



**HARVARD**  
DIVISION OF MEDICAL SCIENCES

---

PhD Programs at Harvard Medical School

# Intensive Courses

January 11 – January 22, 2021

## Pages

1- 5: Active 2021 J-Term Classes & Descriptions

6: Bracketed Classes (*not available 2021*)

Semester dates: Jan 11 – Jan 22

DMS classes begin: Jan 4



[GSAS ACADEMIC  
CALENDAR](#)



Contact  
617-432-0605

[Dms\\_courses@hms.harvard.edu](mailto:Dms_courses@hms.harvard.edu)

JANUARY 2021

## Active 2021 J-Term Classes & Descriptions

### BCMP 301QC Translational Pharmacology: The Science of Therapeutic Development

David E. Golan, Catherine I. Dubreuil, Mark Namchuk, and guest faculty  
Jan 4 - Jan 22

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

Trista North, Ya-Chieh Hsu, Olivier Pourquie, Eric Greer, Jeffrey Macklis, Wolfram Goessling, Jessica Whited, April Craft, Jenna Galloway  
Jan 11 – Jan 22

### HBTM 301QC Case Studies in Human Biology & Translational Medicine

Marc Bonaca  
Jan 4 – Jan 15

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

Dyann Wirth, Deepali Ravel  
Jan 12 – Jan 22

### NEUROBIO 321QC Introduction to Python

Eleanor Batty  
Jan 4 – Jan 22

### SHBT 203 Anatomy of Speech & Hearing

Barbara Fullerton, James Heaton  
Jan 4 – Jan 29

### VIROLOGY 301QC Advanced Topics in Virology: Viral Oncology

James DeCaprio  
Jan 6 - Jan 22

## Biological Chemistry & Molecular Pharmacology

### **BCMP 301QC Translational Pharmacology: The Science of Therapeutic Development**

David E. Golan, Catherine I. Dubreuil, Mark Namchuk, and guest faculty

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

**Meeting Dates:** Jan 4 – Jan 22

Mon - Fri, 10:00am – 12:00pm (**live synchronous content via Zoom**)

**Please Note:** Schedule runs outside the J-Term semester dates. Class sessions will begin on **January 4** and will run until **January 22**.

This intensive course, held during three weeks in January (14 class days), covers principles of pharmacology and their translation into new drug 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 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.

**Location:** Contact Catherine Dubreuil for virtual Zoom information

**Course Co-Directors:** David E. Golan, [david\\_golan@hms.harvard.edu](mailto:david_golan@hms.harvard.edu), Catherine I. Dubreuil, [catherine\\_dubreuil@hms.harvard.edu](mailto:catherine_dubreuil@hms.harvard.edu), and Mark Namchuk, [Mark\\_Namchuk@hms.harvard.edu](mailto:Mark_Namchuk@hms.harvard.edu)

## Developmental & Regenerative Biology

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

Trista North, Ya-Chieh Hsu, Olivier Pourquie, Eric Greer, Jeffrey Macklis, Wolfram Goessling, Jessica Whited, April Craft, Jenna Galloway

2 Units. Limited enrollment. Consent of instructor required for undergraduates.

**Meeting Dates:** Jan 11 – Jan 22

JANUARY 2021

Mon - Fri, 11:00am-3:00pm. Please reach out to [mara\\_laslo@hms.harvard.edu](mailto:mara_laslo@hms.harvard.edu) with any questions.

This virtual 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 virtual 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 virtual lab tours, protocol observations or activities, and interactive discussions and/or case study sessions. Activities are 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:** Course meeting only on **Jan 11**; presentations only on **Jan 22**; optional DRB welcome party on **Jan 21**.

**Location:** Online information to be provided on course page or by instructor

**Course Director:** Trista North, [trista.north@childrens.harvard.edu](mailto:trista.north@childrens.harvard.edu)

**Curriculum Fellow:** Mara Laslo, [mara\\_laslo@hms.harvard.edu](mailto:mara_laslo@hms.harvard.edu)

## Human Biology & Translational Medicine

### **HBTM 301QC Case Studies in Human Biology & Translational Medicine**

Marc Bonaca

2 Units. Restricted to Leder students only.

**Meeting Dates:** Jan 4 – Jan 15

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

**Please Note:** Schedule runs outside the J-Term semester dates. Class sessions will begin on **January 4** and will run until **January 15**.

Two-week course that is required of and restricted to first-year LHB students. Each week of the course focuses on a different “case study” in translational medicine.

**Class Notes:** This is an intensive January term course. Restricted to Leder students only.

**Location:** Online information to be provided on course page or by instructor

**Course Instructor:** Marc Bonaca, [mbonaca@partners.org](mailto:mbonaca@partners.org)

**Curriculum Fellow:** Alireza Edraki, [Alireza\\_Edraki@hms.harvard.edu](mailto:Alireza_Edraki@hms.harvard.edu)

JANUARY 2021

## Microbiology & Immunobiology

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

Dyann Wirth, Deepali Ravel

2 Units. Enrollment limited to 15. Instructor consent required.

**Meeting Dates:** Jan 12 – Jan 22  
T/TH/Fri, 2:00pm – 5:00pm EST (with breaks)

This January boot camp course provides a fun, informative introduction to the breadth of infectious disease research carried out at Harvard and beyond. Students will 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, bioinformatics, and clinical microbiology
3. Modern approaches to developing new interventions, including drugs, vaccines, diagnostics, and public health measures

**Class Notes:** This course is designed for life sciences graduate students but is open for cross-registration from other students. The Winter 2021 version of this course will be taught primarily through synchronous online lectures, discussions, and workshops. Interested students with questions about accessibility and/or time zone conflicts should contact the course directors as soon as possible.

**Location:** Online information to be provided on course page or by instructor

**Course Instructors:** Deepali Ravel, [deepali\\_ravel@hms.harvard.edu](mailto:deepali_ravel@hms.harvard.edu), Dyann Wirth

## NEUROBIOLOGY

### **NEUROBIO 321QC Introduction to Python**

Eleanor Batty

2 Units. Enrollment limited to 25. Instructor consent required.

**Meeting Dates:** Jan 4 – Jan 22

JANUARY 2021

M/W/F, 3:00pm – 5:00pm

This course provides an introduction to Python focused on tools used in biology and neuroscience research. We will cover basic Python, fundamental concepts such as object-oriented programming, scientific programming libraries such as NumPy and SciPy, and plotting/visualization libraries. This class will consist of a combination of lectures and hands-on exercises designed around biology and neuroscience applications.

**Location:** Online information to be provided on course page or by instructor

**Course Instructors:** Eleanor Batty, Eleanor\_Batty@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 4 – Jan 29

Mon - Fri, 9:30am – 11:30am

**Please Note:** Schedule runs outside the J-Term semester dates. Class sessions will begin on **January 4** and will run until **January 29**.

This course covers anatomy of the head and neck with videos of some of the detailed anatomy. We will stress structures important in speech and hearing. Lecture topics include basic neuroanatomy, imaging, surgery and cancer of the head and neck. We are unable to offer the usual cadaver lab for the course this year.

**Course Note:** This an intensive January course, offered jointly with MIT as HST 718. Students should be comfortable with basic biology.

**Location:** This class will be remote via zoom, until further notice from HMS.

**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 6 – Jan 22

W/Fri, 9:00am – 10:30am

**Please Note:** Schedule runs outside the J-Term semester dates. This course will run from **January 6 - January 22**. Classes will be held on: **1/6, 1/8, 1/13, 1/15, 1/20, 1/22** from 9:00am to 10:30am.

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 only

**Location:** to be provided on course page

**Course Instructor:** James DeCaprio, [james\\_decaprio@dfci.harvard.edu](mailto:james_decaprio@dfci.harvard.edu)

## **Bracketed classes (not available 2021)**

### **Biological & Biomedical Sciences**

**BBS 302QC Python for Researchers**

David Van Vactor, Nathalie Vladis

### **Cell Biology**

**CELLBIO 301QC The Epidemiology & Molecular Pathology of Cancer**

Massimo Loda, Kathryn Penney

**Curriculum Fellow:** Jelena Patrnogic, [jelena\\_patrnogic@hms.harvard.edu](mailto:jelena_patrnogic@hms.harvard.edu)

### **Genetics**

**GENETIC 390QC Advanced Experimental Methods: Experimental Approaches in**

**Genetic Analysis**

Fred Winston

### **Neurobiology**

**NEUROBIO 314QC Mathematical Tools for Neuroscience**

John Assad

**JANUARY 2021**