

J-Term: Intensive Courses

1/3/2025 – 1/24/2025

IMPORTANT DATES

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|---------------------------|---------|
| J-Term Begins: | Jan. 3 |
| J-Term ADD/Drop Deadline: | Jan. 15 |
| J-Term Ends: | Jan. 24 |

GSAS CALENDAR

<https://registrar.fas.harvard.edu/calendars#upcoming>

REMINDERS

- * J-Term courses are considered Spring term courses. Credits will be counted towards your Spring term credits.
- * Register by going to <https://my.harvard.edu/>
- * For questions, contact: dms_courses@hms.harvard.edu



BCMP 301 Translational Pharmacology: The Science of Therapeutic Discovery and Development

David E. Golan, Irene G. Wong, Mark N. Namchuk
Jan 6 - Jan 24

DRB 330QC Experimental Approaches to Stem Cell, Developmental & Regenerative Biology

Trista North
Jan 6 – Jan 17

GENETIC 390QC Bootcamp: Experimental Approaches in Genetics

Scott Kennedy
Jan 8 – Jan 17

HBTM 301QC Case Studies in Human Biology & Translational Medicine

Marc Bonaca, Thomas Michel
Jan 13 – Jan 24

SHBT 203 Anatomy of Speech & Hearing

Barbara Fullerton, James Heaton
Jan 3 – Jan 24, Exam Jan 28

VIROLOGY 301QC Advanced Topics in Virology: Viral Oncology

James DeCaprio
Jan 7 – Jan 16



Biological Chemistry & Molecular Pharmacology

BCMP 301 Translational Pharmacology: The Science of Therapeutic Discovery and Development

David E. Golan, Irene G. Wong, Mark N. Namchuk

4 units. Enrollment limited to 42. Instructor consent required.

Meeting Dates: Jan 6 – Jan 24

Mon. – Fri., 9:00am to 12:00pm

Location: Longwood Campus, TBD

This intensive course, held during three weeks in January (13 class days), covers principles of pharmacology and their translation into new drug discovery and development. Students participate in project groups, composed primarily of graduate students, to propose a drug development strategy from target choice through clinical trials. Most sessions include lectures, panel discussions, and/or case studies presented by Harvard faculty and faculty experts from the pharmaceutical and biotechnology industries; several sessions provide scheduled time to work on the group project with expert facilitators from industry. Evaluation is based on written and oral presentations of the group project and on class participation. Enrollment may be limited.

Course Scheduling Note: Attendance at all sessions is mandatory, and students are expected to spend most afternoons preparing for the following day's sessions and working on the group project.

Course Co-Directors: David E. Golan, david_golan@hms.harvard.edu, Irene G. Wong, irene_wong@hms.harvard.edu, Mark N. Namchuk, Mark_Namchuk@hms.harvard.edu

Developmental & Regenerative Biology

DRB 330QC Experimental Approaches to Stem Cell, Developmental & Regenerative Biology

Trista North

2 units. Enrollment limited to 15. Consent of instructor required.



Meeting Dates: Jan 6 – Jan 17

Mon - Fri, 10:00am-4:00pm (*specific times each day may change - see syllabus for exact information*)

Location: see syllabus for daily location; first and last days will be held on Longwood campus

This laboratory and lecture-based course is designed to provide a survey of model systems and technical approaches utilized in developmental, stem cell, and regenerative biology, as well as integrate students with the DRB community at Harvard. Students will complete a series of in-person mini-rotations with laboratories of DRB faculty across the Harvard campuses and affiliated hospitals. Students engage with faculty and trainees to gain experience with a variety of models, experimental techniques, and research areas. Each day of the course will consist of an overview lecture followed by lab tours, protocol observations or activities, and interactive discussions and/or case study sessions or hands-on laboratory activities and interactive discussions, designed to facilitate student, lab member, and PI interactions. The course will culminate in short, informal student-led (5 minutes, 5 slides) brainstorming sessions inspired by a lab session of their choosing.

Course Note: Open to first-year and second-year BBS students. Not repeatable for credit.

Class Notes: Lunch is provided each day. Student final presentations *only* on Jan 17.

Course Director: Trista North, trista.north@childrens.harvard.edu

Curriculum Fellow: Kayla Nygaard, kayla_nygaard@hms.harvard.edu

Other Instructors: TBD

Genetics

GENETIC 390QC Bootcamp: Experimental Approaches in Genetics

Scott Kennedy

2 units. Enrollment limited to 8. Instructor Consent Required.

Meeting Dates: Jan 8 – Jan 17 (including Saturday, January 11)

Schedule varies depending on session, 8:30am – 5:00pm for most sessions (breakfast and lunch included)

Location: Research labs across the Longwood Campus

The goals of this course are to provide learners with a hands-on survey of major topics and themes in genetic and genomic analysis, as well as exposure to numerous experimental techniques and model organisms. Over the course of nine days, students will spend each day in a new lab and gain experience using genetic approaches to address biologically relevant



questions in a variety of experimental systems, including yeast, nematode, fly, zebrafish, mouse, human cells, and cancer. Given its growing use in research labs, a module dedicated to protein structure prediction using AlphaFold has been added starting this year. The course will combine lectures, group activities, and hands-on laboratory exercises that emphasize experimental methods, hypothesis generation and testing, and data analysis.

Students will be graded on a pass/fail basis. To receive credit for this course, students are expected to attend and arrive prepared for every course session. Students should aim to complete daily evaluations of course activities and a final overall course evaluation.

The participating labs are as follows:

Moazed Lab - Yeast genetics
Kennedy Lab - Nematode genetics
Perrimon Lab - Fruit fly genetics
Harris Lab - Zebrafish genetics
Sinclair Lab - Mouse genetics and aging
Warman Lab - Mouse and human genetics
Jost Lab - CRISPR screens in mammalian cells
Morton Lab - Human cytogenetics
Naxerova Lab - Cancer genetics
Walter Lab - Protein structure prediction with AlphaFold

Course Note: Priority will be given to first-year graduate students.

Prerequisite: Genetics 201 or permission from the Course Director/Curriculum Fellow

Course Director: Scott Kennedy (scott_kennedy@hms.harvard.edu)

Curriculum Fellow: Lorenzo Gesuita (Lorenzo_Gesuita@hms.harvard.edu)

Human Biology & Translational Medicine

HBTM 301QC Case Studies in Human Biology & Translational Medicine

Marc Bonaca, Thomas Michel

2 units. Restricted to Leder students only. Enrollment limited to 20. Instructor consent required.

Meeting Dates: Jan 13 – Jan 24

Mon - Fri, 9:00am-10:30am

Location: Longwood Campus, TBD



Two-week course that is required of and restricted to first-year LHB students. This course will review models of therapeutic development from epidemiologic observations through clinical development with a focus on lipid lowering therapies and diabetes. Students will be engaged in interactive workshops and will attend lectures led by leading clinical researchers.

Course Notes: This is an intensive January term course. Restricted to Leder students only.
Students will add this course to their cart and complete enrollment during the Spring Add/Drop period in January.

Course Instructor: Marc Bonaca, mbonaca@partners.org

Other Instructors: Thomas Michel, Thomas_Michel@hms.harvard.edu

Speech & Hearing Bioscience & Technology

SHBT 203 Anatomy of Speech & Hearing

Barbara Fullerton, James Heaton

4 units. Enrollment limited to 14. Instructor consent required.

Meeting Dates: Jan 3 – Jan 24

Mon-Fri, 9:00am – 1:00pm

Exam Date: Jan 28 - 2 hrs

Location: HMS, Longwood. Lecture room TBD, and Anatomy lab

This is now an elective course for graduate students in the SHBT speech and hearing program. It is based on anatomical dissection of the head, neck, and thorax in human cadavers with an emphasis on structures that are important in speech and hearing. Lectures cover basic brain anatomy and neuroscience, including some information on head and neck imaging, surgery, and head and neck cancer.

Course Note: This an intensive January course and is 4 credits. Students should be comfortable with basic biology. Students not enrolled in the SHBT program must get permission from the course director to register for the course.

Course Instructors: Barbara Fullerton, bfullerton@mgh.harvard.edu, James Heaton, james.heaton@mgh.harvard.edu



Virology

VIROLOGY 301QC Advanced Topics in Virology: Viral Oncology

James DeCaprio

2 units. Enrollment limited to 14. Instructor consent required.

Meeting Dates: Jan 7 – Jan 16

Tue/Wed/Thurs, 4:30pm - 6:00pm

Location: Longwood Campus, TBD

Introduction to viral oncology and critical evaluation of key papers in viral oncology. Requirements include presentations, written critiques, and class participation.

Course Notes: This is an intensive January course, limited to Virology students. Other interested students may request approval from the course instructor to enroll.

Course Instructor: James DeCaprio, james_decaprio@dfci.harvard.edu



