes.
- Be sure to check PAWS to see if you have any additional holds you may need to address before you can register.

### What do I do if a course is full? Waitlist procedures.

- If all sections of a Biology course are full, we will open a waitlist accessible [here](#).
  - Individual Biology waitlists are available for: BIO 211, 221, 231, and 498.
  - All 300 and 400 level courses are combined on a single waitlist.
    - This waitlist is not made available until the majority of seats in all 300 and 400 level courses are filled.
    - If you have concerns (e.g. the only course available is a course you have already taken, you need two option courses to graduate and this is your last semester), please contact the chair directly with your concern.
- Waitlist policies are summarized below and can be read in full on the [Biology website](#).
  - Only submit a waitlist form when your registration window has opened. If you submit your form prior to your registration window, you will automatically be moved to the end of the list.
  - Putting your name on a waitlist does not guarantee you a seat in that class.
  - Only exceptional circumstances (e.g., not graduating on time) will be considered for registering students in a course above the cap.
- Chemistry and Physics waitlists are handled by their departments. You can visit the wait list pages on the [Chemistry](#) and [Physics](#) websites for more information. Please note that Chemistry and Physics courses cannot accept anyone above the cap.

## Biology Registration Policies - Seat Holding

- Holding seats. Registering in a course section in order to hold a seat for another student is a violation of TCNJ's Academic Integrity Policy for both the student holding the seat and the student taking the held seat. Course registration will be monitored by the chair for anomalies suggestive of seat holding.

- Registering for classes you do not intend to take. Please do not fill your schedule with placeholders by registering for classes you do not intend to take if you are waiting on a waitlist or for a seat to open up. This is another form of holding a seat that another student may need for their degree plan.

## Correlate Course Updates for Fall '24 Registration

- Physics 121 and 201. For the 2024/2025 academic year,, Biology students will have the option of taking either PHY 121 or PHY 201 to fulfill the physics requirement for the BS degree in Biology. PHY 121 is algebra-based physics, and PHY 201 is calculus-based physics. Please consult with your advisor to determine the right path for you.
- Physics 202. First, PHY 202 is not required of any Biology major. With that in mind, many students are interested in taking a second semester of general physics to fulfill prerequisites for medical school, graduate school, and more. For those who are interested in taking PHY 202 rather than PHY 122, please note MAT 128/CalcB is a prerequisite for this course. What does this mean for you? Read on!
  - If you have taken MAT 128, you can register for PHY 202 yourself when your registration slot opens.
  - If you have not taken MAT128 and you plan to or already have taken STA215:
    - You can opt to take PHY 122, which is an algebra-based physics.
    - You can take PHY 202 if you have a B or higher in PHY 201 and Mat127/CalcA. If this applies to you, please complete [this form](#) at the time of your registration, and the Physics Office will enroll you in PHY 202.
- General Advice: Please confer with your advisor during your appointment to plan which path of general physics, PHY 121 & 122 or PHY 201 & 202, is the best fit for you. Please be mindful that these prerequisites are important to ensuring your success in PHY 202.

## Policies for Off-Campus Courses

- Off-campus study
  - *NJ Community or County Colleges:* Off-campus study (e.g., a summer course) at a NJ county college is regulated by [NJ Transfer \(njtransfer.org\)](http://njtransfer.org). You can use this website to see the course equivalencies of any community or county college in New Jersey and understand what courses or requirements that course would fulfill at TCNJ.
  - *Off-campus study elsewhere.* Off-campus study at a non-NJ community college or a domestic four-year college must be approved by the chair of the department to determine which course(s) would be transferable to TCNJ. Be sure to confer with Dr. Clement before enrolling in these courses to determine the course equivalency. Here is the [form](#) for approving off-campus study.
  - Consult with Dr. Clement regarding online (distance learning) laboratory courses. As a general rule, courses with online labs are not approved.
- Study abroad
  - Can Biology majors study abroad? Of course! Any Biology major interested in studying abroad should contact the [Center for Global Engagement](#) and speak to their advisor well before they wish to travel abroad.

- o Any course to be taken abroad for biology option credit must receive approval of Dr. Clement before you enroll in the course.

## Fall '24 Courses Offered

Below is a list of core courses and option courses offered this Fall '24. Note that courses marked with OE also fulfill the organisms & evolution requirement.

### Core Courses

BIO 201 — Foundations of Biological Inquiry	BIO 221 — Ecology and Field Biology
BIO 211 — Cell Biology and Biochemistry	BIO 231 — Genetics

### Options Courses

BIO 301 — Human Anatomy & Physiology I*	BIO 399 — Biology Research Internship
BIO 312 — Microbiology	BIO 413 — Microscopic Anatomy
BIO 325 — Biomaterials	BIO 451 — Developmental Biology
BIO 332 — Biology of the Vertebrates (OE)	BIO 461 — Advanced Evolution
BIO 343 — General Entomology (OE)	BIO 471 — Genomics & Bioinformatics
BIO 370A — BioConnections: Genetic Disease & Society^	BIO 498A — Biology Seminar
BIO 390 - Biology Internship	BIO 498B — Biology

\* Not available as a major option for most Biology students.

^This is a 0.5 unit course. This course can count as a Biology options course if combined with a second BioConnections course.

## Research, Internship, and Course Assistant Opportunities

In the Biology department, there are additional opportunities for students to earn course credit including Independent Research, Biology Research Internship, and Course Assistants. Each of these types of courses require enrollment through a form or application – you will not be able to add them to your shopping cart. See below for details and reach out to Dr Clement with questions ([clementw@tcnj.edu](mailto:clementw@tcnj.edu)).

### Independent Research

- To register for independent research, you must have approval from a faculty member and discuss which course and number of units (often either 0.5 or 1 unit) prior to registering. The three courses include (full descriptions and syllabi are in the Biology Student Handbook):
  - o BIO 393 — Independent Research in Biology I
  - o BIO 493 — Independent Research in Biology II
  - o BIO 494 — Honors Independent Research in Biology II
- Once you have conferred with an independent research faculty member, you need to fill out the [Independent Study Qualtrics](#) form to be placed in the appropriate course. This form will be sent to your advisor to be approved before you are registered.
- Most Biology degree plans allow one unit of Independent Research to substitute for a Biology options course.
- If you are only taking a total of three courses next semester, it is important that you fill out this form and send it in as close to your registration window as possible. There is no need to

register for a course you do not intend to take just to have full time status as you wait to be enrolled in research.

- Interested in getting involved in research? Talk with your advisor during your academic advising session and fill in the [Research Interest Form](#) when made available by Dr Clement!

### **Independent Research in Biology Capstone**

- If you have completed at least one course unit of BIO 493 or BIO 494, you may complete your capstone by taking BIO 495 or BIO 496 with the same instructor.
  - BIO 495 — Independent Research in Biology Capstone
  - BIO 496 — Honors Independent Research in Biology Capstone
- To register for BIO 495 or 496, first confer with your research faculty mentor. Then, fill out the [Independent Study Qualtrics](#) form to be placed in the appropriate course. This form will be sent to your advisor to be approved before you are registered.
- BIO 495/496 Independent Research in Biology Capstone may substitute for BIO 498 — Biology Seminar.

### **Biology Internship - BIO 390**

- There are a number of biology-related internships in which students gain valuable experience and insights to applying biology in the workplace. If you have or are planning to participate in such a biology-related internship (paid or unpaid), you might consider registering for BIO 390 - Biology Internship and receive credit for a biology options class for your internship.
- If you are interested, please reach out to the Biology Internship Coordinator, Dr. Pecor ([pecor@tcnj.edu](mailto:pecor@tcnj.edu)) about the possibility.

### **Biology Research Internship — BIO 399** (Offered in the Fall semester only)

- A number of local pharmaceutical and biotech companies, as well as universities and ecological field stations throughout the country, offer undergraduate summer research opportunities that qualify for academic internship credit. If you participate in such a program, you might consider registering for BIO 399 — Biology Research Internship and receive course credit for a biology options class for your internship.
- If you are interested in this opportunity, please reach out to the Biology Research Internship Coordinator, Dr Erickson ([erickson@tcnj.edu](mailto:erickson@tcnj.edu)) to discuss whether your experience could qualify for credit.

### **Course Assistants — BIO 300**

- The Course Assistant (CA) Program in Biology provides students with the opportunity to mentor students in introductory and options courses. Currently, CAs are placed into nearly all core courses and select upper level courses.
- CAs earn 0.5 units of elective credit, and the course is pass/fail. CAs meet weekly with a faculty mentor, attend a designated class at the same time each week, sometimes hold peer study hours, and write a final reflective essay on their experience.
- If you are interested in being a CA, we encourage you to attend the information session held during registration. In most cases Course Assistants had to have already taken the course they are interested in being a CA for.
- To express interest in being a CA, you are asked to fill out an interest form with your top choices and availability based on your courses for the following semester. This form will be made available during the CA Information session and emailed to students during the registration period. If you are placed as a CA, you will be enrolled in BIO 300.

## Looking Ahead

Below is a list of Biology option courses that are likely to be offered during the Spring 2025 semester. Please note this list is neither exhaustive nor guaranteed. Courses designated organisms and evolution are noted by OE.

BIO 302 — Human Anatomy and Physiology II*	BIO 352 — BioStatistics
BIO 344 — Avian Biology (OE)	BIO 370 — BioConnections
BIO 420 — Plant-Insect Interactions (OE)	BIO 470 — Bacterial pathogenesis
BIO 441 — Plant Genetics	

*\* Not available as a major option for most Biology students.*

## Fall '24 Course Descriptions

Below are brief references for courses that are either new or have special attributes. Be sure to refer to PAWS for descriptions and prerequisites of all courses offered.

- A. **BIO 301 & 302 Human Anatomy and Physiology I (Fall) & II (Spring).** Students who plan to pursue Physical / Occupational Therapy or Physicians' Assistant programs, or are in an education program, may count one of these two courses as a Biology major option with the chair's approval. These courses cannot serve as an option for most students and are not recommended for medical school preparation.
- B. **BIO 370A: BioConnections - Genetic Disease and Society: Minds and Molecules.** Since the discovery in 1956 that Sickle Cell Disease is caused by an altered form of the hemoglobin protein, tremendous strides have been made in understanding the molecular causes of many human diseases. In the case of Sickle Cell Disease, the discovery has even led to the first case of curing someone using Crispr technology. However, it did take 68 years from cause to cure, in part because of science, and in part because of society. In this course we will explore what is known about the molecular causes of human genetic disease, what this tells us about human variation and evolution, and how decisions about which diseases to study and/or treat are influenced by a host of societal factors. We will view genetic disease through a scientific lens in order to become fully equipped to understand the science of human disease, and a societal lens in order to learn how to approach human disease from a humane, equitable, and ethical perspective. These topics will be explored through a series of readings (primary literature and non-fiction book), discussions, and short assignments. This is a 0.5 unit course that meets once a week. This can be combined with a second Biology Connections course to fulfill a Biology options course requirement.