Syllabus
Translational Research Fundamentals CLRE-236, 2 units
WI19

Course instructors

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Course Information

Winter 2019; Tuesdays from 6:00 to 7:50 PM, from January 8th to March 19th, 2019

Class Location

UCSD Extension, University City Center, 6256 Greenwich Dr., San Diego, CA 92122, Suite 150, Room 112

Course Description

Students learn principles and practices of translational medicine as they apply to the development of new drugs, device, or diagnostic. Students receive training in the development of novel targets and leads, clinical pharmacology, regulatory process, and design of clinical trials. *Prerequisites*: Admission to the MAS in Clinical Research Program or consent of department.

Course Organization (Method of instruction)

The course will consist in 10 weekly lessons of 1 hour 50 minutes each. See Course Structure section below for details about the lesson organization.

Course Goals

In the simplest terms, Translational Research in Medicine is a discipline within the Biomedical and Public Health Research areas that "translates" Basic Science findings into medical applications (e.g., diagnostic tools, medical devices, drugs, cell-based therapies, procedures, policies, education)—it is moving Science from bench to bedside and back! This course is focused on the practical application of the principles of Translational Research in Medicine in your own field of expertise and has for ultimate goal to equip you with tools that will allow you to practice Translational Research in your own clinical research.

Course Objectives

See specific leaning objectives listed for each lesson in the Course Schedule.

Prerequisites and Preparation

Prior to each lesson, there will be **background reading to be done** that may take up to 90 minutes to complete; the specific material can be found in the pre-requisite reading item in each Lesson folder in the Lessons section of the course on TritonEd (see Course Materials/Resources for link). Class participation for each lesson will be evaluated by submission prior to each lesson of two questions stemming from the pre-requisite reading (see Exams/Final projects section below for details). A **homework** putting into application the principles covered in the lecture will be given at the end of each lesson and must be completed after class (may take up to 2 hours) **and submitted before the following lesson** (see Exams/Final projects section below for details).

Course Materials/Resources

The required textbook for this course is Principles of Translational Science in Medicine: From Bench to Bedside, Martin Wehling (Editor), Academic Press; 2nd Edition (April 21st, 2015), 364 pages, ISBN-13: 978-0128006870—it is available for free in the Course Textbook Chapters folder in the Lessons section of the course on TritonEd. Some Figures and Diagrams for the lectures will also be borrowed from a non-mandatory textbook: Translational Medicine and Drug Discovery, Bruce H. Littman & Rajesh Krishna (Editors), Cambridge University Press; Reprint edition (October 30th, 2014), 384 pages, ISBN-13: 978-1107435940. For each lesson, a slide presentation of the lecture, the associated homework, as well as the pre-requisite and supplementary reading can be found in the Lessons section of the course on TritonEd.

Online resources: TritonEd: https://tritoned.ucsd.edu/webapps/login/

Course Schedule

Please see the accompanying document in the Syllabus & Schedule section of the course on TritonEd, which also contains details about the topics, learning objectives, textbook section(s) covered, class participation and homework grade values, and speakers for each lesson.

Course Structure

The course will consist in 10 weekly lessons of 1 hour 50 minutes each. A lesson will consist in a 90-min lecture covering the principles from the background reading with practical examples followed by a 20-min introduction to the homework. Nine subject-matter expert Faculty, seven from the biopharmaceutical industry and two from academia, will be joining Drs. Laporte, Kollengode, and Okwuegbuna in the teaching of the lessons (see Course Schedule section above for details).

Exams/Final projects

- **Class participation**: Class participation for each lesson will be evaluated by submission prior to each lesson of two questions stemming from the pre-requisite reading using a Word document template provided in the Lessons section of the course on TritonEd. Submission will be made by uploading the filled Word document to the Assignments Submission section of the course on TritonEd. Each submission will be worth 2.5% of the final grade for a grand total of 25% for the 10 lessons. If a submission cannot be made in time, an extension can be provided if the instructors are notified by email **before the submission deadline**. Otherwise, a late submission penalty of 10% of the submission grade will be imposed.
- **Weekly homeworks**: A homework will be given at the end of each lesson and must be completed after class and **submitted before the following lesson** in the Lessons section of the course on TritonEd. Submission will be made by uploading the filled homework document(s) to the Assignments Submission section of the course on TritonEd. Each homework will be worth either 5 or 7.5% of the final grade depending on the lesson for a grand total of 55% for the 10 lessons (see Course Schedule section above for details). If a submission cannot be made in time, an extension can be provided if the instructors are notified by email **before the submission deadline**. Otherwise, a late submission penalty of 10% of the submission grade will be imposed.
- **Final exam**: A final open-book exam in Word format will be given online on Friday, September 14th; it will be available in the Lessons section of the course on TritonEd from 8:00 AM to 4:00 PM and should be submitted by no later than 4:00 PM by uploading the filled Word document to the Assignments Submission section of the course on TritonEd. This final exam will be worth 20% of the final grade.

Grading Policy

Grades are based on points and the letter grades are given as follows (see Exams/Final projects section above for details on the breakdown of the final grade across class participation, weekly homeworks, and final exam):

A+ 98.0+	B+ 87.0 – 89.99	C+ 77.0 – 79.99	D 65.0 – 69.99
A 94.0 – 97.99	B 84.0 – 86.99	C 74.0 – 76.99	F 0 - 64.99
A- 90.0 – 93.99	B- 80.0 – 83.99	C- 70.0 – 73.99	

- Academic Integrity (Plagiarism): http://academicintegrity.ucsd.edu/
- See your grades on TritonLink (if you are matriculated- in MAS Program), on MyExtension (if you are non-matriculated/CREST, concurrent enrollment)

Course Policy and Expectations (classroom rules of conduct)
- Attendance Policy: CREST/MAS program policy requires a minimal attendance of 70%, seven of the ten sessions. Please, be sure not to exceed 3 absences as you will have to drop and repeat the course. Coming to class 20 minutes after the class starts also counts as an absence so, please be on time.
- Academic Integrity (Plagiarism): http://academicintegrity.ucsd.edu/
- Late work submission policy: See Exams/Final projects section above for details.

Communication with lecturers
The best way to reach us is via email. We will try to respond within 24 hours.

Student Evaluation of Course and Faculty
Course and faculty evaluations provide important feedback to instructors to improve course content and teaching methodology. Teaching evaluations are also an important factor in faculty advancement, merit and promotion. This is also part of developing professional conduct and behavior. To facilitate ease of completion of evaluations an electronic format has been implemented in Survey Monkey. Please see the TritonEd page for the link.

Technical Requirements
Laptop is required in class and for the online final exam to access the internet and to use Microsoft Excel, Word, and PowerPoint (applications can be either installed on the laptop or accessed online)—a tablet is an acceptable alternative to the laptop if the Microsoft applications could be used on them.

Accommodations
If you have a disability that may impact your academic performance, you may request accommodations by submitting documentation to: https://students.ucsd.edu/well-being/disability-services/