HARVARD
DIVISION OF MEDICAL SCIENCES

J-Term: Intensive Courses

January 9 – January 20, 2023

IMPORTANT DATES		GSAS CALENDAR
J-Term Begins:	**Jan. 9**	https://registrar.fas.harvard.edu/calendars#upcoming
J-Term Drop Deadline:	**Jan. 11**	
J-Term Ends:	**Jan. 20**	

REMINDERS

NOTE: several DMS courses run outside the J-term deadline. See course info for specific dates

* 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**

Updated 11/14/22

BCMP 301QC Translational Pharmacology: The Science of Therapeutic Discovery and Development
David E. Golan, Catherine I. Dubreuil, Mark N. Namchuk
Jan 3 - Jan 20

DRB 330QC Experimental Approaches to Stem Cell, Developmental & Regenerative Biology
Trista North, Wolfram Goessling, Ya-Chieh Hsu, Jeffrey Macklis, Kara McKinley, Olivier Pourquie, Kristin White, Jessica Whited
Jan 9 – Jan 20

GENETIC 390QC Bootcamp: Experimental Approaches in Genetics
Scott Kennedy
Jan 9 – Jan 20

HBTM 301QC Case Studies in Human Biology & Translational Medicine
Marc Bonaca, Thomas Michel
Jan 9 – Jan 20

MICROBI 302QC Introduction to Infectious Disease Research: Infectious Diseases Consortium Boot Camp
Dyann Wirth, Deepali Ravel
Jan 18 – Jan 21

SHBT 203 Anatomy of Speech & Hearing
Barbara Fullerton, James Heaton
Jan 3 – Jan 27

VIROLOGY 301QC Advanced Topics in Virology: Viral Oncology
James DeCaprio
Jan 3 – Jan 19

Biological Chemistry & Molecular Pharmacology

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

David E. Golan, Catherine I. Dubreuil, Mark N. Namchuk

2 units. Enrollment limited to 56. Instructor consent required.

Meeting Dates: Jan 3 – Jan 20
Mon - Fri, 10:00am – 12:00pm, live in person content with some synchronous zoom sessions, 1:00pm – 2:00pm on selected days (TBD)
Course Note: Schedule runs outside the J-Term semester dates. Class sessions will begin on **January 3** and will run through **January 20**.
Location: Information to be provided online on course page or through instructor.

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; most afternoons are either unscheduled or provide scheduled time (1 hour) to work on the group project. Evaluation is based on written and oral presentations of the group project and on class participation. Enrollment may be limited.

Course Co-Directors: David E. Golan, david_golan@hms.harvard.edu , Catherine I. Dubreuil, catherine_dubreuil@hms.harvard.edu, and Mark N. Namchuk, Mark_Namchuk@hms.harvard.edu

Course Curriculum Fellow: Nuru Stracey, nuru_stracey@hms.harvard.edu

Developmental & Regenerative Biology

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

Trista North, Wolfram Goessling, Ya-Chieh Hsu, Jeffrey Macklis, Kara McKinley, Olivier Pourquie, Kristin White, Jessica Whited

2 units. Limited enrollment to 15. Consent of instructor required for undergraduates.

Meeting Dates: Jan 9 – Jan 20
Mon - Fri, 10:00am-4:00pm
Location: Information to be provided online on course page or through instructor.

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. 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 a social event with the larger DRB community and short, informal student-led (five minutes, five slides) brainstorming sessions inspired by a lab session of their choosing.

Course Note: Open to first-year and second-year BBS students (HDRB undergraduates with approval of the course director). Not repeatable for credit.
Class Notes: Student final presentations *only* on Jan 20; optional DRB Career Panel and New Year's Party on Jan 19 (*evening*).

Course Director: Trista North, trista.north@childrens.harvard.edu
Curriculum Fellow: Kayla Nygaard, kayla_nygaard@hms.harvard.edu
Other Instructors: Trista North, Wolfram Goessling, Ya-Chieh Hsu, Jeffrey Macklis, Kara McKinley, Olivier Pourquie, Kristin White, Jessica Whited

Genetics

GENETIC 390QC Bootcamp: Experimental Approaches in Genetics

Scott Kennedy

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

Meeting Dates: Jan 9 – Jan 20
Schedule varies depending on session, 9:00am – 4:00pm for most sessions (lunch included)
Location: HMS Quad

The goals of this course are to provide learners with a hand-on survey of major topics and themes in genetic and genomic analysis and exposure to numerous experimental techniques and model organisms. Over the course of seven days, students will spend each day in a new lab and gain experience in using genetic approaches to address biologically relevant questions in a variety of experimental systems, including bacteria, C. elegans, mouse and yeast. 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:

Sinclair Lab	Mouse genetics and aging
Morton Lab	Human Cytogenetics
Jost Lab	Bacterial Genetics
Perrimon Lab	Fruit Fly Genetics and Screens
Moazed Lab	Yeast Genetics
Heiman Lab	Introduction to C. elegans
Warman/Harris Lab	Mouse, Zebrafish and Human genetics

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: Ognenka Avramovska (ognenka_avramovska@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 9 – Jan 20
Mon - Fri, 9:00am-10:30am
Location: Information to be provided online on course page or through instructor.

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.
Course Instructor: Marc Bonaca, mbonaca@partners.org
Other Instructors: Thomas Michel, Thomas_Michel@hms.harvard.edu

Microbiology & Immunobiology

MICROBI 302QC Introduction to Infectious Disease Research: Infectious Diseases Consortium Boot Camp

Dyann Wirth, Deepali Ravel

2 units. Enrollment limited to 20. Instructor consent required.

Meeting Dates: Jan 13 – Jan 20 (Fri Jan 13, Tues Jan 17, Wed Jan 18, Thurs Jan 19, Fri Jan 20)
Tues – Fri, 9:00am – 5:00pm
Location: Information to be provided online on course page or through instructor.

This January boot camp course provides a fun, informative introduction to the breadth of infectious disease research carried out at Harvard and beyond. Our goal is to introduce life science graduate students to potential thesis research areas while also giving you exposure to other topics and tools you'll encounter in the broader infectious disease research community. Students will also have the chance to meet faculty, students, and fellows in

infectious disease roles across the university. The course will focus on several aspects of infectious diseases:

1. Underlying biology of infectious diseases and the diverse pathogens that cause them
2. Modern approaches to studying infectious diseases, including experimental biology, epidemiology, outbreak investigation, bioinformatics, and clinical microbiology
3. Modern approaches to developing new interventions, including drugs, vaccines, diagnostics, and public health measures
4. Societal impacts of infectious disease and historical perspectives on infectious disease research and injustice in infectious disease research

Course Notes: This course is designed for life sciences graduate students but is open for cross-registration from other students. The Winter 2023 version of this course will be taught primarily through synchronous in-person lectures, discussions, and workshops. Interested students with questions about accessibility or prerequisites should contact the course directors as soon as possible.
Course Instructors: Deepali Ravel, deepali_ravel@hms.harvard.edu (primary course contact), Dyann Wirth

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 27
Mon-Fri, 9:00am – 1:00pm (class will start on a Tuesday, 1/3)
Breakdown: Lecture: 9:00am-10:15am, Anatomy Lab: 10:15am-1:00pm
Course Note: Schedule runs outside the J-Term semester dates. Class sessions will begin on **January 3** and will run until **January 27**.
Location: Information to be provided online on course page or through instructor.

This is a required course for graduate students in the SHBT speech and hearing program. It is based on anatomical dissection of the head and neck in human cadavers with an emphasis on structures that are important in speech and hearing. Lectures cover basic brain anatomy and neuroscience, and 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 10. Instructor consent required.

Meeting Dates: Jan 3 – Jan 19
Tue/Thurs, 4:30pm - 6:00pm
Please Note: Schedule runs outside the J-Term semester dates. Classes will be held on: **1/3, 1/5, 1/10, 1/12, 1/17, 1/19**
Location: Information to be provided online on course page or through instructor.

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