

Division of Medical Sciences

Ph.D. Programs at Harvard Medical School

# January Intensive Courses

## January 2015

**You must sign up for January courses on your spring term Study Cards.**

**Online Registration:** January 17-25, 2015

### **Study Card Days:**

Harold Amos Graduate Student Lounge, TMEC Room 442

9:30 AM – 4:00 PM

- Wednesday, January 28 (G3's and above)
- Thursday, January 29 (G1's and G2's)

*Final day to turn in Study Cards to Cambridge in Dudley House: Friday, January 30*

**Add Course Deadline:** Monday, March 9

**Drop Course Deadline:** Tuesday, March 24

### **Holidays:**

Martin Luther King Day: Monday, January 19

President's Day: Monday, February 16

Spring Recess: March 14-22

*For information:* Call 617-432-4134 or email [dms\\_courses@hms.harvard.edu](mailto:dms_courses@hms.harvard.edu)

**DIVISION OF MEDICAL SCIENCES**  
**Ph.D. Programs at Harvard Medical School**  
**Preliminary 2014-2015 January Intensive Course Offerings**

**\*BCMP 301qc. Translational Pharmacology**

Catalog Number: 97487, Enrollment: Enrollment may be limited.

*Donald M. Coen (Medical School) 7617 and David E. Golan (Medical School)*

**Offered in alternate years; to be offered in January 2016:**

**[\*Cell Biology 301qc. The Epidemiology and Molecular Pathology of Cancer]**

Catalog Number: 24657

*Massimo Loda*

**To be offered in 2015-2016:**

**[\*Cell Biology 310qc. Current Topics in Cancer Biology Research]**

Catalog Number: 60742

*Alex Toker (Medical School)*

**To be offered in January 2016:**

**[\*Cell Biology 311qc. Experimental Approaches to Cell Biology]**

Catalog Number: 86396

*David Van Vactor (Medical School) 2089; Wade Harper (Medical School) 4957*

**\*DRB 330qc. Experimental Approaches to Developmental Biology**

Catalog Number: 6590, Enrollment: Limited to 16.

*Paola Arlotta 6703, and members of the Department*

**\*DRB 331. Critical Analysis and Experimental Approaches in Developmental Biology**

Catalog Number: 22543, Enrollment: Limited to 16

*Paola Arlotta 6703, and members of the Department*

**\*Genetics 390qc. Advanced Experimental Methods: Experimental Approaches in Genetic Analysis**

Catalog Number: 8039 Enrollment: Limited to 8.

*Fred Winston (Medical School) 7877 and members of the Department*

**\*Genetics 391qc. Advanced Experimental Design in Genetics**

Catalog Number: 70918. Enrollment: Limited to 8.

*Fred Winston (Medical School) and members of the Department*

**\*HBTM 301qc. Case Studies in Human Biology and Translational Medicine**

Catalog Number: 95905 Enrollment: Will be limited.

*Caren Grossbard Solomon (Medical School) 6960 and Mary Elizabeth Hamel (Medical School)*

**\*Microbiology 302qc. Introduction to Infectious Disease Research: Infectious Diseases Consortium Boot Camp**

Catalog Number: 96439

*Eric J. Rubin (Medical School) 4084*

**\*SHBT 203. Anatomy of Speech and Hearing**

Catalog Number: 17772 Enrollment: Limited to 12.

*Barbara C. Fullerton (Medical School), James Tracey Heaton (Medical School), and James Bradley Kobler (Medical School)*

**\*Virology 301qc. Advanced Topics in Virology - Viral Oncology**

Catalog Number: 33563

*James DeCaprio (Medical School)*

***OTHER COURSES OF INTEREST:***

**\*Systems Biology 301qc. Studying Evolution through Models and Experiments**

Catalog Number: 31854

*Roy Kishony (Medical School) 5501*

**\*Systems Biology 305qc. Practical Synthetic Biology**

Catalog Number: 22318

*Jeff Way (Medical School) 1595 and Pamela Silver (Medical School)*

**\*BCMP 301qc. Translational Pharmacology**

Catalog Number: 97487, Enrollment: Enrollment may be limited.

*Donald M. Coen (Medical School) 7617 and David E. Golan (Medical School)*

*Quarter course (spring term). M. through F., 9:30 – 4.*

This is an intensive course held during the first two full weeks of **January** (ten days) covering basic principles of pharmacology and how they are translated into the development of new drugs. Students participate actively in project groups composed of both graduate students and post-graduate M.D.'s to propose a strategy for drug development from target choice through clinical trials. There are two hours of lectures each of the first eight mornings; in the afternoons, there are case studies discussed by Harvard faculty and guest faculty from the pharmaceutical and biotechnology industries, or time to work on the group project. Evaluation is based on the project and class participation. Enrollment may be limited.

**January Session 2015**

**Meeting dates:** January 5, 6, 7, 8, 9, 12, 13, 14, 16

**Time:** 9:30 – 11:50 AM; 1:00 – 4:00 PM

**First Meeting:** Monday, January 5, 2015

**First Meeting Location:** Jeffery Modell Immunology Center, Fred S. Rosen Lecture Hall, Room 100A

**Concluding Discussion & Party:** January 16, 2015

**Course Heads:** Don Coen [don\\_coen@hms.harvard.edu](mailto:don_coen@hms.harvard.edu) and David Golan [david\\_golan@hms.harvard.edu](mailto:david_golan@hms.harvard.edu)

**Curriculum Fellow:** Catherine Dubreuil, [Catherine\\_dubreuil@hms.harvard.edu](mailto:Catherine_dubreuil@hms.harvard.edu), 617-432-7882

**Contact:** Stuart Ferguson, [stuart\\_ferguson@hms.harvard.edu](mailto:stuart_ferguson@hms.harvard.edu)

**OFFERED IN ALTERNATE YEARS; TO BE OFFERED IN JANUARY 2016:**

**[\*Cell Biology 301qc. The Epidemiology and Molecular Pathology of Cancer]**

Catalog Number: 24657

*Massimo Loda*

*Quarter course (spring term). M. through F., 9:30–5.*

This January course will provide students with an in-depth introduction to the epidemiology and molecular pathology of cancer. We will explore multiple types of cancer, including breast, colon, lung, prostate and brain, through a series of lectures and hands-on practice tutorials. These tutorials will include training in molecular pathology techniques, state of the art image analysis of human biomarkers, tissue processing, immunohistochemistry, and tumor histology. In addition, the epidemiology, genetics and relevant signal transduction pathways of cancer will be highlighted.

*Note:* Offered in alternate years. This is an intensive January course.

**January Session 2016**

**Course Head:** Massimo Loda, [massimo\\_loda@dfci.harvard.edu](mailto:massimo_loda@dfci.harvard.edu)

**Curriculum Fellow & Course Contact:** Megan Mittelstadt, [megan\\_mittelstadt@hms.harvard.edu](mailto:megan_mittelstadt@hms.harvard.edu), 617-432-7468

**EXPECTED TO BE OFFERED IN 2015-2016:**

**[\*Cell Biology 310qc. Current Topics in Cancer Biology Research]**

Catalog Number: 60742

Alex Toker (Medical School)

*Quarter course (spring term). M., W., F., 2:30-4.*

This course is designed for mid- to upper-year graduate students that are interested in Current Topics in Cancer Biology research. Leading and cutting edge technologies in Cancer Biology Research are explored in-depth using recent papers of high profile in a round-table discussion format. Topics include: Cancer Cell Signaling, Metastasis and EMT, Cancer Genomics, Cancer and microRNAs and Cancer Stem Cells.

**January Session 2016**

**Course Head:** Alex Toker, [atoker@bidmc.harvard.edu](mailto:atoker@bidmc.harvard.edu)

**Curriculum Fellow:** Megan Mittelstadt, [megan\\_mittelstadt@hms.harvard.edu](mailto:megan_mittelstadt@hms.harvard.edu), 617-432-7498

**TO BE OFFERED IN JANUARY 2016:**

**[\*Cell Biology 311qc. Experimental Approaches to Cell Biology]**

Catalog Number: 86396

*David Van Vactor (Medical School) 2089; Wade Harper (Medical School) 4957*

*Quarter Course (spring term) January Course*

Provides a comprehensive overview on the most recent advances in cell biology, covering hands-on experimental sessions including, electron microscopy, live cell imaging, single molecule imaging, 3D cultures, quantitative proteomics, protein interaction mapping, and more.

*Note:* Open to first-year and second-year BBS students; permission of instructor required. Not repeatable for credit.

**January Session 2016**

**Course Head:** David Van Vactor, [davie\\_vanvactor@hms.harvard.edu](mailto:davie_vanvactor@hms.harvard.edu)

**Co-Director:** Wade Harper, [wade\\_harper@hms.harvard.edu](mailto:wade_harper@hms.harvard.edu)

**Curriculum Fellow:** Henrike Besche, [henrike\\_besche@hms.harvard.edu](mailto:henrike_besche@hms.harvard.edu), 617-432-7497

## **\*DRB 330qc. Experimental Approaches to Developmental Biology**

Catalog Number: 6590, Enrollment: Limited to 16.

*Paola Arlotta 6703, and members of the Department*

*Quarter course (spring term). M. through Sa., 10:30–6\*\*; January 5–January 21, 2015.*

This laboratory course is designed to provide a survey of major topics and contemporary research in developmental and regenerative biology. Students will rotate in the laboratories of DRB faculty across the Harvard campuses and affiliated hospitals. Students engage with faculty and gain hands on experience in a variety of model systems, experimental techniques and research areas. Each day of the course will consist of a lecture followed by hands-on laboratory activities and interactive discussions.

*Note:* Intensive January course. Open to first-year and second-year BBS students. Not repeatable for credit.

### **Schedule**

#### **Tentative Topics include:**

1. Matt Pecot: Neural circuit Assembly in the Drosophila nervous system
2. Jennifer Waters: Imaging theory and Practice
3. Trista North & Wolfram Goessling: Vessel Development in Zebrafish
4. Jay Rajagopal: Lung regeneration
5. Ya-Chieh Hsu: Mammalian Skin and Hair follicle regeneration
6. Jeffrey Macklis: Neurogenesis in Mammalian Central Nervous System
7. Kiran Musunuru: Human genetic studies
8. Jessica Whited: Regeneration of vertebrate limbs (axolotl)
9. Amar Sahay: Learning and memory in mammals
10. Additional Faculty: Matt Harris, Vicki Rosen and Kristin White

Location and exact schedule along with background readings and detailed information for each day will be posted on the course iSite.

### **January Session 2015**

**Meeting Dates:** January 5 – January 21, 2015

**Time:** 10:30 AM – 6:00 PM. \*\*Please note, some sessions may run until 7:00 PM.

**First Meeting:** Monday, January 5, 2015, 5:00 PM

**First Meeting Location:** Sherman Fairchild G62, Cambridge campus

**Course Head:** Paola Arlotta, [paola\\_arlotta@hms.harvard.edu](mailto:paola_arlotta@hms.harvard.edu)

**Curriculum Fellow:** Abha Ahuja, [abha\\_ahuja@hms.harvard.edu](mailto:abha_ahuja@hms.harvard.edu), 414-467-8348



### **\*DRB 331. Critical Analysis and Experimental Approaches in Developmental Biology**

Catalog Number: 22543, Enrollment: Limited to 16

Paola Arlotta 6703, and members of the Department

*Half course (spring term). M. through Sa., 10:30–6, January 5-January 21, 2015.*

This course will provide a survey of major topics and contemporary research in developmental and regenerative biology. Students will rotate in the laboratories of DRB faculty across the Harvard campuses and affiliated hospitals. Students engage with faculty and gain hands on experience in a variety of model systems, techniques and research areas. Each day of the course will consist of a lecture followed by hands-on laboratory activities and interactive discussions. Students will be required to complete the lab experience and the following assignments: lead two chalk-talk format paper presentations, and write one 5-6 page research proposal.

*Note:* Intensive January course.

#### **Schedule**

##### **Tentative Topics include:**

1. Matt Pecot: Neural circuit Assembly in the Drosophila nervous system
2. Jennifer Waters: Imaging theory and Practice
3. Trista North & Wolfram Goessling: Vessel Development in Zebrafish
4. Jay Rajagopal: Lung regeneration
5. Ya-Chieh Hsu: Mammalian Skin and Hair follicle regeneration
6. Jeffrey Macklis: Neurogenesis in Mammalian Central Nervous System
7. Kiran Musunuru: Human genetic studies
8. Jessica Whited: Regeneration of vertebrate limbs (axolotl)
9. Amar Sahay: Learning and memory in mammals
10. Additional Faculty: Matt Harris, Vicki Rosen and Kristin White

Location and exact schedule along with background readings and detailed information for each day will be posted on the course iSite.

#### **January Session 2015**

**Meeting Dates:** January 5 – January 21, 2015

**Time:** 10:30 AM – 6:00 PM. **\*\*Please note, some sessions may run until 7:00 PM.**

**First Meeting:** Monday, January 5, 2015, 5:00 PM

**First Meeting Location:** Sherman Fairchild G62, Cambridge campus

**Concluding Discussion & Party:** TBA

**Course Head:** Paola Arlotta, [paola\\_arlotta@hms.harvard.edu](mailto:paola_arlotta@hms.harvard.edu)

**Curriculum Fellow:** Abha Ahuja, [abha\\_ahuja@hms.harvard.edu](mailto:abha_ahuja@hms.harvard.edu), 414-467-8348

**\*Genetics 390qc. Advanced Experimental Methods: Experimental Approaches in Genetic Analysis**

Catalog Number: 8039 Enrollment: Limited to 8.

*Fred Winston (Medical School) 7877 and members of the Department*

*Quarter course (spring term). M. through F., 8:30-4:00, January 5-January 16, 2015.*

A survey of major themes in genetics combined with exposure to various experimental techniques, technologies, and model systems. Combines lectures and hands-on laboratory activities emphasizing experimental methods, hypothesis generation and testing, and data analysis.

*Note:* Limited to 8 students. Priority will be given to G1 graduate students in the BBS Department. Students must first contact the faculty for enrollment approval prior to registration for the course. Meeting Dates/Times: Approximately 8:30 A.M. - 4:00 P.M. each day for 10 days January 5 – 16, 2015 (Monday – Friday).

*Prerequisite:* Students must also enroll in, or have taken, Genetics 201.

**Schedule**

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>5</b> Dr. Harris (Zebrafish)	<b>6</b> Dr. Hochschild (Bacteria)	<b>7</b> Dr. Winston (Yeast)	<b>8</b> Dr. Sinclair (Mouse/aging)	<b>9</b> Dr. DePace ( <i>Drosophila</i> )
<b>12</b> Dr. Blackwell ( <i>C. elegans</i> )	<b>13</b> Dr. Blower ( <i>Xenopus</i> )	<b>14</b> Dr. Warman (Mouse/humans)	<b>15</b> Dr. Churchman (Yeast/NET-seq)	<b>16</b> Dr. MacArthur and Dr. Daly (Humans)

**January Session 2015**

**Meeting Dates:** January 5 – 16, 2015 (Monday – Friday)

**Time:** Approximately 8:30 A.M. – 4:00 P.M.

**First Meeting:** Monday, January 5, 2015

**First Meeting Location:** Enders Building, Room 260 (Matt Harris’s lab), 300 Longwood Avenue, Boston, MA 02115

**Course Head:** Fred Winston, [winston@genetics.med.harvard.edu](mailto:winston@genetics.med.harvard.edu)

**Curriculum Fellow:** Emily Gleason, [Emily\\_Gleason@hms.harvard.edu](mailto:Emily_Gleason@hms.harvard.edu), 617-432-7203

### \*Genetics 391qc. Advanced Experimental Design in Genetics

Catalog Number: 70918. Enrollment: Limited to 8.

*Fred Winston (Medical School) and members of the Department*

*Quarter course (spring term). M. through F., 8:30-4:00, January 5-January 16, 2015.*

To be run concurrently with Genetics 390qc. Students will have the opportunity to design experimental approaches that aim to answer specific questions in the field of genetics. Combined with the hands-on laboratory experience of Genetics 390qc, students will use their knowledge of experimental methods and data analysis with a variety of model organisms and techniques. Over the two-week course period, students will be asked to reflect daily on their experiences and design two unique experiments that will broaden their experience in the areas of hypothesis testing and data interpretation.

*Note:* Must be taken concurrently with Genetics 390qc. Limited to 8 students. Priority will be given to G1 graduate students in the BBS Department. Students must first contact the faculty for enrollment approval prior to registration for the course. Meeting Dates/Times: Approximately 8:30am – 4:00pm each day for 10 days from January 5 – 16, 2015 (Monday – Friday).

#### Schedule

<b>Monday</b>	<b>Tuesday</b>	<b>Wednesday</b>	<b>Thursday</b>	<b>Friday</b>
<b>5</b> Dr. Harris (Zebrafish)	<b>6</b> Dr. Hochschild (Bacteria)	<b>7</b> Dr. Winston (Yeast)	<b>8</b> Dr. Sinclair (Mouse/aging)	<b>9</b> Dr. DePace ( <i>Drosophila</i> )
<b>12</b> Dr. Blackwell ( <i>C. elegans</i> )	<b>13</b> Dr. Blower ( <i>Xenopus</i> )	<b>14</b> Dr. Warman (Mouse/humans)	<b>15</b> Dr. Churchman (Yeast/NET-seq)	<b>16</b> Dr. MacArthur and Dr. Daly (Humans)

#### January Session 2015

**Meeting Dates:** January 5 – 16, 2015 (Monday – Friday)

**Time:** Approximately 8:30am – 4:00pm

**First Meeting:** Monday, January 5, 2015

**First Meeting Location:** Enders Building, Room 260 (Matt Harris's lab), 300 Longwood Avenue, Boston, MA 02115

**Course Head:** Fred Winston, [winston@genetics.med.harvard.edu](mailto:winston@genetics.med.harvard.edu)

**Curriculum Fellow:** Emily Gleason, [Emily\\_Gleason@hms.harvard.edu](mailto:Emily_Gleason@hms.harvard.edu), 617-432-7203

### **\*HBTM 301qc. Case Studies in Human Biology and Translational Medicine**

Catalog Number: 95905 Enrollment: Will be limited.

*Caren Grossbard Solomon (Medical School) 6960 and Mary Elizabeth Hamel (Medical School)*

*Quarter course (spring term). M. – Th., 9-11, & F., 9-10.*

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.

*Note:* January term course. Restricted to students in the Leder Human Biology and Translational Medicine Program only.

#### **Schedule**

##### *Week 1*

##### **Monday, Tuesday: Leukotriene Inhibition Therapy for Asthma (Jeff Drazen)**

Dr. Drazen will review how basic discoveries in the enzymology of leukotrienes led to the development of new therapeutic agents used to treat asthma.

##### **Wednesday: Cohort Studies (Solomon)**

##### **Thursday: Randomized Controlled Trials #1 (Hamel)**

##### **Friday: (Drazen, Solomon, Hamel)**

##### *Week 2*

##### **Monday, Tuesday: Fabry Disease (Mark Goldberg)**

Dr. Goldberg will describe the research establishing the molecular defect causing Fabry Disease ( $\alpha$ -galactosidase A deficiency), and the development and clinical testing of effective treatment of the disease with alpha-galactosidase beta.

##### **Wednesday: Case Control Studies (Solomon)**

##### **Thursday: Randomized Controlled Trials #2 (Hamel)**

##### **Friday (Goldberg, Hamel, Solomon)**

#### **January Session 2015**

**Meeting Dates:** January 5-9, January 12-16

**Time:** 9:00 – 11:00 AM

**First Meeting:** Monday, January 5, 2015

**Final Meeting:** Friday, January 16, 2015

**Location:** New England Journal of Medicine Conference Room, 6<sup>th</sup> Floor of Countway

**Course Head:** Caren Solomon ([csolomon@nejm.org](mailto:csolomon@nejm.org)) and Mary Beth Hamel ([mhamel@nejm.org](mailto:mhamel@nejm.org))

**Curriculum Fellow:** Joya Mukerji, [joya\\_mukerji@hms.harvard.edu](mailto:joya_mukerji@hms.harvard.edu)

**\*Microbiology 302qc. Introduction to Infectious Disease Research: Infectious Diseases Consortium Boot Camp**

Catalog Number: 96439

*Eric J. Rubin (Medical School) 4084*

*Quarter course (spring term). M. through F., 9-5.*

This intensive January course provides an introduction to the breadth of infectious disease research carried out at Harvard. Students will learn techniques for studying infectious diseases, more about different types of infectious diseases, and meet faculty, students, and postdocs in infectious diseases labs at Harvard.

**Schedule**

Please refer to the [Microbiology 302qc bootcamp site](#) for more information about the course schedule.

**January Session 2015**

**Meeting Dates:** January 12-16, 2015

**Time:** 9:00 AM – 5:00 PM

**First Meeting:** Monday, January 12, 2015

**Final Meeting:** Friday, January 16, 2015

**Location:** TMEC 334

**Course Director:** Eric Rubin, 617-432-3335 (office), [erubin@hsph.harvard.edu](mailto:erubin@hsph.harvard.edu)

**Course Coordinator/Curriculum Fellow:** Zofia Gajdos, [zofia\\_gajdos@hms.harvard.edu](mailto:zofia_gajdos@hms.harvard.edu), 617-432-1871 (office)

**\*SHBT 203. Anatomy of Speech and Hearing**

Catalog Number: 17772 Enrollment: Limited to 12.

Barbara C. Fullerton (Medical School), James Tracey Heaton (Medical School), and James Bradley Kobler (Medical School)

Half course (spring term). Lecture: M.-F., 9:30- 10:30 am, Lab: M.- F., 10:30-1:30 pm.

This course covers anatomy of the head and neck, with cadaver dissection, stressing structures important in speech and hearing. Lecture topics also include basic neuroanatomy, imaging, surgery, and cancer of head and neck.

Note: This is an intensive January Course. Offered jointly with MIT as HST 718. Classes to be held at the Harvard Medical School campus (HMS)

Prerequisite: Introductory biology or equivalent and permission of the course director.

**Schedule (UPDATED 12/11)**

<b>DATE</b>	<b>LECTURE- 9:30 am</b>	<b>LAB- 10:30 am-1:30 pm</b>	<b>LOCATION</b>
Mon., 1/5	Introduction Heaton	Thorax (lab 1); Kobler, BF	HMS, 443MEC
Tues., 1/6	Anat of respiration- Heaton	Thorax, II (lab 1, cntd.); Kobler, BF	HMS, 443MEC
Wed., 1/7	Anatomy of neck I- Fullerton	Neck I (lab 2); BF; Kobler	HMS, 443MEC
Thurs., 1/8	Anat of neck II- Fullerton	Neck II (lab 2, cntd.); BF, Kobler	HMS, 443MEC
Fri., 1/9	Cranial cavity/nerves I Fullerton	Cranial cavity (lab 3); BF	HMS, 443 MEC
Mon., 1/12	Temporal bone – ROSOWSKI	9:30-11 am- bone specimens, no lab	MEEI: 4th fl. Conf
Tues., 1/13	Anatomy of face- Fullerton	Face (lab 4) Fullerton	HMS, 443MEC
Wed., 1/14	Brain I – Fullerton	Brain lab I- human brain; Fullerton	MEEI: 4th fl. Conf
Thurs., 1/15	Anatomy of jaw- Fullerton	Infratemporal fossa (lab 5); BF, Kobler	HMS, 443MEC
Fri., 1/16	Brain II- Fullerton	Brain lab II- human brain; BF; ?	MEEI: 4th fl. Conf
Mon., 1/19	<b>HOLIDAY- MLK DAY</b>		
Tues., 1/20	Cranial nerves II/eye? Fullerton	Infratemp. fossa, TMJ (lab 5 cntd); BF, Kobler	HMS, 443MEC
Wed., 1/21	Larynx & phonation- Kobler	Fresh cow larynx lab - Kobler	HMS, 443MEC
Thurs., 1/22	Oral cavity,pharynx-	Oral cavity, pharynx, larynx (lab 7);	HMS, 443MEC

Heaton

JTH

Fri., 1/23  
8:30 am Functional anatomy of vocal tract- STEPP Pharynx, larynx, (lab 7, cntd); JTH, JK HMS, 443MEC

Mon., 1/26 Neural control of speech- Heaton Lecture 9:30-11; student models 11-12:30 pm HMS, 443MEC

Thurs.,1/29 EXAM TIME TO BE DETERMINED- 12:30 or 1 pm HMS, 443 MEC

DATE LECTURE- 9:30 am LAB- 10:30 am-1:30 pm HMS, 109 MEC

**January Session 2015**

**Meeting Dates:** January 5-30, 2015 (*subject to change*)

**Time:** 9:30 – 11:00 AM (lecture); 11:00 AM – 1:00 PM (lab)

**First Meeting:** Monday, January 5, 2015

**Examination Date:** Friday, January 30

**Location:** TMEC 443; **Exam Location:** TMEC 109

**Course Instructors:** Barbara Fullerton ([Barbara\\_fullerton@meei.harvard.edu](mailto:Barbara_fullerton@meei.harvard.edu)), James Kobler, James Heaton

**Guest lecturers:** Joe Perkell, John Rosowski

**\*Virology 301qc. Advanced Topics in Virology - Viral Oncology**

Catalog Number: 33563

James DeCaprio (Medical School)

Quarter course (spring term). Tu., Th., 4:30–6:00.

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

*Note:* Offered in the month of January.

**Tentative Schedule**

<b>When</b>	<b>What</b>	<b>Who</b>	<b>Pathway</b>
Tue 01/06/15 4:30 - 6:00	Introduction to Viral Oncology	DeCaprio	
Thu 01/08/15 4:30 - 6:00	HTLV-1	Jacobsen	
Tue 01/13/15 4:30 - 6:00	KSHV	Kaye	
Thu 01/15/15 4:30 - 6:00	HPV	Howley	p53
Tue 01/20/15 4:30 - 6:00	EBV	Gewurz	
Thu 01/22/15 4:30 - 6:00	MCPyV	DeCaprio	Rb

**January Session 2015**

**Meeting Dates:** January 6, 8, 13, 15, 20, 22

**Time:** 4:30 – 6:00pm

**First Meeting:** Tuesday, January 6, 2015

**Last Meeting:** Thursday, January 22, 2015

**Location:** TMEC 447

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



## *Other courses of interest*

### **\*Systems Biology 301qc. Studying Evolution through Models and Experiments**

Catalog Number: 31854

*Roy Kishony (Medical School) 5501*

*Quarter course (spring term). M. through F., 10–12.*

Intensive January course covering theoretical foundations in population genetics, genetic drift versus selection, identifying selection in genomes, advances in laboratory evolution experiments, with applications to key questions in systems biology and evolution.

*Note:* January 12, 2015 - January 23, 2015. Class will be held in Armenise RM 627, HMS. To register for this course, please contact the Systems Biology Department at SysBio.Courses@hms.harvard.edu. Course website: <http://isites.harvard.edu/k100765>.

### **January Session 2015**

**Meeting Dates:** January 12-23, 2015

**Location:** Armenise RM 627, HMS

**\*Systems Biology 305qc. Practical Synthetic Biology**

Catalog Number: 22318

*Jeff Way (Medical School) 1595 and Pamela Silver (Medical School)*

*Quarter course (spring term). M. through F., 4–6.*

Synthetic biology is a new discipline that seeks to enable the predictable engineering of biological systems. According to one conception of synthetic biology, proteins and genetic regulatory elements are modular and can be combined in a predictable manner. In practice however, assembled genetic devices do not function as expected. The purpose of the course is to go beyond the textbook, first-pass description of molecular mechanisms and focus on details that are specifically relevant to engineering biological systems.

*Note:* January 12, 2015 - January 23, 2015. Class will be held in Warren Alpert RM 563, HMS. To register for this course, please contact the Systems Biology Department at [SysBio.Courses@hms.harvard.edu](mailto:SysBio.Courses@hms.harvard.edu). Course website: <http://isites.harvard.edu/k100763>.

**January Session 2015**

**Meeting Dates:** January 12-23, 2015

**Location:** Warren Alpert RM 563, HMS