

Syllabus
Translational Research Fundamentals CLRE-236, 2 units
WI25

Course Instructors

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 Maria Paz Rodriguez, DDS, MAS; Email: mpr002@health.ucsd.edu; Office hours: availability upon request

Course Information

Winter 2024; Tuesdays from 6 to 8 PM, from January 7th to March 11th, 2025

Class Location

Zoom online conferencing:

Join Zoom Meeting

<https://ucsd.zoom.us/j/98088178549>

One tap mobile

+16699006833,,98088178549# US (San Jose)

+12133388477,,98088178549# US (Los Angeles)

Dial by your location

+1 669 900 6833 US (San Jose)

+1 213 338 8477 US (Los Angeles)

+1 669 219 2599 US (San Jose)

Meeting ID: 980 8817 8549

Find your local number:

<https://ucsd.zoom.us/j/98088178549>

Course Description

In the simplest terms, translational science is the process of translating observations in the laboratory, clinic, and community into interventions that improve the health of individuals and populations. This course teaches the application of translational science principles and tools to accelerate and improve the efficiency and effectiveness of the discovery/design and development of biomedical products, from drugs/biologics and cell & gene therapy to medical technology, the latter encompassing medical devices (including diagnostics and wearables) and digital health.

Course Organization (Method of instruction)

The course will consist in ten 2-hour weekly lessons. See Course Structure section below for details about the lesson organization.

Course Goals

This course is focused on the practical application of translational science principles and tools to the discovery/design and development of biomedical products. It will equip you with knowledge that will allow you to understand the application of translational science in your own field of expertise.

Course Objectives

See specific learning objectives listed for each lesson in the Schedule PDF file in the Syllabus section of the course shell in Canvas (see Course Materials/Resources section below for link to Canvas).

Prerequisites and Preparation

Prior to each lesson, there will be **background/preparatory reading to be done** that may take up to one hour to complete; the specific material can be found in each Lesson folder in the Modules section of the course shell in Canvas (see Course Materials/Resources section below for link to Canvas).

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; 3rd Edition (2021), ISBN: 978-0-12-820493-1—it is available for free in the Course Textbook Chapters module in the Modules section of the course shell in Canvas. For each lesson, a slide presentation of the lecture, the associated quiz, as well as the preparatory reading can be found in the Modules section of the course shell in Canvas.

Online resources (link to Canvas): <https://coursefinder.ucsd.edu/>

Course Schedule

Please see the Schedule PDF file in the Syllabus section of the course shell in Canvas, which contains details for each lesson about the topic, learning objectives, textbook section(s) covered, evaluation (discussion boards and quizzes), and teaching faculty (see Course Materials/Resources section above for link to Canvas).

Course Structure

The course will consist of ten 2-hour weekly lessons. A lesson will consist in a lecture covering the specific topic, introduced in the preparatory background reading, using practical examples followed by a brief introduction to a hands-on quiz. A faculty of ten experienced subject-matter experts from the biomedical industry will be joining Drs. Laporte and Rodriguez in the teaching of the lessons (see Course Schedule section above for details).

Exams/Final Projects

- **Weekly discussion boards:** A discussion board will open in each weekly Lesson folder in the Modules section of the course shell in Canvas (see Course Materials/Resources section below for link to Canvas). Each student needs **to contribute to it before the following lesson**. Each weekly contribution will be worth 1 point of the final grade for a grand total of 10 points for the 10-week course.
- **Weekly quizzes:** A quiz will be given at the end of each lesson in each weekly Lesson folder in the Modules section of the course shell in Canvas (see Course Materials/Resources section below for link to Canvas). It must be completed after class and **before the following lesson**. Each quiz will be worth 9 points of the final grade for a grand total of 90 points for the 10 lessons (see Course Schedule section above for details).
- If you cannot contribute to a discussion board or complete a quiz in time, an extension can be provided on a case-by-case basis if you let us know by email @ rlaporte@ucsd.edu (Dr. Laporte) or @ mpr002@health.ucsd.edu (Dr. Rodriguez) **before the assignment deadline**. Otherwise, we may have to impose a late submission penalty.

See Course Materials/Resources section above for link to Canvas.

Grading Policy

Grades are based on percentage over a maximum of 100 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 in-class participation, discussion posts, and quizzes):

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)
- All students receiving financial aid must meet specific [Satisfactory Academic Progress \(SAP\) requirements](#), which refers to the academic standards students must maintain to remain eligible for federal, state, and institutional financial aid. If you are receiving financial aid, please ensure you review the [SAP requirements and the appeals process](#).

Course Policy and Expectations (classroom rules of conduct)

- Attendance Policy: CREST/MAS program policy requires a minimal attendance of 70%, i.e., 7 of the 10 lessons. 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 @ rlaporte@ucsd.edu (Dr. Laporte) or @ mpr002@health.ucsd.edu (Dr. Rodriguez). 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. Please see your Canvas Inbox for the link that will be emailed to you towards the end of the quarter (see Course Materials/Resources section above for link to Canvas).

Technical Requirements

A laptop or desktop is required with:

- Reliable access to the internet
- Webcam and microphone (built-in or external; a headset with a microphone for clear communication is strongly recommended)
- Access to an up-to-date web browser
- Access to Microsoft Excel, Word, and PowerPoint (applications can be either installed on the device or accessed online)

A tablet is an acceptable alternative if it meets all these requirements.

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/>