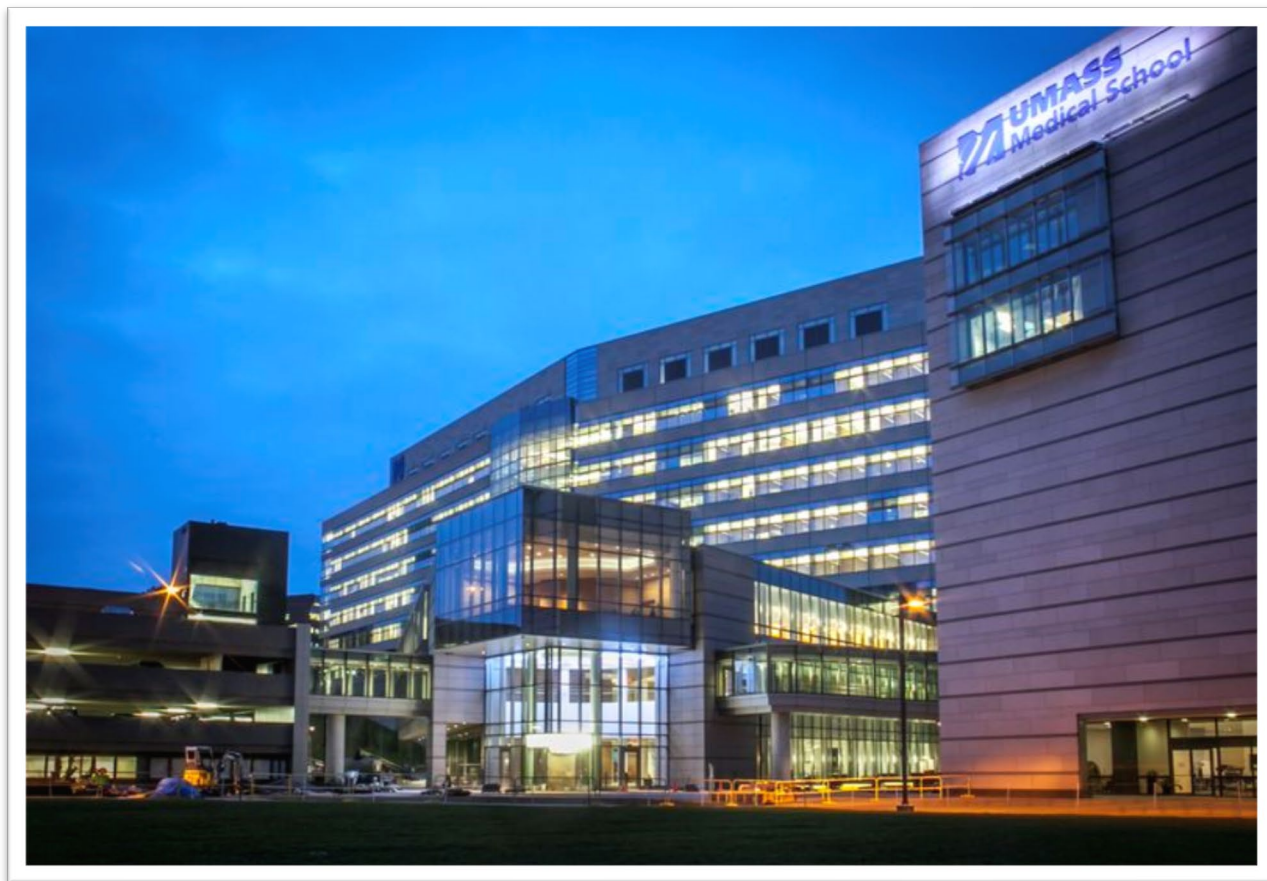




# Graduate School of Biomedical Sciences



## Course Catalog & Registration Spring 2019

Registration Open: November 20 – December 11, 2018

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# GSBS SPRING 2019 REGISTRATION INSTRUCTIONS

Registration Period: 11/20/2018-12/11/2018

Final Date for add/drop: 2/14/2019

## PeopleSoft Campus Solutions (PSCS) On-line Registration

### To begin online Registration

Sign into PeopleSoft Campus Solutions (PSCS) with your assigned User name and Password

<https://wsa-prd.umasscs.net/psp/wsaprd90/?cmd=login&languageCd=ENG>

### PSCS Online Training for Students

<http://inside.umassmed.edu/registrar/Peoplesoft/Online-Training-for-Students/>

### Registration Changes, Course Drops or Adds

Instructions for changing your registration on-line in PSCS can be found in the PSCS online training (see link above). They can also be made manually through the Graduate School office using the Registration Change Form.

## Class Numbers

Please note: course numbers (example: BBS601) are not the same as class numbers (example: 1257). **Class numbers are unique identifiers that change every semester.** The Class Number is included with the course information, except for research or tracking courses (where there are multiple faculty sections)

You will need to use the Class Numbers Lists to register for any Research or Tracking Course. Class number lists are within this registration guide; check the table of contents for the page numbers

## Class Meeting Information

Students are strongly advised to obtain class meeting information directly from the Course Director prior to registering for the course, particularly if there is a concern about conflicts with other course offerings. Frequently faculty have not finalized this information by the date that Registration opens. If the information about class start/end dates, meeting times and room numbers has been submitted to the Graduate School office, it will be in the Course Catalog section of this document.

# ASSISTANCE

## Assistance with PSCS Password or Access Problems

Contact the UMWHelpdesk, 508-856-8643 [umwhelpdesk@umassmed.edu](mailto:umwhelpdesk@umassmed.edu)

## Assistance with Administrative Questions

### Basic & Biomedical Sciences Students Contact:

Mary Ellen Lane, S1-824, 508-856-4018, [maryellen.lane@umassmed.edu](mailto:maryellen.lane@umassmed.edu)

### Clinical & Translational Sciences and MD/PhD Students Contact:

Anne Michelson, S1-824, 508-856-8025, [anne.michelson@umassmed.edu](mailto:anne.michelson@umassmed.edu)

## Assistance with Advanced Topics or Academic Questions Related to Courses

Students are advised to meet with their Graduate Program Director, Thesis Advisor or with Associate, Dean Mary Ellen Lane, for assistance in selecting Advanced Topics or Elective Courses, or if you have questions related to program or course requirements.

### Graduate Program Directors

Program	Name	Location	Telephone
Biochemistry and Molecular Pharmacology	Kobertz, William	LRB-804	508-856-8861
Bioinformatics & Computational Biology	Weng, Zhiping	AS5-1069	508-856-8866
Cancer Biology	Kim, Dohoon	LRB 4-422	508-856-4428
Cancer Biology	Mercurio, Arthur	LRB-408	508-856-8676
Cell Biology	Imbalzano, Anthony	S3-125	508-856-1029
Clinical & Population Health Research	Lapane, Kate	AC7-073	508-856-8999
Health Sciences Preparatory Program	Knight, Kendall	S1-824	508-856-5628
Immunology & Microbiology (Immunology Advisor)	Silverman, Neal	LRB-326	508-856-5826
Immunology & Microbiology (Virology Advisor)	Morrison, Trudy	S5-250	508-856-6592
Immunology & Microbiology (Bacterial Pathogenesis Advisor)	Beth McCormick	AS8-2049	508-856-6048
Interdisciplinary Graduate Program	Peterson, Craig	Biotech2, Suite 210	508-856-5858
Interdisciplinary Graduate Program	Tissenbaum, Heidi	LRB-621	508-856-5840
MD/PhD	Corvera, Silvia	Biotech 2, suite 107	508-856-6898
MD/PhD	Szabo, Gyongyi	S1-824	508-856-8025
Millennium MD/PhD Program	Kornfeld, Hardy	S1-824	508-856-8025
MS in Clinical Investigation	Goldberg, Robert	S1-824	508-856-8025
Neuroscience	Weaver, David	LRB-723	508-856-2495
Pathway to Graduate Study	Lewis, Brian	LRB-521	508-856-4325
Translational Science	Mandrekar, Pranoti	LRB-221	508-856-5391
Translational Science	Royer, William	LRB-921	508-856-6912

## Academic Calendar Spring 2019

SPRING				
PROGRAM(S)	DESCRIPTION	SESSION ID	START	END
MD/PhD	MD/PhD Session	MDP	1/2/2019	4/26/2019
HSPP	HSPP Session	HSM	1/2/2019	5/24/2019
ALL	HOLIDAY: MLK		1/21/2019	1/21/2019
CPHR, MSCI	CTS Class Session	CPH	1/23/2019	5/7/2019
CPHR, MSCI	CTS Research Session	CTS	1/22/2019	5/17/2019
BBS	Recruitment Weekend (1)		1/10/2019	1/11/2019
BBS	Recruitment Weekend (2)		1/24/2019	1/25/2019
BBS, PGSP	Lab Session 1	L1	2/4/2019	3/29/2019
BBS, MPP, PGSP	Regular Academic Session	1	2/4/2019	5/31/2019
BBS	ALTERNATE Recruitment Weekend		2/7/2019	2/8/2019
ALL	HOLIDAY: President's Day		2/18/2019	2/18/2019
CPHR, MSCI	CTS Spring Break		3/10/2019	3/17/2019
BBS, PGSP	Lab Session 2	L2	4/1/2019	5/31/2019
ALL	HOLIDAY: Patriot's Day		4/15/2019	4/15/2019
ALL	GSBS Awards Ceremony		5/30/2019	5/30/2019

# COURSES FOR REGISTRATION

## Basic & Biomedical Science Courses

### **BBS 603 - Responsible Conduct of Research - Post Doctoral Scholars**

**Class #: 3071**

This is lecture and discussion based class covering the 9 specific topics in Responsible Conduct of Research as mandated by NIH. It consists of four, two-hour sessions plus and additional two-hour session to introduce Individual Development Plans.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** Imbalzano, Anthony

**Course Director email:** [anthony.imbalzano@umassmed.edu](mailto:anthony.imbalzano@umassmed.edu)

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:** Parker, Irina

**Course Administrator email:** [irina.parker@umassmed.edu](mailto:irina.parker@umassmed.edu)

**Class Meeting Information:** Classes will be held from 9:30a-11:30a on February 5th, 7th, 11th, 15th and 20th

**Class Meeting Location:** Goff S2-309 B/C

**Required Textbooks:** Macrina, Francis L. Scientific Integrity: Text and Cases in Responsible Conduct of Research. ASM, 2005. ISBN: 1-55581-318-6. TEXTBOOK IS PROVIDED

**Recommended Textbooks:**

**Additional notes:**

## BBS 717 - Structural Biology

**Class #: 3621**

Structural Biology has revolutionized biology. The purpose of this course is to provide graduate students with a detailed introduction to approaches for structural determination of macromolecules including protein crystallography, cryo electron microscopy (CryoEM), nuclear magnetic resonance (NMR) spectroscopy and small angle X-ray scattering (SAXS). Emphasis will be placed on both structural determination and analysis of dynamics, which can be crucial for macromolecular function. Normally, each week will include a 90 minute lecture that is supplemented with either a practical laboratory exercise, paper discussion or problem set, whose time and venue will depend upon the activity.

**Prerequisites:** None

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Biochemistry & Molecular Pharmacology

**Course Director:** Royer, William

**Course Director email:** William.Royer@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Wednesdays 2p-3:30p and labs on Thursdays & Fridays at various times

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 719 - Cellular Biochemistry

**Class #: 3133**

Cellular Biochemistry takes an inside-out approach to teaching the molecular biological underpinnings of DNA replication, gene transcription, translation, metabolism, secretion and cell signaling.

**Prerequisites:**

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Biochemistry & Molecular Pharmacology

**Course Director:** Thompson, Paul

**Course Director email:** paul.thompson@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:** Dion, Keiko

**Course Administrator email:** Keiko.Dion@umassmed.edu

**Class Meeting Information:** Tuesdays & Thursdays 1p-2:30p

**Class Meeting Location:** LRB 916

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 725 - Cancer Biology

Class #: 3668

This course will provide students with a rigorous and comprehensive understanding of the mechanisms that will underlie the genesis and progression of human cancers. It will build on the basic science knowledge acquired in the Foundations Course and appreciation of the cancer as a disease. The salient topics to be covered include stem cells; oncogenes and tumor suppressor genes; tumor-host interactions, invasion, metastasis, and angiogenesis. A major theme of the course will be to integrate the biology of cancer with the clinical behavior of tumors.

**Prerequisites:** BBS720, Histology and Tumor Pathology is recommended but not required.

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Cancer Biology Interdisciplinary

**Course Director:** Mercurio, Arthur

**Course Director email:** Arthur.Mercurio@UMassmed.edu

**Co-Course Director:** Kelliher, Michelle

**Co-Course Director email:** michelle.kelliher@umassmed.edu

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** 2/5/2019-5/24/2019, Tuesdays & Fridays 9a-11a

**Class Meeting Location:** LRB 4th Floor Conference Room

**Required Textbooks:** Weinberg, Robert A. The Biology of Cancer, 2nd Edition. Garland Science, Taylor & Francis Group, 2014. ISBN: 978-0815342205

**Recommended Textbooks:**

**Additional notes:**

## BBS 738 - Eukaryotic Gene Expression

Class #: 3676

This course encompasses current topics in eukaryotic gene regulation including the discussion of current research articles. Within this context, we will also explore the role of epigenetic regulators in transcriptional control. Course goals include improving skills in reading, presenting, discussing, and critically analyzing research articles.

**Prerequisites:** Core course/Foundations Course

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Interdisciplinary

**Course Director:** Peterson, Craig

**Course Director email:** craig.peterson@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Please contact course director for meeting information

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**



## BBS 755 - Infection and Immune Response

Class #: 1525

Infectious disease is among the strongest agents of natural selection, and adaptations constituting the armament of pathogens and the defense of the host involve many of the most fascinating mechanisms in biology. This course presents a modern view of the fundamental biology of bacterial and viral disease in the context of molecular mechanisms of host defense. A detailed knowledge of cellular and molecular components of the immune system will be integrated with current understanding of microbial virulence strategies, to provide a working understanding of biological mechanisms important in health and disease. The course is organized as three integrated sections focusing on the fields of immunology, bacterial pathogenesis, and virology. Students will obtain a background for advanced course work in each of these disciplines. We will focus on three themes; (1) basic properties of microbes and the innate and adaptive immune defenses that have evolved to respond to them, (2) the interplay—in both dynamic and evolutionary sense—between host defenses and microbial virulence, and (3) the mechanisms of pathogenesis during infection. Comparative clinical and epidemiological pictures of selected diseases will be presented, and will serve as a framework for development of key molecular, cellular, and physiological concepts.

**Prerequisites:** GSBS Core Course Blocks I and II

**Credits:** 4 | **Grading:** Letter

**Associated Program(s):** Immunology & Microbiology

**Course Director:** Kowalik, Timothy

**Course Director email:** Timothy.Kowalik@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Tuesdays, Thursdays and Fridays 10:30a-12p

**Class Meeting Location:** Tuesdays & Thursdays AS8-1044; Fridays AS8-2042

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 755a - Introduction to Immunology

Class #: 2163

This is the immunology component of BBS755 Infection and Immune Response

**Prerequisites:** GSBS Core Course Blocks I and II

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Immunology & Microbiology

**Course Director:** Kowalik, Timothy

**Course Director email:** Timothy.Kowalik@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** 2/5/2019-3/26/2019, Tuesdays, Thursdays and Fridays 10:30a-12p

**Class Meeting Location:** Tuesdays & Thursdays AS8-1044; Fridays AS8-2042

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 755b - Introduction to Bacteriology

Class #: 2165

This is the bacteriology component of BBS755 Infection and Immune Response

**Prerequisites:** GSBS Core Course Blocks I and II

**Credits:** 1 | **Grading:** Letter

**Associated Program(s):** Immunology & Microbiology

**Course Director:** Kowalik, Timothy

**Course Director email:** Timothy.Kowalik@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** 3/28/2019-4/26/2019, Tuesdays, Thursdays and Fridays 10:30a-12p

**Class Meeting Location:** Tuesdays & Thursdays AS8-1044; Fridays AS8-2042

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 755c - Introduction to Virology

Class #: 2167

This is the virology component of BBS755 Infection and Immune Response

**Prerequisites:** GSBS Core Course Blocks I and II

**Credits:** 1 | **Grading:** Letter

**Associated Program(s):** Immunology & Microbiology

**Course Director:** Kowalik, Timothy

**Course Director email:** Timothy.Kowalik@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** 4/30/2019-5/30/2019, Tuesdays, Thursdays and Fridays 10:30a-12p

**Class Meeting Location:** Tuesdays & Thursdays AS8-1044; Fridays AS8-2042

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 760 - Introduction to Neuroscience

**Class #: 2169**

This course gives an overview of the fundamental principles of molecular, cellular, developmental and integrated neuroscience, including state-of-the-art experimental approaches. Required for all students in the Neuroscience Program. Optional advanced topics course for students in other programs.

**Prerequisites:** BBS 614 Foundations in Biomedical Science or permission from course coordinator

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Neuroscience

**Course Director:** Rittenhouse, Ann

**Course Director email:** Ann.Rittenhouse@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Tuesdays & Thursdays

3:00p-4:30p

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:** Kandel, Eric R., and Sarah Mack. Principles of Neural Science. McGraw-Hill Medical, 2014. ISBN: 978-0071390118

**Additional notes:**

## BBS 764 - Systems and Computational Biology

**Class #: 3700**

This is a lecture and paper-discussion based course covering a broad range of topics in Systems Biology and Computational biology.

**Prerequisites:** BBS 614 Foundations in Biomedical Science or coordinator's approval.

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Interdisciplinary Bioinformatics & Computational Biology

**Course Director:** Walhout, Marian

**Course Director email:** Marian.Walhout@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Mondays and Fridays 9.30a-11a

**Class Meeting Location:** TBD

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **BBS 783 - Genetic Basis of Behavior**

**Class #: 3677**

The genetics of behavior represents a focal point in contemporary neuroscience research. Genetic screens have been conducted to identify mutants affecting behavior in model systems, and this has converged with advances in understanding the neurobiological basis of behavior. This course will synthesize the state of the art regarding the genetic basis of behavior in model organisms (worms, flies and mice), including discussion of learning and memory, circadian rhythms, and social behaviors. Lectures will include descriptions of systems for identifying mutations, genes that have been identified, and how identification of these genes contributes to understanding the underlying neural mechanisms of behavior. The course format will include faculty lectures, student presentations and discussion of assigned readings.

**Prerequisites:** BBS 760 Introduction to Neuroscience or permission from course director

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Neuroscience

**Course Director:** Xiang, Yang

**Course Director email:** Yang.Xiang@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Wednesdays 3p-4:30p

**Class Meeting Location:** S2-309

**Required Textbooks:** None

**Recommended Textbooks:** None

**Additional notes:**

## BBS 786 - Molecular Basis of Disease

Class #: 2613

The objective of this course is to introduce GSBS graduate students to approaches used to understand the molecular causes of representative diseases and application of such knowledge toward the design and implementation of rational therapies. The course focuses on variety of diseases, including neurodegenerative, cardiovascular, and metabolic diseases. Interspersed among these topics will be guest speakers who will discuss specific aspects of the drug design process and novel approaches to therapy, including gene-, RNA-, and cell-based interventions. Class discussions will also help prepare students to participate effectively in team-oriented translational science. Students will write a short NIH-style research proposal addressing a disease mechanism or therapy development of interest and defend the proposal during the last two weeks of class.

**Prerequisites:** Core Course (may be concurrent)

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Translational Science Biochemistry & Molecular Pharmacology

**Course Director:** Mandrekar, Pranoti

**Co-Course Director:** Trivedi, Chinmay

**Course Administrator:**

**Course Director email:** pranoti.mandrekar@umassmed.edu

**Co-Course Director email:** chinmay.trivedi@umassmed.edu

**Course Administrator email:**

**Class Meeting Information:** Wednesdays 9a-12p

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:** Class Format: A list of scientific articles addressing the molecular and/or therapeutic aspects of disease will be provided at the beginning of each section of the course. Generally, the faculty will summarize the background material with the goal

## BBS 801 - RNA Biology Journal Club

Class #: 3067

A discussion of recent and classical papers covering various topics in RNA biology. Students will choose from a list of papers provided by course coordinators or from recent literature with approval from coordinators.

**Prerequisites:** Permission from course coordinator

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Interdisciplinary

**Course Director:** Ambros, Victor

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** victor.ambros@umassmed.edu

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:** 4th Tuesday of the month 10a-12p

**Class Meeting Location:** Biotech 2 - 2nd floor conference room

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:** Schedule and paper to be posted on the website:

<http://www.umassmed.edu/ambroslab/meetings/rna-biology-club-schedule/>

## BBS 808 - Journal Club in Neuroscience

**CANCELLED**

Neuroscience Journal Club gives students the opportunity to present and discuss exciting new papers in neuroscience in an informal setting. Student presentations occur weekly (Wednesday 12-1). Students are also expected to attend the Neuroscience Program Seminar series (Thursday 12:15-1:15) and to meet with external speakers (Thursday 1:40-2:20). Program in Neuroscience students are required to take 2 semesters of BBS 808. BBS 838 substitutes for 808.

**Prerequisites:** None

**Credits:** 2 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Neuroscience

**Course Director:** Weaver, David

**Course Director email:** david.weaver@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Wednesday 12p-1p & Thursdays 12:15p-2:30p. Organizational meeting Weds Feb. 6, 2019 @ 12 pm @ LRB-716. Last class May 28, 2019

**Class Meeting Location:** LRB 716

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:** Presenting students also meet with Course Director in advance of each presentation.

## BBS 810 - Graduate Student Seminar Series

**Class #: 2171**

This course provides students with the opportunity to develop public speaking skills necessary for scientific presentations. This experience will facilitate both formal and informal presentation of a student's own research. All BMP students will be registered in this course to satisfy the annual presentation requirement.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Biochemistry & Molecular Pharmacology

**Course Director:** Kobertz, William

**Course Director email:** William.Kobertz@Umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:** Instructor will advise students of start date.

## BBS 831 - Interprofessional Education in Clinical Neuroscience

**Class #: 3459**

GSBS students will participate in journal clubs with clinical residents and fellows, and participate in other clinically-focused activities typically outside the opportunities available to GSBS students.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Neuroscience

**Course Director:** Benjamin, Sheldon

**Course Director email:** Sheldon.Benjamin@umassmed.edu

**Co-Course Director:** Weaver, David

**Co-Course Director email:** david.weaver@umassmed.edu

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Mondays 12-1p and Thursdays 2:30-3:30p and other times as arranged.

**Class Meeting Location:** S4-325

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 834 - Immunobiology and Virology Spring Seminar Series

**Class #: 2173**

Leading researchers present a weekly seminar on a basic or clinical immunology and virology topic. Prior to the seminar, students read papers suggested by the seminar speaker and discuss the papers in class. Following the seminar, graduate students meet with the speaker for a discussion of the formal seminar. This course surveys the most important areas of basic and clinical immunology and virology, including, but not limited to, antigen presentation; gene rearrangements; and expression of the genes for antigen receptors, immune tolerance, cytokines, immune cell development, immunodeficiency diseases, autoimmune diseases, human immune system malignancies; and immune response to infectious agents such as viruses, parasites and bacteria.

**Prerequisites:** BBS755, Infection and Immune Response, BBS821, Molecular and Cellular Immunology

**Credits:** 2 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Immunology & Microbiology

**Course Director:** Silverman, Neal

**Course Director email:** neal.silverman@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Tuesdays 3p-4p and Thursdays 3p-5p

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 848 - Tutorial in Neuroscience

Class #: 2681

Tutorials offer the opportunity for one student or a small group of students to discuss research in a specific research area, or a series of selected papers, with one or more faculty members. The small group format allows extensive discussion and interaction. This course number allows faculty and students the flexibility to develop a syllabus of their making. The proposed syllabus must be approved by the Neuroscience Program director. Tutorials are arranged with individual faculty members. Students may re-enroll for multiple tutorials.

**Prerequisites:** Permission from Neuroscience Program Director

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Neuroscience

**Course Director:** Weaver, David

**Course Director email:** David.Weaver@UMassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** To be arranged with individual faculty member

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:** Expected effort for one credit is 15 contact hours

## BBS 850 - Laboratory Rotation

Class #: See class number list

Laboratory rotations are defined periods of research experience under the direction of a faculty member. They are intended to familiarize the student with concepts and techniques in several areas of research and to assist the student in evaluating research laboratories and projects that might be developed into a dissertation project. The student will participate in an ongoing research project; gain familiarity with concepts underlying the research; acquire a working knowledge of techniques used in the research; and write a report and present an oral summary of the results of the research.

**Prerequisites:** None

**Credits:** Variable | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** GSBS Full Faculty

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**



## BBS 860 - BBS Qualifying Exam

**Class #: Group Enrolled**

Students are required to register for this course in the fall semester of the academic year in which they are to pass their Qualifying Examination.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** Lane, Mary Ellen

**Course Director email:** maryellen.lane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## BBS 865 - BBS TRAC Meeting

**Class #: Group Enrolled**

All graduate students are required to have at least one Thesis Research Advisory Committee (TRAC) meeting each academic year. After passing their Qualifying Examination and selection of their TRAC, students are required to register for this course each fall semester until their Dissertation Advisory Committee is formed.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** Lane, Mary Ellen

**Course Director email:** maryellen.lane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **BBS 870 - Prequalifying Research**

**Class #: See class number list**

This course is for students who have selected a program and thesis advisor but who have not yet passed the Qualifying Examination.

**Prerequisites:** None

**Credits:** 9 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** Student's thesis advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **BBS 900 - Thesis Research**

**Class #: See class number list**

Students register for Thesis Research fall term of year three of the program, after passing the Qualifying Exam.

**Prerequisites:** None

**Credits:** 12 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** Student's thesis advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **BBS 990 - Graduate Research**

**Class #: See class number list**

Students register for Graduate Research fall term of year four in the PhD Program and will continue to register each semester until they complete all remaining requirements.

**Prerequisites:** None

**Credits:** 0 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Basic & Biomedical Sciences

**Course Director:** Student's thesis advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## Clinical & Translational Science Courses

### CTS 602B - Advanced Epidemiology and Research Methods

**Class #: 2809**

The purpose of this class is to learn advanced epidemiologic techniques, to learn how and when to apply them, and to learn to design rigorous epidemiologic studies. Students will gain experience in reading the primary epidemiologic methods literature. Course objectives will be met through class lecture, class discussion, problem sets, exams, application of selected principles to one's research and the development of a mini-lecture.

**Prerequisites:** CTS602A, CTS603A, CTS603B (corequisite)

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Lapane, Kate

**Course Director email:** kate.lapane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Tuesdays & Thursdays 9a-10:30a

**Class Meeting Location:** AS6-1073

**Required Textbooks:** Rothman, K. J., Greenland, S., & Lash, T. L. (n.d.). Modern epidemiology. ISBN: 978-1451190052 | Savitz, D. A., & Wellenius, G. A. (2016). Interpreting epidemiologic evidence: connecting research to applications. New York, NY, United States of America:

**Recommended Textbooks:**

**Additional notes:**

### CTS 603B - Statistical Methods for Survival and Longitudinal Data Analysis

**Class #: 2785**

Course provides a foundation for statistical thinking in clinical and population health research involving time to event data and longitudinal data. Students will learn statistical models used for estimation and inference; understand advanced statistical techniques; and develop modeling strategies and analysis plans for specific research questions.

**Prerequisites:** CTS603A

**Credits:** 4 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Baek, Jonggyu

**Course Director email:** Jonggyu.Baek@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Tuesdays & Thursdays 10:30a-12p, Wednesdays 3:30p-5p

**Class Meeting Location:** Tuesdays & Thursdays AS8-2042, Wednesdays AS8-1044

**Required Textbooks:** Kleinbaum, D. G., & Klein, M. (2012). Survival analysis: a self-learning text. New York, NY: Springer. ISBN: 978-1441966452 | Fitzmaurice, G. M., Laird, N. M., & Ware, J. H. (2011). Applied Longitudinal Analysis. Hoboken: Wiley. ISBN: 978-0-470-38027-7

**Recommended Textbooks:**

**Additional notes:**

## CTS 609 - Design of Clinical Trials

Class #: 3625

The course considers the scientific and practical considerations in the design and conduct of observational studies and clinical trials. Topics to be covered include: study designs (cohort studies, case-control studies and clinical trials); confounding and bias; ethical considerations; patient recruitment and retention; interim analysis and safety monitoring; and analysis and reporting. Course objectives will be met through a combination of lecture, discussion and development of a proposal in the student's area of interest.

**Prerequisites:** ICTS605A or permission from instructor

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Barton, Bruce

**Course Director email:** bruce.barton@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Thursdays 12:30-2:30

**Class Meeting Location:** AS7-2069

**Required Textbooks:** Fundamentals of Clinical Trials 4th edition. Larry Friedman, Curt Furberg, and Dave DeMets. Edition: 4th ed. 2010. ISBN: 978-1-4419-1585-6

**Recommended Textbooks:**

**Additional notes:**

## CTS 611 - Scientific Writing

Class #: 3678

This course teaches students how to develop a peer reviewed scientific manuscript, through the review of elements of style, authorship and extent of information that needs to be incorporated into a scientific research paper. Students will learn how to develop the elements that go into a successful scientific manuscript, submit an article for peer review and respond to reviewers' concerns. During each session, students will critique the work of others enrolled in the course to obtain hands on experience in the write-up of the introduction, methods, results and discussion sections of a manuscript. This course will also teach students how to put together a successful oral, as well as poster, scientific presentation.

**Prerequisites:** None

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Goldberg, Robert

**Course Director email:** robert.goldberg@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Wednesdays 8a - 10a

**Class Meeting Location:** AS6-2069

**Required Textbooks:** Byrne, D. W. (1998). Publishing your medical research paper: What they don't teach in medical school. Baltimore: Williams & Wilkins. ISBN: 0-683-30074-1 Browner, W. S. (2006). Publishing and presenting clinical research. Philadelphia, PA: Lippincott Williams

**Recommended Textbooks:**

**Additional notes:**

## CTS 620 - Clinical & Translational Research Seminar

**CANCELLED**

This course introduces Clinical Translational Research Pathway students in the optional elective in SOM to principles, theory, background and skills required for clinical and translational research. Seven required seminars plus attending a Human Subjects IRB meeting occur in MS1 and there are 6 additional contact hours and a paper required in MS2. Thus course requires participation in approximately 22 contact hours beyond medical school coursework, plus the 10-20 hour CITI certificate.

**Prerequisites:** successful completion of SOM Clinical Translational Research Pathway MS1 and MS2 requirements and admission to MSCI program

**Credits:** 2 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MS Clinical Investigation

**Course Director:** Kiefe, Catarina

**Course Director email:** catarina.kiefe@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Please contact course director for meeting information

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 721 - Infectious Disease Epidemiology

**CANCELLED**

This course is designed to provide a historical perspective on infectious disease epidemiology as a basis for understanding current global health research and programs aimed at disease control, elimination, eradication and extinction.

A passing grade will be based on class participation, discussing required readings and a final written (take-home) report.

**Prerequisites:** CTS605A or permission from instructor

**Credits:** 2 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation Immunology & Microbiology

**Course Director:** Moormann, Ann

**Course Director email:** ann.moormann@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Please contact course director for meeting information

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 728 - Psychiatric Epidemiology

Class #: 3675

This course will provide students with fundamental knowledge of psychiatric epidemiology. We will cover epidemiological principles specific to psychiatric epidemiology such as assessment and diagnostic validity in the absence of a gold standard. Students will gain knowledge of the epidemiology of major psychiatric disorders across the lifespan.

**Prerequisites:** At least one semester each of epidemiology and biostatistics or permission of the course director

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Ulbricht, Christine

**Course Director email:** christine.ulbricht@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Wednesdays 10a-12p

**Class Meeting Location:** AS6-1073

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 732 - Qualitative Methods for Health Research

Class #: 3626

This course examines uses of qualitative methods in mixed-qualitative or mixed-qualitative/quantitative health studies. Essential qualitative research components are explored: study community, theory, rigor, research questions, data collection methods, writing open-ended questions, sampling, data analysis, publishing and writing proposals. Students apply concepts covered in class by collecting data for written assignments.

**Prerequisites:** None

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Dube, Catherine

**Course Director email:** catherine.dube@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Thursdays 2:30p-4:30p

**Class Meeting Location:** AS6-1073 or AS7-2072

**Required Textbooks:** Qualitative Research: Bridging the Conceptual, Theoretical, and Methodological .

Sharon M. Ravitch, Nicole C. Mittenfelner, Carl. ISBN-13: 978-1483351742

ISBN-10: 1483351742

**Recommended Textbooks:**

**Additional notes:**

## **CTS 736 - Conducting Implementation Research: Designing and Executing Studies for Moving Research into Practice in Health Care and Community Settings**

**Class #: 3033**

This class builds on the foundation offered in CTS 735 regarding salient concepts and theories in the field of implementation science to examine key issues in the design and conduct of implementation research. Students will learn about prominent study designs that characterize many implementation trials, the important role that formative assessment plays in informing implementation efforts, and the issues inherent in identifying and measuring appropriate implementation processes and outcomes.

**Prerequisites:** CTS 735 - or instructor permission

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Hogan, Timothy

**Course Director email:** timothy.hogan@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Class Tuesdays 1p-3p, Seminars Tuesdays 3:30p-4:30p

**Class Meeting Location:** AS8-2069

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **CTS 799 - Independent Study**

**Class #: See class number list**

The purpose of an independent study elective is to gain in depth knowledge of a specific topic by working closely with a faculty member with expertise in that area. Typically independent studies cover areas not addressed in the core curriculum and advanced topics or other electives. However, the level of effort and objectives for an independent study must be equivalent to that of a regular three-credit course. The student and sponsoring faculty member must propose a framework and outcome for the independent study, in the semester prior to the semester in which the student will be enrolled, to the program director for prior approval.

**Prerequisites:** Permission of Associate Dean for CPHR & course coordinator.

**Credits:** 3 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Lapane, Kate

**Course Director email:** kate.lapane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Please contact course director for meeting information

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**



## CTS 802 - Journal Club

**Class #: 2761**

This journal club provides a forum in which students will discuss current articles in the peer reviewed literature and will be introduced to advanced epidemiologic and analytic methods. Through readings, presentations and discussion, students will deepen their understanding of methods critical for clinical investigation and strengthen their data presentation and writing skills.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Goldberg, Robert

**Course Director email:** robert.goldberg@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Tuesdays 12p-1p

**Class Meeting Location:** AS6-1073

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 850 - Research Assistantship

**Class #: See class number list**

Research rotations are defined periods of research experience under the direction of a faculty member. They are intended to familiarize the student with the theory, background, concepts and techniques in several areas of research and to assist the student in evaluating projects and areas that might be developed into a dissertation project. The student will participate in an ongoing research project; gain familiarity with a field of study; acquire a working knowledge of techniques used in the research; and write a report and make an oral presentation on the results of their work.

**Prerequisites:** None

**Credits:** 4 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research

**Course Director:** Student's advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 855 - Research Seminar

**CANCELLED**

This is an ongoing seminar series which meets on a monthly basis throughout the academic year that will be led by individual senior scientists who will discuss their clinical, public health and translational science research. This seminar series will provide trainees with exposure to a wide variety of potential research mentors as well as topic areas to further explore for their thesis research and beyond.

**Prerequisites:**

**Credits:** 0 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Goldberg, Robert

**Course Director email:** robert.goldberg@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Please contact course director for meeting information

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 860A - Written Qualifying Exam

**Class #: 3679**

This course number is used for students sitting for the written qualifying exam—an evaluation milestone typically conducted in Spring of their second year of graduate study.

**Prerequisites:**

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research

**Course Director:** Lapane, Kate

**Course Director email:** kate.lapane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 860B - Oral Qualifying Exam

**Class #: 2929**

This course number is used for students who will defend their dissertation proposal. Students should register for this either in the Spring or Summer of their second year of graduate studies.

**Prerequisites:**

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research

**Course Director:** Lapane, Kate

**Course Director email:** kate.lapane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 865 - CTS TRAC Meeting

**Class #: 2947**

All graduate students are required to have a TRAC meeting each academic year in the Fall. After passing their Qualifying Exam in January of the second year, and the Thesis Proposal Defense in the Spring or Summer of second year, students are required to register for this course each Fall semester until their Dissertation Examination Committee is formed.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Lapane, Kate

**Course Director email:** kate.lapane@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:** robert.goldberg@umassmed.edu

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 870 - Pre-Thesis Research

**Class #: See class number list**

This course is for students who have selected a program and thesis advisor but who have not yet passed their Qualifying Examination.

**Prerequisites:** None

**Credits:** Variable | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Student's thesis advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 875 - Grant Writing

**Class #: 2883**

The purpose of this course is to allow students to develop their dissertation proposals in a systematic fashion under faculty guidance. The dissertation proposal will be in the format of an NIH R03 grant proposal, and at the end of the semester the student is expected to have completed the dissertation proposal. As such, the course is designed to walk the student through each of the NIH grant proposal requirements and expectations. The course will include detailed reviews of the grant process, participation in a mock proposal review session and the completion of each of the written grant components. It is expected that students will involve their mentor and three-member Thesis Research Advisory Committee (TRAC) in making decisions regarding their proposal and receive their input throughout the semester, so that the student will be prepared to defend the proposal soon after the semester is completed. The course will also be useful as an introduction to NIH proposal writing.

**Prerequisites:** CTS702, CTS602A, CTS603A or permission of instructor

**Credits:** 3 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Lemon, Stephenie

**Course Director email:** Stephenie.Lemon@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:** Wednesdays 1p-3p

**Class Meeting Location:** AS8-2069

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 900 - Thesis Research

**Class #: See class number list**

Students register for Thesis Research after passing a Qualifying Examination. They will take Thesis Research each semester until they have accumulated 90 credits.

**Prerequisites:** None

**Credits:** Variable | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Student's thesis advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CTS 990 - Graduate Research

**Class #: See class number list**

Students register for Graduate Research after completing the requisite number of credits to meet graduation requirements. They will take this course each semester until they complete all remaining requirements.

**Prerequisites:** None

**Credits:** 0 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** Clinical & Population Health Research MS Clinical Investigation

**Course Director:** Student's thesis advisor

**Course Director email:** N/A

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## Health Sciences Preparatory Program Courses

### HSP 502B - Medical Physiology and Histology Part B

**Class #: 1005**

The goals of the course are to provide: a study of basic human physiology, which is the biological study of the functions of living organisms and their parts; a study of the microscopic anatomy of the cellular organization and structure of individual tissues and organ systems.

**Prerequisites:** BWCT, HSP502A

**Credits:** 1 | **Grading:** Letter

**Associated Program(s):** Health Sciences Preparatory Program

**Course Director:** Jonassen, Julie

**Course Director email:** julie.jonassen@umassmed.edu

**Co-Course Director:** Das, Manas

**Co-Course Director email:** manas.das@umassmed.edu

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:** Berne, R. M., Levy, M. N., Koeppen, B. M., & Stanton, B. A. (2018). Berne & Levy physiology. Philadelphia: Elsevier. ISBN: 9780323393942

**Additional notes:**

### HSP 503 - Epidemiology/Biostatistics

**Class #: 1011**

The primary goal of the course is to provide students with a core set of concepts and skills in epidemiology and biostatistics that are required to critically evaluate the medical literature, important components of evidence-based medicine.

**Prerequisites:**

**Credits:** 3 | **Grading:** Letter

**Associated Program(s):** Health Sciences Preparatory Program

**Course Director:** Epstein, Mara

**Course Director email:** mara.epstein@umassmed.edu

**Co-Course Director:**

**Co-Course Director email:**

**Course Administrator:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:** Dawson, B. (n.d.). Basic & clinical biostatistics, 4th ed. Mc Graw Hil: 2004. ISBN: 978-0071410175

**Additional notes:**

This course includes the following three elements:

**Academic Coaching:** Sessions with education specialist and student mentors (three hours contact/wk – can be in small groups and one-on-one sessions based on students' needs) to evaluate individual learning styles, adapt/develop study skills, test prep, exam review, error analysis, time management;

**Group study sessions:** (two hours/wk) – 1 hour student group discussion/preparation; 1 hour with course-specific faculty, alternating weekly;

**HSPP advisor meetings:** (30 minutes/wk) - individual (one per month) and group meeting (one per month) with HSPP advisors. Specific activities include MCAT prep, interview skills.

**Prerequisites:**

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Health Sciences Preparatory Program

**Course Director:** Hines, Deborah Harmon

**Co-Course Director:** Knight, Kendall

**Course Administrator:**

**Course Director email:** deborah-harmon.hines@umassmed.edu

**Co-Course Director email:** kendall.knight@umassmed.edu

**Course Administrator email:**

**Class Meeting Information:** Meeting details are communicated monthly to students

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## HSP 505 - Clinical Medicine

**Class #: 1007**

This is two-credit shadowing experience in outpatient and inpatient settings, shadowing a physician and other team members – approximately seven 3-hour clinical sessions; assigned reading of two novels and other appropriate readings with small group discussions on becoming a physician and the U.S. health care system and related assignments and presentations to the class.

**Prerequisites:**

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Health Sciences Preparatory Program

**Course Director:** Garcia, Maria

**Co-Course Director:** Polackal, Ninan

**Course Administrator:** Torres Gutierrez, Maria

**Course Director email:** Maria.garciaMD@umassmed.edu

**Co-Course Director email:**

Ninan.Polackal@umassmemorial.org

**Course Administrator email:**

Maria.TorresGutierrez@umassmed.edu

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## HSP 506 - Clinical Immersion

**Class #: 1009**

Immersion in research or community project that allows students to learn and apply basic biostatistics knowledge and prepare for the Spring Epi/Biostats core course; Fall will be focused on engaging in the experience with limited small group sessions; Spring will involve less engagement with immersion site with a focus on writing and presenting work.

**Prerequisites:**

**Credits:** 2 | **Grading:** Letter

**Associated Program(s):** Health Sciences Preparatory Program

**Course Director:** Person, Sharina

**Co-Course Director:** Allison, Jeroan

**Course Administrator:**

**Course Director email:** sharina.person@umassmed.edu

**Co-Course Director email:** jeroan.allison@umassmed.edu

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**



## MD/PhD Courses

### MDP 740A - Developing Solutions To Research Problems A - Year One

**Class #: 2965**

**Course Goals:** The goal for the course is to engage MD-PhD students in the critical thinking skills required to perform biomedical research, in a manner that enables their intellectual contribution to the University's academic and research functions. The course will examine specific questions of relevance in medicine, and explore how these questions are addressed from multiple scientific perspectives, (e.g., epidemiological, population based, animal model research, cellular and molecular mechanisms). The course will be mostly based on critical analysis of primary literature. Faculty will provide brief background material in the form of lectures, to enable analysis of the primary research papers. Students will discuss papers in small teams and within the whole group. Each section will culminate with the presentation by students of an original research proposal on the specific question being studied.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MD/PhD

**Course Director:** Corvera, Silvia

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** [silvia.corvera@umassmed.edu](mailto:silvia.corvera@umassmed.edu)

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **MDP 740B - Developing Solutions To Research Problems B - Year Two**

**Class #: See class number list**

**Course Goals:** The goal for the course is to expose MD/PhD students to areas of basic and translational research, and to the knowledge and skills necessary to conduct research in these areas in a manner that enables their intellectual contribution to the University's academic and research functions. To meet this goal, the student will work directly with a selected member of the research faculty for a minimum of one hour per week over the course of the semester (15 hours total). The focus and experimental methodologies of the investigators research will be explored in-depth through analysis of the primary literature and participation in individual and/or group discussion.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MD/PhD

**Course Director:** Corvera, Silvia

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** [silvia.corvera@umassmed.edu](mailto:silvia.corvera@umassmed.edu)

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## **MDP 740C - Developing Solutions To Research Problems C - Year Three**

**Class #: 2967**

**Course Goals:** The goal for the course is to expose MD-PhD students to areas of basic and translational research, and to the knowledge skills necessary to conduct research in these areas in a manner that enables their intellectual contribution to the University's academic and research functions. To meet this goal, the student will work directly with a selected member of the research faculty, which can include but is not limited to their PhD thesis mentor, for a minimum of one hour per week over the course of the semester (15 hours total). They will discuss experimental strategies to address questions of basic, clinical, and/or translation importance. These can include, but are not limited to, work that advances the student's personal research toward publication or presentation.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MD/PhD

**Course Director:** Corvera, Silvia

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** [silvia.corvera@umassmed.edu](mailto:silvia.corvera@umassmed.edu)

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## MDP 741 - Introduction to Translational Medicine

**Class #: 2961**

**Course Goals:** The MD/PhD program stresses the importance of clinical involvement throughout the graduate years. The first goal of this course is to provide students with a continuous link to clinical skills and to familiarize students with different clinical settings. Sessions should reinforce clinical skills learned from the first two years of the medical curriculum plus the 16 weeks of clerkship in Care of Family and Care of Adults prior to research studies. The second goal is to introduce clinicians and potential mentors to the MD/PhD students. The third goal of this section of the course is to ease the transition back to the clinical years of medical school. Students are encouraged to work with physician scientists that will help them to get hands-on experience with the day-to-day work of physician scientists.

**Prerequisites:** Open only to MD/PhD Students in PhD Portion of Degree

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MD/PhD

**Course Director:** Corvera, Silvia

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** [silvia.corvera@umassmed.edu](mailto:silvia.corvera@umassmed.edu)

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## MDP 744 - MD/PhD Learning Communities

**Class #: 2987**

Provides information about School of Medicine Learning Communities (LC) including house member lists, mentor-mentee assignments, LC student leadership, career planning resources, information for planning clerkships and more. This is important for all the MD/PhD students during both the School of Medicine and GSBS years.

**Prerequisites:** None

**Credits:** 0 | **Grading:** Not graded

**Associated Program(s):** MD/PhD

**Course Director:** Szabo, Gyongyi

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** [Gyongyi.Szabo@umassmed.edu](mailto:Gyongyi.Szabo@umassmed.edu)

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## MDP 800 - MD/PhD Seminar

**Class #: 2963**

This seminar series is a semi-monthly event, organized by the MD/PhD students, and participation is required for all years in the program. The seminar assists students in developing communications competency through these presentations. Each session, two upper level graduate students present their research project. A moderator will maintain the 20 minute timeframe and facilitate the discussion.

**Prerequisites:** None

**Credits:** 1 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MD/PhD

**Course Director:** Michelson, Anne

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** anne.michelson@umassmed.edu

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## MDP 990 - MD/PhD Graduate Research for Students Post-Dissertation

**Class #: 1015**

Students enrolled in the MD/PHD Program who have completed their requirements for the PhD degree will register for this GSBS course each semester while completing their School of Medicine requirements. Students enrolled in this course will participate in and assist with the teaching/evaluation of the MDP Seminar course (MDP800). This course is the MD/PhD equivalent of the GSBS course - GR900, Graduate Research. All students must be in good standing in the MD/PhD program to pass.

**Prerequisites:** Completion of all the PhD requirements in the Graduate School of Biomedical Sciences.

**Credits:** 0 | **Grading:** Pass/Marginal Pass/Fail

**Associated Program(s):** MD/PhD

**Course Director:** Michelson, Anne

**Co-Course Director:**

**Course Administrator:**

**Course Director email:** anne.michelson@umassmed.edu

**Co-Course Director email:**

**Course Administrator email:**

**Class Meeting Information:**

**Class Meeting Location:**

**Required Textbooks:**

**Recommended Textbooks:**

**Additional notes:**

## CLASS NUMBERS

### Basic & Biomedical Sciences Non-Research Class Numbers

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3071	BBS	603	1	Respondent Res. Post Doc.Sch	Imbalzano	Anthony
3621	BBS	717	1	Structural Biology	Royer	William
3133	BBS	719	1	Cellular Biochemistry	Thompson	Paul
3668	BBS	725	1	Cancer Biology	Mercurio	Arthur
3676	BBS	738	1	Eukaryotic Gene Expression	Peterson	Craig
1525	BBS	755	1	Infection and Immune Response	Kowalik	Timothy
2163	BBS	755A	1	Introduction to Immunology	Kowalik	Timothy
2165	BBS	755B	1	Introduction to Bacteriology	Kowalik	Timothy
2167	BBS	755C	1	Introduction to Virology	Kowalik	Timothy
2169	BBS	760	1	Introduction to Neuroscience	Rittenhouse	Ann
3700	BBS	764	1	Systems and Computational Biology	Walhout	Marian
3677	BBS	783	1	Genetic Basis of Behavior	Xiang	Yang
2613	BBS	786	1	Molecular Basis of Disease	Mandrekar	Pranoti
3067	BBS	801	1	RNA Biology Journal Club	Ambros	Victor
3624	BBS	808	1	Journal Club in Neuroscience	Weaver	David
2171	BBS	810	1	Grad. Student Seminar Series	Kobertz	William
3459	BBS	831	1	Interprof. Edu. in Clin. Neuro	Benjamin	Sheldon
2173	BBS	834	1	Immunobio & Virology Spr Sem	Silverman	Neal
2681	BBS	848	1	Tutorial in Neuroscience	Weaver	David

### Basic & Biomedical Sciences Research Class Numbers

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2621	BBS	850	L1	Laboratory Rotation	Alkema	Mark
2623	BBS	850	L2	Laboratory Rotation	Alkema	Mark
3215	BBS	850	L1	Laboratory Rotation	ANACLET	Christelle
3217	BBS	850	L2	Laboratory Rotation	ANACLET	Christelle
2737	BBS	850	L1	Laboratory Rotation	Aroian	Raffi

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2739	BBS	850	L2	Laboratory Rotation	Aroian	Raffi
3694	BBS	850	L1	Laboratory Rotation	Bach	Ingolf
3695	BBS	850	L2	Laboratory Rotation	Bach	Ingolf
1053	BBS	850	L1	Laboratory Rotation	Baehrecke	Eric
1289	BBS	850	L2	Laboratory Rotation	Baehrecke	Eric
2677	BBS	850	L1	Laboratory Rotation	Behar	Samuel
2679	BBS	850	L2	Laboratory Rotation	Behar	Samuel
2419	BBS	850	L1	Laboratory Rotation	Benanti	Jennifer
2423	BBS	850	L2	Laboratory Rotation	Benanti	Jennifer
1055	BBS	850	L1	Laboratory Rotation	Berg	Leslie
1291	BBS	850	L2	Laboratory Rotation	Berg	Leslie
2539	BBS	850	L1	Laboratory Rotation	Bergmann	Andreas
2541	BBS	850	L2	Laboratory Rotation	Bergmann	Andreas
1267	BBS	850	L1	Laboratory Rotation	Bosco	Daryl
1505	BBS	850	L2	Laboratory Rotation	Bosco	Daryl
3159	BBS	850	L1	Laboratory Rotation	BYRNE	Alexandra Catherine
3161	BBS	850	L2	Laboratory Rotation	BYRNE	Alexandra Catherine
1061	BBS	850	L1	Laboratory Rotation	Cantor	Sharon
1297	BBS	850	L2	Laboratory Rotation	Cantor	Sharon
1065	BBS	850	L1	Laboratory Rotation	Castilla	Lucio
1301	BBS	850	L2	Laboratory Rotation	Castilla	Lucio
1075	BBS	850	L1	Laboratory Rotation	Czech	Michael
1311	BBS	850	L2	Laboratory Rotation	Czech	Michael
1077	BBS	850	L1	Laboratory Rotation	Davis	Roger
1313	BBS	850	L2	Laboratory Rotation	Davis	Roger
3696	BBS	850	L1	Laboratory Rotation	Donahue	John
3697	BBS	850	L2	Laboratory Rotation	Donahue	John
1083	BBS	850	L1	Laboratory Rotation	EMERY	Patrick
1319	BBS	850	L2	Laboratory Rotation	EMERY	Patrick
2339	BBS	850	L1	Laboratory Rotation	Fazzio	Thomas

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2421	BBS	850	L2	Laboratory Rotation	Fazzio	Thomas
1091	BBS	850	L1	Laboratory Rotation	Francis	Michael
1327	BBS	850	L2	Laboratory Rotation	Francis	Michael
2441	BBS	850	L1	Laboratory Rotation	Futai	Kensuke
2443	BBS	850	L2	Laboratory Rotation	Futai	Kensuke
2331	BBS	850	L1	Laboratory Rotation	Gao	Fen-Biao
2393	BBS	850	L2	Laboratory Rotation	Gao	Fen-Biao
2567	BBS	850	L1	Laboratory Rotation	Garber	Manuel
2569	BBS	850	L2	Laboratory Rotation	Garber	Manuel
1107	BBS	850	L1	Laboratory Rotation	Green	Michael
1343	BBS	850	L2	Laboratory Rotation	Green	Michael
3547	BBS	850	L1	Laboratory Rotation	GREER	Paul Lieberman
3549	BBS	850	L2	Laboratory Rotation	GREER	Paul Lieberman
2283	BBS	850	L1	Laboratory Rotation	Guertin	David
2285	BBS	850	L2	Laboratory Rotation	Guertin	David
2451	BBS	850	L1	Laboratory Rotation	Han	Gang
2437	BBS	850	L2	Laboratory Rotation	Han	Gang
3171	BBS	850	L1	Laboratory Rotation	Haynes	Cole
3173	BBS	850	L2	Laboratory Rotation	Haynes	Cole
1123	BBS	850	L1	Laboratory Rotation	Kang	Joonsoo
1359	BBS	850	L2	Laboratory Rotation	Kang	Joonsoo
1125	BBS	850	L1	Laboratory Rotation	Kaufman	Paul
1361	BBS	850	L2	Laboratory Rotation	Kaufman	Paul
2647	BBS	850	L1	Laboratory Rotation	Kelch	Brian
2649	BBS	850	L2	Laboratory Rotation	Kelch	Brian
1127	BBS	850	L1	Laboratory Rotation	Kelliher	Michelle
1363	BBS	850	L2	Laboratory Rotation	Kelliher	Michelle
2457	BBS	850	L1	Laboratory Rotation	Khanna	Hemant
2321	BBS	850	L2	Laboratory Rotation	Khanna	Hemant
1037	BBS	850	L1	Laboratory Rotation	Khvorova	Anastasia

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1039	BBS	850	L2	Laboratory Rotation	Khvorova	Anastasia
3097	BBS	850	L1	Laboratory Rotation	Kim	Dohoon
3099	BBS	850	L2	Laboratory Rotation	Kim	Dohoon
1265	BBS	850	L1	Laboratory Rotation	Kim	Jason
1503	BBS	850	L2	Laboratory Rotation	Kim	Jason
2497	BBS	850	L1	Laboratory Rotation	Korostelev	Andrei
2435	BBS	850	L2	Laboratory Rotation	Korostelev	Andrei
1139	BBS	850	L1	Laboratory Rotation	Lawrence	Jeanne
1375	BBS	850	L2	Laboratory Rotation	Lawrence	Jeanne
1141	BBS	850	L1	Laboratory Rotation	Lawson	Nathan
1377	BBS	850	L2	Laboratory Rotation	Lawson	Nathan
2657	BBS	850	L1	Laboratory Rotation	Lee	Michael
2659	BBS	850	L2	Laboratory Rotation	Lee	Michael
1145	BBS	850	L1	Laboratory Rotation	Levitz	Stuart
1381	BBS	850	L2	Laboratory Rotation	Levitz	Stuart
1149	BBS	850	L1	Laboratory Rotation	Li	Hong-Sheng
1385	BBS	850	L2	Laboratory Rotation	Li	Hong-Sheng
1263	BBS	850	L1	Laboratory Rotation	Li	Shaoguang
1501	BBS	850	L2	Laboratory Rotation	Li	Shaoguang
3551	BBS	850	L1	Laboratory Rotation	Li	Wenjun
3553	BBS	850	L2	Laboratory Rotation	Li	Wenjun
2559	BBS	850	L1	Laboratory Rotation	Luban	Jeremy
2561	BBS	850	L2	Laboratory Rotation	Luban	Jeremy
2543	BBS	850	L1	Laboratory Rotation	Maehr	Rene
2545	BBS	850	L2	Laboratory Rotation	Maehr	Rene
1159	BBS	850	L1	Laboratory Rotation	Massi	Francesca
1395	BBS	850	L2	Laboratory Rotation	Massi	Francesca
1165	BBS	850	L1	Laboratory Rotation	Melikian	Haley
1401	BBS	850	L2	Laboratory Rotation	Melikian	Haley
1169	BBS	850	L1	Laboratory Rotation	Mercurio	Arthur



Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1405	BBS	850	L2	Laboratory Rotation	Mercurio	Arthur
1171	BBS	850	L1	Laboratory Rotation	Miller	Stephen
1407	BBS	850	L2	Laboratory Rotation	Miller	Stephen
3219	BBS	850	L1	Laboratory Rotation	MITCHELL	Amir Zadok
3221	BBS	850	L2	Laboratory Rotation	MITCHELL	Amir Zadok
1523	BBS	850	L1	Laboratory Rotation	Moormann	Ann
2367	BBS	850	L2	Laboratory Rotation	Moormann	Ann
3401	BBS	850	L1	Laboratory Rotation	Muller	Christian
2515	BBS	850	L2	Laboratory Rotation	Muller	Christian
1177	BBS	850	L1	Laboratory Rotation	Munson	Maryann
1413	BBS	850	L2	Laboratory Rotation	Munson	Maryann
2523	BBS	850	L1	Laboratory Rotation	Ortiz-Miranda	Sonia
2525	BBS	850	L2	Laboratory Rotation	Ortiz-Miranda	Sonia
3627	BBS	850	L1	Laboratory Rotation	PAI	Athma Anjali
3628	BBS	850	L2	Laboratory Rotation	PAI	Athma Anjali
1187	BBS	850	L1	Laboratory Rotation	Peterson	Craig
1423	BBS	850	L2	Laboratory Rotation	Peterson	Craig
2459	BBS	850	L1	Laboratory Rotation	Punzo	Claudio
2343	BBS	850	L2	Laboratory Rotation	Punzo	Claudio
1193	BBS	850	L1	Laboratory Rotation	Rando	Oliver
1429	BBS	850	L2	Laboratory Rotation	Rando	Oliver
3167	BBS	850	L1	Laboratory Rotation	REBOLDI	Andrea
3169	BBS	850	L2	Laboratory Rotation	REBOLDI	Andrea
1195	BBS	850	L1	Laboratory Rotation	Rhind	Nicholas
1433	BBS	850	L2	Laboratory Rotation	Rhind	Nicholas
1197	BBS	850	L1	Laboratory Rotation	Richter	Joel
1435	BBS	850	L2	Laboratory Rotation	Richter	Joel
1199	BBS	850	L1	Laboratory Rotation	Rivera Perez	Jaime
1437	BBS	850	L2	Laboratory Rotation	Rivera Perez	Jaime
1201	BBS	850	L1	Laboratory Rotation	Rock	Kenneth

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1439	BBS	850	L2	Laboratory Rotation	Rock	Kenneth
1213	BBS	850	L1	Laboratory Rotation	Sassetti	Christopher
1451	BBS	850	L2	Laboratory Rotation	Sassetti	Christopher
3041	BBS	850	L1	Laboratory Rotation	Schafer	Dorothy
3095	BBS	850	L2	Laboratory Rotation	Schafer	Dorothy
1215	BBS	850	L1	Laboratory Rotation	Schiffer	Celia
1453	BBS	850	L2	Laboratory Rotation	Schiffer	Celia
3698	BBS	850	L1	Laboratory Rotation	Shaffer	Scott
3699	BBS	850	L2	Laboratory Rotation	Shaffer	Scott
1219	BBS	850	L1	Laboratory Rotation	Shaw	Leslie
1457	BBS	850	L2	Laboratory Rotation	Shaw	Leslie
3163	BBS	850	L1	Laboratory Rotation	Shim	Jae-Hyuck
3165	BBS	850	L2	Laboratory Rotation	Shim	Jae-Hyuck
3615	BBS	850	L1	Laboratory Rotation	SHOHET	Jason Matthew
3616	BBS	850	L2	Laboratory Rotation	SHOHET	Jason Matthew
1221	BBS	850	L1	Laboratory Rotation	Silverman	Neal
1459	BBS	850	L2	Laboratory Rotation	Silverman	Neal
1225	BBS	850	L1	Laboratory Rotation	Socolovsky	Merav
1463	BBS	850	L2	Laboratory Rotation	Socolovsky	Merav
1227	BBS	850	L1	Laboratory Rotation	Song	Jie
1465	BBS	850	L2	Laboratory Rotation	Song	Jie
1233	BBS	850	L1	Laboratory Rotation	Szabo	Gyongyi
1471	BBS	850	L2	Laboratory Rotation	Szabo	Gyongyi
1237	BBS	850	L1	Laboratory Rotation	Theurkauf	William
1475	BBS	850	L2	Laboratory Rotation	Theurkauf	William
2753	BBS	850	L1	Laboratory Rotation	Thompson	Paul
2755	BBS	850	L2	Laboratory Rotation	Thompson	Paul
2355	BBS	850	L1	Laboratory Rotation	Torres	Eduardo
2359	BBS	850	L2	Laboratory Rotation	Torres	Eduardo
2599	BBS	850	L1	Laboratory Rotation	Trivedi	Chinmay

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2601	BBS	850	L2	Laboratory Rotation	Trivedi	Chinmay
2385	BBS	850	L1	Laboratory Rotation	Wang	Jennifer
2401	BBS	850	L2	Laboratory Rotation	Wang	Jennifer
3085	BBS	850	L1	Laboratory Rotation	Watts	Jonathan
3087	BBS	850	L2	Laboratory Rotation	Watts	Jonathan
1249	BBS	850	L1	Laboratory Rotation	Weng	Zhiping
1487	BBS	850	L2	Laboratory Rotation	Weng	Zhiping
1261	BBS	850	L1	Laboratory Rotation	Wolfe	Scot
1499	BBS	850	L2	Laboratory Rotation	Wolfe	Scot
3403	BBS	850	L1	Laboratory Rotation	Xiang	Yang
3397	BBS	850	L2	Laboratory Rotation	Xiang	Yang
1253	BBS	850	L1	Laboratory Rotation	Xu	Zuoshang
1491	BBS	850	L2	Laboratory Rotation	Xu	Zuoshang
2699	BBS	850	L1	Laboratory Rotation	Xue	Wen
2697	BBS	850	L2	Laboratory Rotation	Xue	Wen
1257	BBS	850	L1	Laboratory Rotation	Zhang	Hong
1495	BBS	850	L2	Laboratory Rotation	Zhang	Hong
1259	BBS	850	L1	Laboratory Rotation	ZHUGE	Ronghua
1497	BBS	850	L2	Laboratory Rotation	ZHUGE	Ronghua
2625	BBS	870	1	Prequalifying Research	Alkema	Mark
2607	BBS	870	1	Prequalifying Research	Alonso	Laura
2627	BBS	870	1	Prequalifying Research	Ambros	Victor
3225	BBS	870	1	Prequalifying Research	ANACLET	Christelle
2727	BBS	870	1	Prequalifying Research	Aroian	Raffi
1639	BBS	870	1	Prequalifying Research	Aronin	Neil
1641	BBS	870	1	Prequalifying Research	Baehrecke	Eric
2313	BBS	870	1	Prequalifying Research	Bailey	Jeffrey
2641	BBS	870	1	Prequalifying Research	Behar	Samuel
2345	BBS	870	1	Prequalifying Research	Benanti	Jennifer
2261	BBS	870	1	Prequalifying Research	Benard	Claire

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1643	BBS	870	1	Prequalifying Research	Berg	Leslie
2617	BBS	870	1	Prequalifying Research	Bergmann	Andreas
1645	BBS	870	1	Prequalifying Research	Bolon	Daniel
2185	BBS	870	1	Prequalifying Research	Bosco	Daryl
2247	BBS	870	1	Prequalifying Research	Boyer	Edward
2243	BBS	870	1	Prequalifying Research	Brehm	Michael
2687	BBS	870	1	Prequalifying Research	Brewer	Judson
3039	BBS	870	1	Prequalifying Research	Brewster	Robert
2197	BBS	870	1	Prequalifying Research	Brown	Robert
1647	BBS	870	1	Prequalifying Research	Budnik	Vivian
3175	BBS	870	1	Prequalifying Research	BYRNE	Alexandra Catherine
1649	BBS	870	1	Prequalifying Research	Cantor	Sharon
1653	BBS	870	1	Prequalifying Research	Castilla	Lucio
3101	BBS	870	1	Prequalifying Research	Cavacini	Lisa
2307	BBS	870	1	Prequalifying Research	Ceol	Craig
1655	BBS	870	1	Prequalifying Research	CHAN	Francis Ka Ming
1657	BBS	870	1	Prequalifying Research	Clapham	Paul
1659	BBS	870	1	Prequalifying Research	Clark	Robin
2277	BBS	870	1	Prequalifying Research	Cooper	Marcus
1661	BBS	870	1	Prequalifying Research	Corvera	Silvia
1663	BBS	870	1	Prequalifying Research	Czech	Michael
1665	BBS	870	1	Prequalifying Research	Davis	Roger
1667	BBS	870	1	Prequalifying Research	Dekker	Job
1671	BBS	870	1	Prequalifying Research	EMERY	Patrick
2341	BBS	870	1	Prequalifying Research	Fazzio	Thomas
1673	BBS	870	1	Prequalifying Research	Finberg	Robert
1675	BBS	870	1	Prequalifying Research	Fitzgerald	Katherine
1677	BBS	870	1	Prequalifying Research	Flotte	Terence
1679	BBS	870	1	Prequalifying Research	Francis	Michael
2505	BBS	870	1	Prequalifying Research	FREEDMAN	Jane

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2449	BBS	870	1	Prequalifying Research	Futai	Kensuke
2333	BBS	870	1	Prequalifying Research	Gao	Fen-Biao
1683	BBS	870	1	Prequalifying Research	Gao	Guangping
2573	BBS	870	1	Prequalifying Research	Garber	Manuel
1681	BBS	870	1	Prequalifying Research	Gardner	Paul
1685	BBS	870	1	Prequalifying Research	Goldberg	Robert
1687	BBS	870	1	Prequalifying Research	Golenbock	Douglas
1689	BBS	870	1	Prequalifying Research	Gottlinger	Heinrich
1691	BBS	870	1	Prequalifying Research	Gravallese	Ellen
1693	BBS	870	1	Prequalifying Research	Green	Michael
3567	BBS	870	1	Prequalifying Research	GREER	Paul Lieberman
1695	BBS	870	1	Prequalifying Research	Greiner	Dale
2571	BBS	870	1	Prequalifying Research	Grunwald	David
2287	BBS	870	1	Prequalifying Research	Guertin	David
2439	BBS	870	1	Prequalifying Research	Han	Gang
2469	BBS	870	1	Prequalifying Research	Harris	John
3181	BBS	870	1	Prequalifying Research	Haynes	Cole
1697	BBS	870	1	Prequalifying Research	Hayward	Lawrence
1699	BBS	870	1	Prequalifying Research	Huseby	Eric
1701	BBS	870	1	Prequalifying Research	Imbalzano	Anthony
1703	BBS	870	1	Prequalifying Research	Ip	Yicktung
3223	BBS	870	1	Prequalifying Research	IRAZOQUI	Javier Elbio
1705	BBS	870	1	Prequalifying Research	Jacobson	Allan
1707	BBS	870	1	Prequalifying Research	Jones	Stephen
1709	BBS	870	1	Prequalifying Research	Kang	Joonsoo
2729	BBS	870	1	Prequalifying Research	Karlsson	Elinor
1711	BBS	870	1	Prequalifying Research	Kaufman	Paul
2651	BBS	870	1	Prequalifying Research	Kelch	Brian
1713	BBS	870	1	Prequalifying Research	Kelliher	Michelle
2467	BBS	870	1	Prequalifying Research	Kennedy	David

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2433	BBS	870	1	Prequalifying Research	Khanna	Hemant
1041	BBS	870	1	Prequalifying Research	Khvorova	Anastasia
3103	BBS	870	1	Prequalifying Research	Kim	Dohoon
2183	BBS	870	1	Prequalifying Research	Kim	Jason
1715	BBS	870	1	Prequalifying Research	King	Jean
1717	BBS	870	1	Prequalifying Research	Kobertz	William
1719	BBS	870	1	Prequalifying Research	Kornfeld	Hardy
2329	BBS	870	1	Prequalifying Research	Korostelev	Andrei
1721	BBS	870	1	Prequalifying Research	Kowalik	Timothy
1723	BBS	870	1	Prequalifying Research	Kurt-Jones	Evelyn
2263	BBS	870	1	Prequalifying Research	Landers	John
1743	BBS	870	1	Prequalifying Research	Lawrence	Jeanne
1745	BBS	870	1	Prequalifying Research	Lawson	Nathan
2661	BBS	870	1	Prequalifying Research	Lee	Michael
1747	BBS	870	1	Prequalifying Research	Lee	Tzumin
1749	BBS	870	1	Prequalifying Research	Levitz	Stuart
1751	BBS	870	1	Prequalifying Research	Lewis	Brian
1753	BBS	870	1	Prequalifying Research	Li	Hong-Sheng
2177	BBS	870	1	Prequalifying Research	Li	Shaoguang
3569	BBS	870	1	Prequalifying Research	Li	Wenjun
1755	BBS	870	1	Prequalifying Research	Libraty	Daniel
1757	BBS	870	1	Prequalifying Research	Lien	Egil
2349	BBS	870	1	Prequalifying Research	Lois	Carlos
1759	BBS	870	1	Prequalifying Research	Lu	Shan
2557	BBS	870	1	Prequalifying Research	Luban	Jeremy
1761	BBS	870	1	Prequalifying Research	Luckmann	Roger
2547	BBS	870	1	Prequalifying Research	Maehr	Rene
2219	BBS	870	1	Prequalifying Research	Mandrekar	Pranoti
2199	BBS	870	1	Prequalifying Research	Mao	Junhao
2245	BBS	870	1	Prequalifying Research	Martin	Gilles

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1763	BBS	870	1	Prequalifying Research	Massi	Francesca
1765	BBS	870	1	Prequalifying Research	Matthews	Charles
1767	BBS	870	1	Prequalifying Research	McCollum	Dannel
2201	BBS	870	1	Prequalifying Research	McCormick	Beth
1769	BBS	870	1	Prequalifying Research	Melikian	Haley
1771	BBS	870	1	Prequalifying Research	Mello	Craig
1773	BBS	870	1	Prequalifying Research	Mercurio	Arthur
1775	BBS	870	1	Prequalifying Research	Miller	Stephen
3227	BBS	870	1	Prequalifying Research	MITCHELL	Amir Zadok
1777	BBS	870	1	Prequalifying Research	Moore	Melissa
2221	BBS	870	1	Prequalifying Research	Moormann	Ann
1779	BBS	870	1	Prequalifying Research	Morrison	Trudy
2517	BBS	870	1	Prequalifying Research	Muller	Christian
1781	BBS	870	1	Prequalifying Research	Munson	Maryann
1783	BBS	870	1	Prequalifying Research	Newburger	Peter
1785	BBS	870	1	Prequalifying Research	Ockene	Judith
2529	BBS	870	1	Prequalifying Research	Ortiz-Miranda	Sonia
2371	BBS	870	1	Prequalifying Research	Ostroff	Gary
3629	BBS	870	1	Prequalifying Research	PAI	Athma Anjali
1787	BBS	870	1	Prequalifying Research	Paydarfar	David
1789	BBS	870	1	Prequalifying Research	Pazour	Gregory
1791	BBS	870	1	Prequalifying Research	Peterson	Craig
1793	BBS	870	1	Prequalifying Research	Pryciak	Peter
2731	BBS	870	1	Prequalifying Research	Pukkila-Worley	Read
2471	BBS	870	1	Prequalifying Research	Punzo	Claudio
1795	BBS	870	1	Prequalifying Research	Ram	Sanjay
1797	BBS	870	1	Prequalifying Research	Rando	Oliver
3179	BBS	870	1	Prequalifying Research	REBOLDI	Andrea
1799	BBS	870	1	Prequalifying Research	Rhind	Nicholas
1801	BBS	870	1	Prequalifying Research	Richter	Joel

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1803	BBS	870	1	Prequalifying Research	Rivera Perez	Jaime
1805	BBS	870	1	Prequalifying Research	Rock	Kenneth
3571	BBS	870	1	Prequalifying Research	Rogaev	Evgeny
1807	BBS	870	1	Prequalifying Research	Ross	Alonzo
2305	BBS	870	1	Prequalifying Research	Rothstein	Ann
1809	BBS	870	1	Prequalifying Research	Royer	William
1811	BBS	870	1	Prequalifying Research	Ruiz De Luzuriaga	Katherine
1835	BBS	870	1	Prequalifying Research	Ryder	Sean
1837	BBS	870	1	Prequalifying Research	Sagerstrom	Charles
1839	BBS	870	1	Prequalifying Research	Sassetti	Christopher
3043	BBS	870	1	Prequalifying Research	Schafer	Dorothy
1841	BBS	870	1	Prequalifying Research	Schiffer	Celia
1857	BBS	870	1	Prequalifying Research	Selin	Liisa
2295	BBS	870	1	Prequalifying Research	Sena Esteves	Miguel
1843	BBS	870	1	Prequalifying Research	Shaw	Leslie
3177	BBS	870	1	Prequalifying Research	Shim	Jae-Hyuck
3617	BBS	870	1	Prequalifying Research	SHOHET	Jason Matthew
1845	BBS	870	1	Prequalifying Research	Silverman	Neal
1847	BBS	870	1	Prequalifying Research	Sluder	Greenfield
1849	BBS	870	1	Prequalifying Research	Socolovsky	Merav
1851	BBS	870	1	Prequalifying Research	Song	Jie
2733	BBS	870	1	Prequalifying Research	Sontheimer	Erik
1853	BBS	870	1	Prequalifying Research	Stein	Gary
1855	BBS	870	1	Prequalifying Research	Stern	Lawrence
2511	BBS	870	1	Prequalifying Research	Swain	Susan
1881	BBS	870	1	Prequalifying Research	Szabo	Gyongyi
2175	BBS	870	1	Prequalifying Research	Tapper	Andrew
1883	BBS	870	1	Prequalifying Research	Theurkauf	William
2735	BBS	870	1	Prequalifying Research	Thompson	Paul
1885	BBS	870	1	Prequalifying Research	Tissenbaum	Heidi



Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2369	BBS	870	1	Prequalifying Research	Torres	Eduardo
2583	BBS	870	1	Prequalifying Research	Trivedi	Chinmay
1889	BBS	870	1	Prequalifying Research	Walhout	Albertha
2589	BBS	870	1	Prequalifying Research	Walker	Amy
2403	BBS	870	1	Prequalifying Research	Wang	Jennifer
2405	BBS	870	1	Prequalifying Research	Waring	Molly
3089	BBS	870	1	Prequalifying Research	Watts	Jonathan
1891	BBS	870	1	Prequalifying Research	Weaver	David
1893	BBS	870	1	Prequalifying Research	Welsh	Raymond
1895	BBS	870	1	Prequalifying Research	Weng	Zhiping
1897	BBS	870	1	Prequalifying Research	Wolfe	Scot
1899	BBS	870	1	Prequalifying Research	Woodland	Robert
2323	BBS	870	1	Prequalifying Research	Xiang	Yang
1901	BBS	870	1	Prequalifying Research	Xu	Zuoshang
2701	BBS	870	1	Prequalifying Research	Xue	Wen
3445	BBS	870	1	Prequalifying Research	Yu	Hong
1903	BBS	870	1	Prequalifying Research	Zamore	Phillip
2195	BBS	870	1	Prequalifying Research	Zeldovich	Konstantin
1905	BBS	870	1	Prequalifying Research	Zhang	Hong
1907	BBS	870	1	Prequalifying Research	ZHUGE	Ronghua
1637	BBS	870	1	Prequalifying Research	Ziedonis	Douglas
3573	BBS	870	1	Prequalifying Research	Zitzewitz	Jill
2629	BBS	900	1	Thesis Research	Alkema	Mark
2609	BBS	900	1	Thesis Research	Alonso	Laura
2631	BBS	900	1	Thesis Research	Ambros	Victor
3231	BBS	900	1	Thesis Research	ANACLET	Christelle
2717	BBS	900	1	Thesis Research	Aroian	Raffi
1529	BBS	900	1	Thesis Research	Aronin	Neil
1531	BBS	900	1	Thesis Research	Baehrecke	Eric
2315	BBS	900	1	Thesis Research	Bailey	Jeffrey

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2693	BBS	900	1	Thesis Research	Behar	Samuel
2425	BBS	900	1	Thesis Research	Benanti	Jennifer
2265	BBS	900	1	Thesis Research	Benard	Claire
1533	BBS	900	1	Thesis Research	Berg	Leslie
2615	BBS	900	1	Thesis Research	Bergmann	Andreas
1535	BBS	900	1	Thesis Research	Bolon	Daniel
2189	BBS	900	1	Thesis Research	Bosco	Daryl
3585	BBS	900	1	Thesis Research	Boudreaux	Edwin
2259	BBS	900	1	Thesis Research	Boyer	Edward
2255	BBS	900	1	Thesis Research	Brehm	Michael
2689	BBS	900	1	Thesis Research	Brewer	Judson
3045	BBS	900	1	Thesis Research	Brewster	Robert
2205	BBS	900	1	Thesis Research	Brown	Robert
1537	BBS	900	1	Thesis Research	Budnik	Vivian
3183	BBS	900	1	Thesis Research	BYRNE	Alexandra Catherine
1539	BBS	900	1	Thesis Research	Cantor	Sharon
1543	BBS	900	1	Thesis Research	Castilla	Lucio
3105	BBS	900	1	Thesis Research	Cavacini	Lisa
2309	BBS	900	1	Thesis Research	Ceol	Craig
1545	BBS	900	1	Thesis Research	CHAN	Francis Ka Ming
1549	BBS	900	1	Thesis Research	Clapham	Paul
1551	BBS	900	1	Thesis Research	Clark	Robin
2279	BBS	900	1	Thesis Research	Cooper	Marcus
1553	BBS	900	1	Thesis Research	Corvera	Silvia
1555	BBS	900	1	Thesis Research	Czech	Michael
1557	BBS	900	1	Thesis Research	Davis	Roger
1559	BBS	900	1	Thesis Research	Dekker	Job
1563	BBS	900	1	Thesis Research	EMERY	Patrick
2427	BBS	900	1	Thesis Research	Fazzio	Thomas
1565	BBS	900	1	Thesis Research	Finberg	Robert

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1567	BBS	900	1	Thesis Research	Flotte	Terence
1569	BBS	900	1	Thesis Research	Francis	Michael
2507	BBS	900	1	Thesis Research	FREEDMAN	Jane
1571	BBS	900	1	Thesis Research	Freeman	Marc
2445	BBS	900	1	Thesis Research	Futai	Kensuke
2335	BBS	900	1	Thesis Research	Gao	Fen-Biao
1575	BBS	900	1	Thesis Research	Gao	Guangping
2577	BBS	900	1	Thesis Research	Garber	Manuel
1573	BBS	900	1	Thesis Research	Gardner	Paul
1577	BBS	900	1	Thesis Research	Goldberg	Robert
1579	BBS	900	1	Thesis Research	Golenbock	Douglas
1581	BBS	900	1	Thesis Research	Gottlinger	Heinrich
1583	BBS	900	1	Thesis Research	Gravallese	Ellen
1585	BBS	900	1	Thesis Research	Green	Michael
3575	BBS	900	1	Thesis Research	GREER	Paul Lieberman
2575	BBS	900	1	Thesis Research	Grunwald	David
2289	BBS	900	1	Thesis Research	Guertin	David
2477	BBS	900	1	Thesis Research	Han	Gang
2475	BBS	900	1	Thesis Research	Harris	John
3189	BBS	900	1	Thesis Research	Haynes	Cole
1587	BBS	900	1	Thesis Research	Hayward	Lawrence
1589	BBS	900	1	Thesis Research	Huseby	Eric
1591	BBS	900	1	Thesis Research	Imbalzano	Anthony
1593	BBS	900	1	Thesis Research	Ip	Yicktung
3229	BBS	900	1	Thesis Research	IRAZOQUI	Javier Elbio
1595	BBS	900	1	Thesis Research	Jacobson	Allan
1597	BBS	900	1	Thesis Research	Jones	Stephen
1599	BBS	900	1	Thesis Research	Kang	Joonsoo
2719	BBS	900	1	Thesis Research	Karlsson	Elinor
1601	BBS	900	1	Thesis Research	Kaufman	Paul

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2653	BBS	900	1	Thesis Research	Kelch	Brian
1945	BBS	900	1	Thesis Research	Kelliher	Michelle
2473	BBS	900	1	Thesis Research	Kennedy	David
2479	BBS	900	1	Thesis Research	Khanna	Hemant
1043	BBS	900	1	Thesis Research	Khvorova	Anastasia
3107	BBS	900	1	Thesis Research	Kim	Dohoon
2187	BBS	900	1	Thesis Research	Kim	Jason
1603	BBS	900	1	Thesis Research	Kobertz	William
1605	BBS	900	1	Thesis Research	Kornfeld	Hardy
2499	BBS	900	1	Thesis Research	Korostelev	Andrei
1607	BBS	900	1	Thesis Research	Kowalik	Timothy
1609	BBS	900	1	Thesis Research	Kurt-Jones	Evelyn
2267	BBS	900	1	Thesis Research	Landers	John
1611	BBS	900	1	Thesis Research	Lawrence	Jeanne
1613	BBS	900	1	Thesis Research	Lawson	Nathan
2663	BBS	900	1	Thesis Research	Lee	Michael
1615	BBS	900	1	Thesis Research	Lee	Tzumin
1617	BBS	900	1	Thesis Research	Levitz	Stuart
1619	BBS	900	1	Thesis Research	Lewis	Brian
1621	BBS	900	1	Thesis Research	Li	Hong-Sheng
2179	BBS	900	1	Thesis Research	Li	Shaoguang
3577	BBS	900	1	Thesis Research	Li	Wenjun
1623	BBS	900	1	Thesis Research	Libraty	Daniel
1625	BBS	900	1	Thesis Research	Lien	Egil
2351	BBS	900	1	Thesis Research	Lois	Carlos
1627	BBS	900	1	Thesis Research	Lu	Shan
2555	BBS	900	1	Thesis Research	Luban	Jeremy
1629	BBS	900	1	Thesis Research	Luckmann	Roger
2549	BBS	900	1	Thesis Research	Maehr	Rene
2223	BBS	900	1	Thesis Research	Mandrekar	Pranoti

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2207	BBS	900	1	Thesis Research	Mao	Junhao
2257	BBS	900	1	Thesis Research	Martin	Gilles
1631	BBS	900	1	Thesis Research	Massi	Francesca
1633	BBS	900	1	Thesis Research	Matthews	Charles
1635	BBS	900	1	Thesis Research	McCollum	Dannel
2209	BBS	900	1	Thesis Research	McCormick	Beth
1725	BBS	900	1	Thesis Research	Melikian	Haley
1727	BBS	900	1	Thesis Research	Mello	Craig
1729	BBS	900	1	Thesis Research	Mercurio	Arthur
1731	BBS	900	1	Thesis Research	Miller	Stephen
3233	BBS	900	1	Thesis Research	MITCHELL	Amir Zadok
2531	BBS	900	1	Thesis Research	Moore	Constance
1733	BBS	900	1	Thesis Research	Moore	Melissa
2225	BBS	900	1	Thesis Research	Moormann	Ann
1735	BBS	900	1	Thesis Research	Morrison	Trudy
2519	BBS	900	1	Thesis Research	Muller	Christian
1737	BBS	900	1	Thesis Research	Munson	Maryann
1739	BBS	900	1	Thesis Research	Newburger	Peter
1741	BBS	900	1	Thesis Research	Ockene	Judith
2533	BBS	900	1	Thesis Research	Ortiz-Miranda	Sonia
2373	BBS	900	1	Thesis Research	Ostroff	Gary
3630	BBS	900	1	Thesis Research	PAI	Athma Anjali
1813	BBS	900	1	Thesis Research	Paydarfar	David
1815	BBS	900	1	Thesis Research	Pazour	Gregory
1817	BBS	900	1	Thesis Research	Peterson	Craig
1819	BBS	900	1	Thesis Research	Pryciak	Peter
2721	BBS	900	1	Thesis Research	Pukkila-Worley	Read
2481	BBS	900	1	Thesis Research	Punzo	Claudio
1821	BBS	900	1	Thesis Research	Ram	Sanjay
1823	BBS	900	1	Thesis Research	Rando	Oliver

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3187	BBS	900	1	Thesis Research	REBOLDI	Andrea
1825	BBS	900	1	Thesis Research	Rhind	Nicholas
1827	BBS	900	1	Thesis Research	Richter	Joel
1829	BBS	900	1	Thesis Research	Rivera Perez	Jaime
1831	BBS	900	1	Thesis Research	Rock	Kenneth
3579	BBS	900	1	Thesis Research	Rogaev	Evgeny
1833	BBS	900	1	Thesis Research	Ross	Alonzo
2407	BBS	900	1	Thesis Research	Rothstein	Ann
1859	BBS	900	1	Thesis Research	Royer	William
1861	BBS	900	1	Thesis Research	Ruiz De Luzuriaga	Katherine
1863	BBS	900	1	Thesis Research	Ryder	Sean
1865	BBS	900	1	Thesis Research	Sagerstrom	Charles
1867	BBS	900	1	Thesis Research	Sassetti	Christopher
3047	BBS	900	1	Thesis Research	Schafer	Dorothy
1869	BBS	900	1	Thesis Research	Schiffer	Celia
1871	BBS	900	1	Thesis Research	Selin	Liisa
2297	BBS	900	1	Thesis Research	Sena Esteves	Miguel
1873	BBS	900	1	Thesis Research	Shaw	Leslie
3185	BBS	900	1	Thesis Research	Shim	Jae-Hyuck
3618	BBS	900	1	Thesis Research	SHOHET	Jason Matthew
1875	BBS	900	1	Thesis Research	Silverman	Neal
1877	BBS	900	1	Thesis Research	Sluder	Greenfield
1879	BBS	900	1	Thesis Research	Socolovsky	Merav
1909	BBS	900	1	Thesis Research	Song	Jie
2723	BBS	900	1	Thesis Research	Sontheimer	Erik
1911	BBS	900	1	Thesis Research	Stein	Gary
1913	BBS	900	1	Thesis Research	Stern	Lawrence
2483	BBS	900	1	Thesis Research	Swain	Susan
1915	BBS	900	1	Thesis Research	Szabo	Gyongyi
1917	BBS	900	1	Thesis Research	Tapper	Andrew

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1919	BBS	900	1	Thesis Research	Theurkauf	William
2725	BBS	900	1	Thesis Research	Thompson	Paul
1921	BBS	900	1	Thesis Research	Tissenbaum	Heidi
1547	BBS	900	1	Thesis Research	Torres	Eduardo
2633	BBS	900	1	Thesis Research	Trivedi	Chinmay
1925	BBS	900	1	Thesis Research	Walhout	Albertha
2591	BBS	900	1	Thesis Research	Walker	Amy
2409	BBS	900	1	Thesis Research	Wang	Jennifer
2411	BBS	900	1	Thesis Research	Waring	Molly
3091	BBS	900	1	Thesis Research	Watts	Jonathan
1927	BBS	900	1	Thesis Research	Weaver	David
1929	BBS	900	1	Thesis Research	Welsh	Raymond
1931	BBS	900	1	Thesis Research	Weng	Zhiping
1933	BBS	900	1	Thesis Research	Wolfe	Scot
1935	BBS	900	1	Thesis Research	Woodland	Robert
2325	BBS	900	1	Thesis Research	Xiang	Yang
1937	BBS	900	1	Thesis Research	Xu	Zuoshang
2703	BBS	900	1	Thesis Research	Xue	Wen
3447	BBS	900	1	Thesis Research	Yu	Hong
1939	BBS	900	1	Thesis Research	Zamore	Phillip
2203	BBS	900	1	Thesis Research	Zeldovich	Konstantin
1941	BBS	900	1	Thesis Research	Zhang	Hong
1943	BBS	900	1	Thesis Research	ZHUGE	Ronghua
1527	BBS	900	1	Thesis Research	Ziedonis	Douglas
3581	BBS	900	1	Thesis Research	Zitzewitz	Jill
2635	BBS	990	1	Graduate Research	Alkema	Mark
2611	BBS	990	1	Graduate Research	Alonso	Laura
2637	BBS	990	1	Graduate Research	Ambros	Victor
3237	BBS	990	1	Graduate Research	ANACLET	Christelle
2707	BBS	990	1	Graduate Research	Aroian	Raffi

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1949	BBS	990	1	Graduate Research	Aronin	Neil
1951	BBS	990	1	Graduate Research	Baehrecke	Eric
2317	BBS	990	1	Graduate Research	Bailey	Jeffrey
2695	BBS	990	1	Graduate Research	Behar	Samuel
2429	BBS	990	1	Graduate Research	Benanti	Jennifer
2269	BBS	990	1	Graduate Research	Benard	Claire
1953	BBS	990	1	Graduate Research	Berg	Leslie
2619	BBS	990	1	Graduate Research	Bergmann	Andreas
1955	BBS	990	1	Graduate Research	Bolon	Daniel
2193	BBS	990	1	Graduate Research	Bosco	Daryl
2253	BBS	990	1	Graduate Research	Boyer	Edward
2249	BBS	990	1	Graduate Research	Brehm	Michael
2691	BBS	990	1	Graduate Research	Brewer	Judson
3049	BBS	990	1	Graduate Research	Brewster	Robert
2213	BBS	990	1	Graduate Research	Brown	Robert
1957	BBS	990	1	Graduate Research	Budnik	Vivian
3191	BBS	990	1	Graduate Research	BYRNE	Alexandra Catherine
1959	BBS	990	1	Graduate Research	Cantor	Sharon
1963	BBS	990	1	Graduate Research	Castilla	Lucio
3109	BBS	990	1	Graduate Research	Cavacini	Lisa
2311	BBS	990	1	Graduate Research	Ceol	Craig
1965	BBS	990	1	Graduate Research	CHAN	Francis Ka Ming
1969	BBS	990	1	Graduate Research	Clapham	Paul
1971	BBS	990	1	Graduate Research	Clark	Robin
2281	BBS	990	1	Graduate Research	Cooper	Marcus
1973	BBS	990	1	Graduate Research	Corvera	Silvia
1975	BBS	990	1	Graduate Research	Czech	Michael
1977	BBS	990	1	Graduate Research	Davis	Roger
1979	BBS	990	1	Graduate Research	Dekker	Job
1983	BBS	990	1	Graduate Research	EMERY	Patrick



Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2431	BBS	990	1	Graduate Research	Fazzio	Thomas
1985	BBS	990	1	Graduate Research	Finberg	Robert
1987	BBS	990	1	Graduate Research	Fitzgerald	Katherine
1989	BBS	990	1	Graduate Research	Flotte	Terence
1991	BBS	990	1	Graduate Research	Francis	Michael
2509	BBS	990	1	Graduate Research	FREEDMAN	Jane
1993	BBS	990	1	Graduate Research	Freeman	Marc
2447	BBS	990	1	Graduate Research	Futai	Kensuke
2337	BBS	990	1	Graduate Research	Gao	Fen-Biao
1997	BBS	990	1	Graduate Research	Gao	Guangping
2581	BBS	990	1	Graduate Research	Garber	Manuel
1995	BBS	990	1	Graduate Research	Gardner	Paul
1999	BBS	990	1	Graduate Research	Goldberg	Robert
2001	BBS	990	1	Graduate Research	Golenbock	Douglas
2003	BBS	990	1	Graduate Research	Gottlinger	Heinrich
2005	BBS	990	1	Graduate Research	Gravallese	Ellen
2007	BBS	990	1	Graduate Research	Green	Michael
3539	BBS	990	1	Graduate Research	GREER	Paul Lieberman
2009	BBS	990	1	Graduate Research	Greiner	Dale
2579	BBS	990	1	Graduate Research	Grunwald	David
2291	BBS	990	1	Graduate Research	Guertin	David
2489	BBS	990	1	Graduate Research	Han	Gang
2487	BBS	990	1	Graduate Research	Harris	John
3197	BBS	990	1	Graduate Research	Haynes	Cole
2011	BBS	990	1	Graduate Research	Hayward	Lawrence
2013	BBS	990	1	Graduate Research	Huseby	Eric
2015	BBS	990	1	Graduate Research	Imbalzano	Anthony
2017	BBS	990	1	Graduate Research	Ip	Yicktung
3235	BBS	990	1	Graduate Research	IRAZOQUI	Javier Elbio
2019	BBS	990	1	Graduate Research	Jacobson	Allan

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2021	BBS	990	1	Graduate Research	Jones	Stephen
2023	BBS	990	1	Graduate Research	Kang	Joonsoo
2709	BBS	990	1	Graduate Research	Karlsson	Elinor
2025	BBS	990	1	Graduate Research	Kaufman	Paul
3079	BBS	990	1	Graduate Research	Keaney	John
2655	BBS	990	1	Graduate Research	Kelch	Brian
2027	BBS	990	1	Graduate Research	Kelliher	Michelle
2535	BBS	990	1	Graduate Research	Kennedy	David
2491	BBS	990	1	Graduate Research	Khanna	Hemant
1045	BBS	990	1	Graduate Research	Khvorova	Anastasia
3111	BBS	990	1	Graduate Research	Kim	Dohoon
2191	BBS	990	1	Graduate Research	Kim	Jason
2029	BBS	990	1	Graduate Research	King	Jean
2031	BBS	990	1	Graduate Research	Kobertz	William
2033	BBS	990	1	Graduate Research	Kornfeld	Hardy
2501	BBS	990	1	Graduate Research	Korostelev	Andrei
2035	BBS	990	1	Graduate Research	Kowalik	Timothy
2037	BBS	990	1	Graduate Research	Kurt-Jones	Evelyn
2271	BBS	990	1	Graduate Research	Landers	John
2039	BBS	990	1	Graduate Research	Lawrence	Jeanne
2041	BBS	990	1	Graduate Research	Lawson	Nathan
2665	BBS	990	1	Graduate Research	Lee	Michael
2043	BBS	990	1	Graduate Research	Lee	Tzumin
2045	BBS	990	1	Graduate Research	Levitz	Stuart
2047	BBS	990	1	Graduate Research	Lewis	Brian
2049	BBS	990	1	Graduate Research	Li	Hong-Sheng
2181	BBS	990	1	Graduate Research	Li	Shaoguang
3541	BBS	990	1	Graduate Research	Li	Wenjun
2051	BBS	990	1	Graduate Research	Libraty	Daniel
2053	BBS	990	1	Graduate Research	Lien	Egil

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2353	BBS	990	1	Graduate Research	Lois	Carlos
2055	BBS	990	1	Graduate Research	Lu	Shan
2553	BBS	990	1	Graduate Research	Luban	Jeremy
2057	BBS	990	1	Graduate Research	Luckmann	Roger
2551	BBS	990	1	Graduate Research	Maehr	Rene
2227	BBS	990	1	Graduate Research	Mandrekar	Pranoti
2215	BBS	990	1	Graduate Research	Mao	Junhao
2251	BBS	990	1	Graduate Research	Martin	Gilles
2059	BBS	990	1	Graduate Research	Massi	Francesca
2061	BBS	990	1	Graduate Research	Matthews	Charles
2063	BBS	990	1	Graduate Research	McCollum	Dannel
2217	BBS	990	1	Graduate Research	McCormick	Beth
2065	BBS	990	1	Graduate Research	Melikian	Haley
2067	BBS	990	1	Graduate Research	Mello	Craig
2069	BBS	990	1	Graduate Research	Mercurio	Arthur
2071	BBS	990	1	Graduate Research	Miller	Stephen
3239	BBS	990	1	Graduate Research	MITCHELL	Amir Zadok
2485	BBS	990	1	Graduate Research	Moore	Constance
2073	BBS	990	1	Graduate Research	Moore	Melissa
2229	BBS	990	1	Graduate Research	Moormann	Ann
2075	BBS	990	1	Graduate Research	Morrison	Trudy
2521	BBS	990	1	Graduate Research	Muller	Christian
2077	BBS	990	1	Graduate Research	Munson	Maryann
2079	BBS	990	1	Graduate Research	Newburger	Peter
2081	BBS	990	1	Graduate Research	Ockene	Judith
2537	BBS	990	1	Graduate Research	Ortiz-Miranda	Sonia
2375	BBS	990	1	Graduate Research	Ostroff	Gary
3631	BBS	990	1	Graduate Research	PAI	Athma Anjali
2083	BBS	990	1	Graduate Research	Paydarfar	David
2085	BBS	990	1	Graduate Research	Pazour	Gregory

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2087	BBS	990	1	Graduate Research	Peterson	Craig
2089	BBS	990	1	Graduate Research	Pryciak	Peter
2711	BBS	990	1	Graduate Research	Pukkila-Worley	Read
2493	BBS	990	1	Graduate Research	Punzo	Claudio
2091	BBS	990	1	Graduate Research	Ram	Sanjay
2093	BBS	990	1	Graduate Research	Rando	Oliver
3195	BBS	990	1	Graduate Research	REBOLDI	Andrea
2095	BBS	990	1	Graduate Research	Rhind	Nicholas
2097	BBS	990	1	Graduate Research	Richter	Joel
2099	BBS	990	1	Graduate Research	Rivera Perez	Jaime
2101	BBS	990	1	Graduate Research	Rock	Kenneth
3543	BBS	990	1	Graduate Research	Rogaev	Evgeny
2103	BBS	990	1	Graduate Research	Ross	Alonzo
2413	BBS	990	1	Graduate Research	Rothstein	Ann
2105	BBS	990	1	Graduate Research	Royer	William
2107	BBS	990	1	Graduate Research	Ruiz De Luzuriaga	Katherine
2109	BBS	990	1	Graduate Research	Ryder	Sean
2111	BBS	990	1	Graduate Research	Sagerstrom	Charles
2113	BBS	990	1	Graduate Research	Sassetti	Christopher
3051	BBS	990	1	Graduate Research	Schafer	Dorothy
2115	BBS	990	1	Graduate Research	Schiffer	Celia
2117	BBS	990	1	Graduate Research	Selin	Liisa
2299	BBS	990	1	Graduate Research	Sena Esteves	Miguel
2119	BBS	990	1	Graduate Research	Shaw	Leslie
3193	BBS	990	1	Graduate Research	Shim	Jae-Hyuck
2121	BBS	990	1	Graduate Research	Silverman	Neal
2123	BBS	990	1	Graduate Research	Sluder	Greenfield
2125	BBS	990	1	Graduate Research	Socolovsky	Merav
2127	BBS	990	1	Graduate Research	Song	Jie
2713	BBS	990	1	Graduate Research	Sontheimer	Erik

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2129	BBS	990	1	Graduate Research	Stein	Gary
2131	BBS	990	1	Graduate Research	Stern	Lawrence
2495	BBS	990	1	Graduate Research	Swain	Susan
2133	BBS	990	1	Graduate Research	Szabo	Gyongyi
2135	BBS	990	1	Graduate Research	Tapper	Andrew
2137	BBS	990	1	Graduate Research	Theurkauf	William
2715	BBS	990	1	Graduate Research	Thompson	Paul
2139	BBS	990	1	Graduate Research	Tissenbaum	Heidi
1967	BBS	990	1	Graduate Research	Torres	Eduardo
2639	BBS	990	1	Graduate Research	Trivedi	Chinmay
2143	BBS	990	1	Graduate Research	Walhout	Albertha
2593	BBS	990	1	Graduate Research	Walker	Amy
2415	BBS	990	1	Graduate Research	Wang	Jennifer
2417	BBS	990	1	Graduate Research	Waring	Molly
3093	BBS	990	1	Graduate Research	Watts	Jonathan
2145	BBS	990	1	Graduate Research	Weaver	David
2147	BBS	990	1	Graduate Research	Welsh	Raymond
2149	BBS	990	1	Graduate Research	Weng	Zhiping
2151	BBS	990	1	Graduate Research	Wolfe	Scot
2153	BBS	990	1	Graduate Research	Woodland	Robert
2327	BBS	990	1	Graduate Research	Xiang	Yang
2155	BBS	990	1	Graduate Research	Xu	Zuoshang
2705	BBS	990	1	Graduate Research	Xue	Wen
3449	BBS	990	1	Graduate Research	Yu	Hong
2157	BBS	990	1	Graduate Research	Zamore	Phillip
2211	BBS	990	1	Graduate Research	Zeldovich	Konstantin
2159	BBS	990	1	Graduate Research	Zhang	Hong
2161	BBS	990	1	Graduate Research	ZHUGE	Ronghua
1947	BBS	990	1	Graduate Research	Ziedonis	Douglas



## Clinical & Translational Sciences Non-Research Class Numbers

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2809	CTS	602B	CPH	Adv Epidemiology & Res Mthds	Lapane	Kate
2785	CTS	603B	CPH	Stat.Meth.Survival&Long.DatAna	BAEK	Jong Gyu
3625	CTS	609	CPH	Design of Clinical Trials	Barton	Bruce
3678	CTS	611	CPH	Scientific Writing	Goldberg	Robert
3393	CTS	620	CPH	Clin & Trans Research Sem	Kiefe	Catarina
3463	CTS	721	CPH	Infectious DiseaseEpidemiology	Moormann	Ann
3675	CTS	728	CPH	Psychiatric Epidemiology	Ulbricht	Christine
3626	CTS	732	CPH	Qualit.Methods Health Research	Dube	Catherine
3033	CTS	736	CPH	Cond. Implementation Research	Hogan	Timothy
3475	CTS	799	CPH	Independent Study	Aidlen	Jeremy
2919	CTS	799	CPH	Independent Study	Alavi	Karim
2915	CTS	799	CPH	Independent Study	Allison	Jeroan
3413	CTS	799	CPH	Independent Study	Epstein	Mara
2931	CTS	799	CPH	Independent Study	Fang	Hua
3119	CTS	799	CPH	Independent Study	Goldberg	Robert
2889	CTS	799	CPH	Independent Study	Houston	Thomas
2917	CTS	799	CPH	Independent Study	Jesdale	William
3117	CTS	799	CPH	Independent Study	Lapane	Kate
3115	CTS	799	CPH	Independent Study	Lemon	Stephenie
3680	CTS	799	CPH	Independent Study	LIU	Shao-Hsien
3473	CTS	799	CPH	Independent Study	Ma	Yunsheng
2893	CTS	799	CPH	Independent Study	Person	Sharina
3589	CTS	799	CPH	Independent Study	Rosal	Milagros
3681	CTS	799	CPH	Independent Study	Sadasivam	Rajani
3682	CTS	799	CPH	Independent Study	Ulbricht	Christine
2761	CTS	802	CPH	Journal Club	Goldberg	Robert
3467	CTS	855	CPH	Research Seminar	Goldberg	Robert
3679	CTS	860A	CPH	Written Qualifying Exam	Lapane	Kate
2929	CTS	860B	CPH	Oral Qualifying Exam	Lapane	Kate

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2947	CTS	865	CTS	CTS TRAC MEETING	Lapane	Kate
2883	CTS	875	CPH	Grant Writing	Lemon	Stephenie

## Clinical & Translational Sciences Research Class Numbers

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3135	CTS	850	CTS	Research Assistantship	Aidlen	Jeremy
3523	CTS	850	CTS	Research Assistantship	Alavi	Karim
2949	CTS	850	CTS	Research Assistantship	Allison	Jeroan
2955	CTS	850	CTS	Research Assistantship	ANDERSON	Frederick Arthur
3525	CTS	850	CTS	Research Assistantship	Ash	Arlene
2923	CTS	850	CTS	Research Assistantship	Brewer	Judson
3637	CTS	850	CTS	Research Assistantship	Byatt	Nancy
2953	CTS	850	CTS	Research Assistantship	Clark	Robin
3521	CTS	850	CTS	Research Assistantship	Epstein	Mara
3670	CTS	850	CTS	Research Assistantship	Friedmann	Peter
2887	CTS	850	CTS	Research Assistantship	Goldberg	Robert
3593	CTS	850	CTS	Research Assistantship	Himmelstein	Jay
3691	CTS	850	CTS	Research Assistantship	Houston	Thomas
2939	CTS	850	CTS	Research Assistantship	Kiefe	Catarina
2777	CTS	850	CTS	Research Assistantship	Lapane	Kate
2951	CTS	850	CTS	Research Assistantship	Lemon	Stephenie
2907	CTS	850	CTS	Research Assistantship	Luckmann	Roger
2769	CTS	850	CTS	Research Assistantship	Mattocks	Kristin
3636	CTS	850	CTS	Research Assistantship	Mazor	Kathleen
3149	CTS	850	CTS	Research Assistantship	McManus	David
2895	CTS	850	CTS	Research Assistantship	Mick	Eric
2885	CTS	850	CTS	Research Assistantship	Ockene	Judith
2853	CTS	850	CTS	Research Assistantship	Person	Sharina
2763	CTS	850	CTS	Research Assistantship	Rosal	Milagros



Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2829	CTS	850	CTS	Research Assistantship	Rosen	Allison
3683	CTS	850	CTS	Research Assistantship	Sadasivam	Rajani
2901	CTS	850	CTS	Research Assistantship	Tjia	Jennifer
3527	CTS	850	CTS	Research Assistantship	Ulbricht	Christine
2933	CTS	850	CTS	Research Assistantship	Waring	Molly
2873	CTS	850	CTS	Research Assistantship	Ziedonis	Douglas
3137	CTS	870	CTS	Pre-Thesis Research	Aidlen	Jeremy
3409	CTS	870	CTS	Pre-Thesis Research	Alavi	Karim
3684	CTS	870	CTS	Pre-Thesis Research	Allison	Jeroan
3686	CTS	870	CTS	Pre-Thesis Research	Ash	Arlene
3638	CTS	870	CTS	Pre-Thesis Research	Byatt	Nancy
3495	CTS	870	CTS	Pre-Thesis Research	Epstein	Mara
3669	CTS	870	CTS	Pre-Thesis Research	Friedmann	Peter
3497	CTS	870	CTS	Pre-Thesis Research	Goldberg	Robert
3687	CTS	870	CTS	Pre-Thesis Research	Houston	Thomas
3688	CTS	870	CTS	Pre-Thesis Research	Kiefe	Catarina
3591	CTS	870	CTS	Pre-Thesis Research	LAFEMINA	Jennifer
3477	CTS	870	CTS	Pre-Thesis Research	Lapane	Kate
3419	CTS	870	CTS	Pre-Thesis Research	Lemon	Stephenie
3689	CTS	870	CTS	Pre-Thesis Research	Mattocks	Kristin
3639	CTS	870	CTS	Pre-Thesis Research	Mazor	Kathleen
3147	CTS	870	CTS	Pre-Thesis Research	McManus	David
3421	CTS	870	CTS	Pre-Thesis Research	Ockene	Judith
3411	CTS	870	CTS	Pre-Thesis Research	Pagoto	Sherry
3417	CTS	870	CTS	Pre-Thesis Research	Person	Sharina
3415	CTS	870	CTS	Pre-Thesis Research	Rosal	Milagros
3685	CTS	870	CTS	Pre-Thesis Research	Sadasivam	Rajani
3690	CTS	870	CTS	Pre-Thesis Research	Ulbricht	Christine
3139	CTS	900	CTS	Thesis Research	Aidlen	Jeremy
3483	CTS	900	CTS	Thesis Research	Alavi	Karim

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2825	CTS	900	CTS	Thesis Research	Allison	Jeroan
2811	CTS	900	CTS	Thesis Research	ANDERSON	Frederick Arthur
2861	CTS	900	CTS	Thesis Research	Ash	Arlene
2925	CTS	900	CTS	Thesis Research	Brewer	Judson
3640	CTS	900	CTS	Thesis Research	Byatt	Nancy
2813	CTS	900	CTS	Thesis Research	Clark	Robin
3481	CTS	900	CTS	Thesis Research	Epstein	Mara
3671	CTS	900	CTS	Thesis Research	Friedmann	Peter
2891	CTS	900	CTS	Thesis Research	Goldberg	Robert
2957	CTS	900	CTS	Thesis Research	Harlan	David
3692	CTS	900	CTS	Thesis Research	Houston	Thomas
2827	CTS	900	CTS	Thesis Research	Kiefe	Catarina
2847	CTS	900	CTS	Thesis Research	King	Jean
2779	CTS	900	CTS	Thesis Research	Lapane	Kate
2859	CTS	900	CTS	Thesis Research	Lemon	Stephenie
2815	CTS	900	CTS	Thesis Research	Luckmann	Roger
2771	CTS	900	CTS	Thesis Research	Mattocks	Kristin
3641	CTS	900	CTS	Thesis Research	Mazor	Kathleen
3145	CTS	900	CTS	Thesis Research	McManus	David
2897	CTS	900	CTS	Thesis Research	Mick	Eric
2863	CTS	900	CTS	Thesis Research	Moore	Constance
3423	CTS	900	CTS	Thesis Research	Moormann	Ann
3479	CTS	900	CTS	Thesis Research	Ockene	Judith
2845	CTS	900	CTS	Thesis Research	Paydarfar	David
2855	CTS	900	CTS	Thesis Research	Person	Sharina
2765	CTS	900	CTS	Thesis Research	Rosal	Milagros
2831	CTS	900	CTS	Thesis Research	Rosen	Allison
2911	CTS	900	CTS	Thesis Research	Sadasivam	Rajani
2903	CTS	900	CTS	Thesis Research	Tjia	Jennifer
3485	CTS	900	CTS	Thesis Research	Ulbricht	Christine

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2935	CTS	900	CTS	Thesis Research	Waring	Molly
2875	CTS	900	CTS	Thesis Research	Ziedonis	Douglas
3141	CTS	990	CTS	Graduate Research	Aidlen	Jeremy
3491	CTS	990	CTS	Graduate Research	Alavi	Karim
2819	CTS	990	CTS	Graduate Research	Allison	Jeroan
2803	CTS	990	CTS	Graduate Research	ANDERSON	Frederick Arthur
2865	CTS	990	CTS	Graduate Research	Ash	Arlene
2841	CTS	990	CTS	Graduate Research	Bandini	Linda
2839	CTS	990	CTS	Graduate Research	Barton	Bruce
2941	CTS	990	CTS	Graduate Research	Bozorgzadeh	Adel
2927	CTS	990	CTS	Graduate Research	Brewer	Judson
2821	CTS	990	CTS	Graduate Research	Briesacher	Becky
3642	CTS	990	CTS	Graduate Research	Byatt	Nancy
3113	CTS	990	CTS	Graduate Research	Clark	Melissa
2797	CTS	990	CTS	Graduate Research	Clark	Robin
2869	CTS	990	CTS	Graduate Research	DIFRANZA	Joseph
3489	CTS	990	CTS	Graduate Research	Epstein	Mara
2823	CTS	990	CTS	Graduate Research	Fisher	William
2789	CTS	990	CTS	Graduate Research	Franklin	Patricia
2833	CTS	990	CTS	Graduate Research	Frazier	Jean
3672	CTS	990	CTS	Graduate Research	Friedmann	Peter
2817	CTS	990	CTS	Graduate Research	Goldberg	Robert
2843	CTS	990	CTS	Graduate Research	Houston	Thomas
3693	CTS	990	CTS	Graduate Research	Kiefe	Catarina
2783	CTS	990	CTS	Graduate Research	King	Jean
2773	CTS	990	CTS	Graduate Research	LAFEMINA	Jennifer
2781	CTS	990	CTS	Graduate Research	Lapane	Kate
2837	CTS	990	CTS	Graduate Research	Lemon	Stephenie
2795	CTS	990	CTS	Graduate Research	Lilly	Craig
2793	CTS	990	CTS	Graduate Research	Luckmann	Roger

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
2801	CTS	990	CTS	Graduate Research	Madoff	Lawrence
2849	CTS	990	CTS	Graduate Research	Marsh	Wendy
2943	CTS	990	CTS	Graduate Research	MARTINS	Paulo
2775	CTS	990	CTS	Graduate Research	Mattocks	Kristin
3643	CTS	990	CTS	Graduate Research	Mazor	Kathleen
3143	CTS	990	CTS	Graduate Research	McManus	David
2899	CTS	990	CTS	Graduate Research	Mick	Eric
2867	CTS	990	CTS	Graduate Research	Moore	Constance
2807	CTS	990	CTS	Graduate Research	Ockene	Ira
3487	CTS	990	CTS	Graduate Research	Ockene	Judith
2909	CTS	990	CTS	Graduate Research	Paydarfar	David
2857	CTS	990	CTS	Graduate Research	Person	Sharina
2791	CTS	990	CTS	Graduate Research	Reed	George
2767	CTS	990	CTS	Graduate Research	Rosal	Milagros
2835	CTS	990	CTS	Graduate Research	Rosen	Allison
2799	CTS	990	CTS	Graduate Research	Rothman	Alan
3057	CTS	990	CTS	Graduate Research	Sadasivam	Rajani
2851	CTS	990	CTS	Graduate Research	Schneider	Kristin
2905	CTS	990	CTS	Graduate Research	Tjia	Jennifer
3493	CTS	990	CTS	Graduate Research	Ulbricht	Christine
2945	CTS	990	CTS	Graduate Research	Walz	Jens
2937	CTS	990	CTS	Graduate Research	Waring	Molly
2877	CTS	990	CTS	Graduate Research	Ziedonis	Douglas

## Health Sciences Preparatory Program Class Numbers

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
1005	HSP	502B	HSM	Med Physiology & Histology B	Jonassen	Julie
1011	HSP	503	HSM	Epidemiology/Biostatistics	Epstein	Mara
1013	HSP	504B	HSM	Academic Achievement B	Hines	Deborah
1007	HSP	505	HSM	Clinical Medicine	Garcia	Maria
1009	HSP	506	HSM	Clinical Immersion	Person	Sharina

## MD/PhD Class Numbers

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3469	BBS	865	MDP	BBS TRAC Meeting	Lane	Mary
3587	BBS	870	MDP	Prequalifying Research	Boudreaux	Edwin
3650	BBS	870	MDP	Prequalifying Research	Fitzgerald	Katherine
3651	BBS	870	MDP	Prequalifying Research	Kelliher	Michelle
3652	BBS	870	MDP	Prequalifying Research	McCormick	Beth
3653	BBS	870	MDP	Prequalifying Research	Melikian	Haley
3632	BBS	870	MDP	Prequalifying Research	SHOHET	Jason Matthew
3645	BBS	870	MDP	Prequalifying Research	WANG	Bo
3654	BBS	870	MDP	Prequalifying Research	Weng	Zhiping
3261	BBS	900	MDP	Thesis Research	Alonso	Laura
3655	BBS	900	MDP	Thesis Research	ANACLET	Christelle
3263	BBS	900	MDP	Thesis Research	Aronin	Neil
3656	BBS	900	MDP	Thesis Research	Baehrecke	Eric
3265	BBS	900	MDP	Thesis Research	Bailey	Jeffrey
3267	BBS	900	MDP	Thesis Research	Behar	Samuel
3269	BBS	900	MDP	Thesis Research	Bosco	Daryl
3657	BBS	900	MDP	Thesis Research	Boudreaux	Edwin
3271	BBS	900	MDP	Thesis Research	Brown	Robert
3273	BBS	900	MDP	Thesis Research	Ceol	Craig
3658	BBS	900	MDP	Thesis Research	Futai	Kensuke
3275	BBS	900	MDP	Thesis Research	Gardner	Paul
3277	BBS	900	MDP	Thesis Research	Golenbock	Douglas
3279	BBS	900	MDP	Thesis Research	Guertin	David
3281	BBS	900	MDP	Thesis Research	Harris	John
3659	BBS	900	MDP	Thesis Research	Khvorova	Anastasia
3285	BBS	900	MDP	Thesis Research	Kurt-Jones	Evelyn
3287	BBS	900	MDP	Thesis Research	Lawrence	Jeanne
3289	BBS	900	MDP	Thesis Research	Lee	Michael
3291	BBS	900	MDP	Thesis Research	Li	Hong-Sheng

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3535	BBS	900	MDP	Thesis Research	Luban	Jeremy
3293	BBS	900	MDP	Thesis Research	McCormick	Beth
3295	BBS	900	MDP	Thesis Research	Mercurio	Arthur
3297	BBS	900	MDP	Thesis Research	Moore	Melissa
3660	BBS	900	MDP	Thesis Research	Peterson	Craig
3661	BBS	900	MDP	Thesis Research	Pukkila-Worley	Read
3299	BBS	900	MDP	Thesis Research	Rhind	Nicholas
3301	BBS	900	MDP	Thesis Research	Richter	Joel
3303	BBS	900	MDP	Thesis Research	Rock	Kenneth
3305	BBS	900	MDP	Thesis Research	Sassetti	Christopher
3307	BBS	900	MDP	Thesis Research	Schafer	Dorothy
3309	BBS	900	MDP	Thesis Research	Schiffer	Celia
3311	BBS	900	MDP	Thesis Research	Shaw	Leslie
3633	BBS	900	MDP	Thesis Research	SHOHET	Jason Matthew
3313	BBS	900	MDP	Thesis Research	Song	Jie
3662	BBS	900	MDP	Thesis Research	Sontheimer	Erik
3315	BBS	900	MDP	Thesis Research	Szabo	Gyongyi
3317	BBS	900	MDP	Thesis Research	Trivedi	Chinmay
3319	BBS	900	MDP	Thesis Research	Walhout	Albertha
3646	BBS	900	MDP	Thesis Research	WANG	Bo
3321	BBS	900	MDP	Thesis Research	Weng	Zhiping
3323	BBS	900	MDP	Thesis Research	Xue	Wen
3325	BBS	900	MDP	Thesis Research	Zamore	Phillip
3327	BBS	990	MDP	Graduate Research	Alonso	Laura
3329	BBS	990	MDP	Graduate Research	Aronin	Neil
3331	BBS	990	MDP	Graduate Research	Bailey	Jeffrey
3333	BBS	990	MDP	Graduate Research	Behar	Samuel
3335	BBS	990	MDP	Graduate Research	Bosco	Daryl
3337	BBS	990	MDP	Graduate Research	Brown	Robert
3339	BBS	990	MDP	Graduate Research	Ceol	Craig

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3341	BBS	990	MDP	Graduate Research	Gardner	Paul
3343	BBS	990	MDP	Graduate Research	Golenbock	Douglas
3345	BBS	990	MDP	Graduate Research	Guertin	David
3347	BBS	990	MDP	Graduate Research	Harris	John
3351	BBS	990	MDP	Graduate Research	Kurt-Jones	Evelyn
3399	BBS	990	MDP	Graduate Research	Lane	Mary
3353	BBS	990	MDP	Graduate Research	Lawrence	Jeanne
3355	BBS	990	MDP	Graduate Research	Lee	Michael
3357	BBS	990	MDP	Graduate Research	Li	Hong-Sheng
3663	BBS	990	MDP	Graduate Research	Luban	Jeremy
3359	BBS	990	MDP	Graduate Research	McCormick	Beth
3664	BBS	990	MDP	Graduate Research	McCormick	Beth
3153	BBS	990	MDP	Graduate Research	McManus	David
3361	BBS	990	MDP	Graduate Research	Mercurio	Arthur
3363	BBS	990	MDP	Graduate Research	Moore	Melissa
3537	BBS	990	MDP	Graduate Research	Pazour	Gregory
3365	BBS	990	MDP	Graduate Research	Rhind	Nicholas
3367	BBS	990	MDP	Graduate Research	Richter	Joel
3369	BBS	990	MDP	Graduate Research	Rock	Kenneth
3371	BBS	990	MDP	Graduate Research	Sassetti	Christopher
3373	BBS	990	MDP	Graduate Research	Schafer	Dorothy
3375	BBS	990	MDP	Graduate Research	Schiffer	Celia
3377	BBS	990	MDP	Graduate Research	Shaw	Leslie
3619	BBS	990	MDP	Graduate Research	SHOHET	Jason Matthew
3379	BBS	990	MDP	Graduate Research	Song	Jie
3381	BBS	990	MDP	Graduate Research	Szabo	Gyongyi
3383	BBS	990	MDP	Graduate Research	Trivedi	Chinmay
3385	BBS	990	MDP	Graduate Research	Walhout	Albertha
3647	BBS	990	MDP	Graduate Research	WANG	Bo
3387	BBS	990	MDP	Graduate Research	Weng	Zhiping



Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3399	BBS	990	MDP	Graduate Research	Xiang	Yang
3389	BBS	990	MDP	Graduate Research	Xue	Wen
3391	BBS	990	MDP	Graduate Research	Zamore	Phillip
3471	CTS	865	MDP	CTS TRAC MEETING	Lapane	Kate
3511	CTS	870	MDP	Pre-Thesis Research	ANACLET	Christelle
3517	CTS	870	MDP	Pre-Thesis Research	Baehrecke	Eric
3501	CTS	870	MDP	Pre-Thesis Research	Boudreaux	Edwin
3503	CTS	870	MDP	Pre-Thesis Research	Byatt	Nancy
3665	CTS	870	MDP	Pre-Thesis Research	Friedmann	Peter
3507	CTS	870	MDP	Pre-Thesis Research	Futai	Kensuke
3509	CTS	870	MDP	Pre-Thesis Research	Khvorova	Anastasia
3644	CTS	870	MDP	Pre-Thesis Research	Mazor	Kathleen
3499	CTS	870	MDP	Pre-Thesis Research	McManus	David
3505	CTS	870	MDP	Pre-Thesis Research	Peterson	Craig
3513	CTS	870	MDP	Pre-Thesis Research	Pukkila-Worley	Read
3515	CTS	870	MDP	Pre-Thesis Research	Sontheimer	Erik
3519	CTS	870	MDP	Pre-Thesis Research	Xue	Wen
3199	CTS	900	MDP	Thesis Research	Allison	Jeroan
3666	CTS	900	MDP	Thesis Research	Byatt	Nancy
3674	CTS	900	MDP	Thesis Research	Friedmann	Peter
3201	CTS	900	MDP	Thesis Research	Kiefe	Catarina
3203	CTS	900	MDP	Thesis Research	Luckmann	Roger
3667	CTS	900	MDP	Thesis Research	McManus	David
3157	CTS	990	MDP	Graduate Research	Aidlen	Jeremy
3205	CTS	990	MDP	Graduate Research	Allison	Jeroan
3255	CTS	990	MDP	Graduate Research	ANACLET	Christelle
3251	CTS	990	MDP	Graduate Research	Donahue	John
3673	CTS	990	MDP	Graduate Research	Friedmann	Peter
3253	CTS	990	MDP	Graduate Research	IRAZOQUI	Javier Elbio
3207	CTS	990	MDP	Graduate Research	Kiefe	Catarina

Class #	Subject	Catalog	Session	Description	Faculty Last	Faculty First
3155	CTS	990	MDP	Graduate Research	Lane	Mary
3157	CTS	990	MDP	Graduate Research	Lane	Mary
3209	CTS	990	MDP	Graduate Research	Luckmann	Roger
3259	CTS	990	MDP	Graduate Research	MARTINS	Paulo
3155	CTS	990	MDP	Graduate Research	McManus	David
3257	CTS	990	MDP	Graduate Research	MITCHELL	Amir Zadok
2965	MDP	740A	MDP	Dev. Solutions Res.Prob.A Yr1	Corvera	Silvia
3015	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Allison	Jeroan
3121	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Alonso	Laura
3245	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	ANACLET	Christelle
2981	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Aronin	Neil
3023	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Ash	Arlene
3427	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Baehrecke	Eric
2973	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Bailey	Jeffrey
2989	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Bosco	Daryl
2975	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Brass	Abraham
3603	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Brehm	Michael
3443	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Brewer	Judson
3607	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Caffrey	Daniel
3027	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Ceol	Craig
2993	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Corvera	Silvia
3241	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Donahue	John
3131	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Fitzgerald	Katherine
3441	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Francis	Michael
3031	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Goldberg	Robert
2969	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Golenbock	Douglas
3009	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Guertin	David
2997	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Harris	John
3243	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	IRAZOQUI	Javier Elbio
3601	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Keaney	John

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3597	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Kelliher	Michelle
2991	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Khanna	Hemant
3439	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Khvorova	Anastasia
3013	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Lawrence	Jeanne
3025	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Lee	Michael
2985	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Luckmann	Roger
3249	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	MARTINS	Paulo
3129	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	McCormick	Beth
3151	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	McManus	David
3599	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Melikian	Haley
3125	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Mercurio	Arthur
3247	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	MITCHELL	Amir Zadok
3029	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Moore	Melissa
3005	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Paydarfar	David
3431	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Peterson	Craig
3435	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Pukkila-Worley	Read
3021	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Punzo	Claudio
3433	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Rhind	Nicholas
2977	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Richter	Joel
3605	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Rothstein	Ann
2979	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Sassetti	Christopher
3123	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Schafer	Dorothy
3003	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Schiffer	Celia
3001	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Shaw	Leslie
3620	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	SHOHET	Jason Matthew
3011	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Szabo	Gyongyi
3437	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Tapper	Andrew
2983	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Tjia	Jennifer
3007	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Trivedi	Chinmay
3609	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Ulbricht	Christine

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2995	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Walhout	Albertha
3053	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Walz	Jens
3648	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	WANG	Bo
2971	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Weng	Zhiping
3127	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Xue	Wen
2959	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Zhang	Nanyin
3429	MDP	740B	MDP	Dev. Solutions Res.Prob.B Yr2	Ziedonis	Douglas
2967	MDP	740C	MDP	Dev. Solutions Res.Prob.C Yr3	Corvera	Silvia
2961	MDP	741	MDP	Intro. to Translational Med	Corvera	Silvia
2987	MDP	744	MDP	MD/PhD Learning Communities	Szabo	Gyongyi
2963	MDP	800	MDP	MD/PhD Seminar	Michelson	Anne
1015	MDP	990	MDP	MD/PhD Grad.Res.Stu Post-Disse	Michelson	Anne