

IMPORTANT: This syllabus form should be submitted to OAA (gsbs_academic_affairs@uth.tmc.edu) a week before the start of each semester.

NOTE to STUDENTS: If you need any accommodation related to attending/enrolling in this course, please contact the Graduate School's 504 Coordinator Natalie Sirisaengtaksin, PhD. We ask that you notify GSBS in advance (preferably at least 3 days before the start of the semester) so we can make appropriate arrangements.

Term and Year: Fall 2026 Course Number and Course Title: GS21 1232 Translational Sciences: From Bedside to Bench and Back Credit Hours: 2 Prerequisites: None Meeting Location: MDACC/Basic Science Research Building (BSRB) Building/Room#: BSRB S.3.8112 (GSBS Computer Lab)	Program Required Course: Yes Approval Code: No Audit Permitted: Yes Classes Begin: August 26, 2026 Classes End: December 2, 2026 Final Exam Week: December 7-11, 2026
Class Meeting Schedule	
Day	Time
Wednesdays	2pm-4pm
Course Director Name and Degree: Salvador Alonso-Martinez, MD Title: Assistant Professor Department: GI Medical Oncology Institution: MDACC Email Address: SAlonso1@mdanderson.org Contact Number: (832) 297-4348 NOTE: Office hours are available by request. Please email me to arrange a time to meet. Teaching Assistant: TBD	Instructor/s (Will be posted once list of instructors is confirmed)
Course Description: This is an integrated, multidisciplinary course designed to provide students the necessary tools to devise, fund, implement, and publish exemplary research involving patients or	

materials obtained from a human source. Students participating in this course will gain an understanding of the depth, complexity, and limitations of integrating laboratory and clinical research into investigations of human disease. After completion of the course, students will understand the importance of translational research: using laboratory findings to benefit human patients (bench to bedside) and investigating clinical observations in the laboratory (bedside to bench). This course is distinct from *Human Protocol Research (GS21 1132)*; this course focuses on the interrelationship between laboratory-based and clinical research. A culture that fosters translational research of the highest quality requires laboratory and clinical investigators to appreciate the scientific complexity of patient-oriented translational research.

Textbook/Supplemental Reading Materials

- None

Course Objective/s:

Upon successful completion of this course, students will...

Understand the importance of translational research: using laboratory findings to benefit human patients (bench to bedside) and investigating clinical observations in the laboratory (bedside to bench). This course is distinct from Human Protocol Research (GS21 1132): This course focuses on the interrelationship between laboratory-based and clinical research. A culture that fosters translational research of the highest quality requires laboratory and clinical investigators to appreciate the scientific complexity of patient-oriented translational research.

Specific Learning Objectives:

1. Provide an overview of the necessary tools to devise, fund, implement and publish exemplary research involving patients or materials used from a human source.
2. Provide an introduction to the depth, complexity and limitations of integrating laboratory and clinical research into investigations of human disease.
3. To provide an overview of the importance of translational research: using laboratory findings to benefit human patients (bench to bedside) and investigating clinical observations in the laboratory (bedside to bench).
4. To provide a foundation of knowledge on the interrelationship between laboratory-based and clinical research.

Student responsibilities and expectations:

Students enrolled in this course will be expected to perform the following activities each week.

1. Read, process, and review (study) material from 1 or 2 seminal reviews relating to the week's cancer biology topic
2. Read 2 research articles (e.g., primary research)
3. Write 2 one-page literature synopses for the assigned research articles (see Course Grading for more detail)
4. Prepare for and take course quizzes based on course lectures/ readings.
5. Attend and participate at the journal club review session
6. Participate in and contribute to course discussions during lecture, review sessions
7. Prepare for and take a final examination based on lecture and some reading material

Students are expected to complete all assigned reading material (reviews and research literature) prior to class. While you may work and discuss all course materials and assignments in groups, all writing assignments must be your own. Whenever relevant, specific guidelines will be provided on whether using AI-generated content is permitted. Plagiarism and failure to properly cite scientific literature and other sources will not be tolerated and are grounds for dismissal from the course and further GSBS disciplinary action. Cheating or engaging in unethical behavior during examinations (quizzes and final) will be grounds for dismissal from the course without credit and further GSBS disciplinary action.

Grading System: Letter Grade (A-F)

Student Assessment and Grading Criteria: *(May include the following:)*

Percentage	Description
Final Exam (60 %)	Take-home exam (Multiple Choice, T/F, Essay)
Participation and/or Attendance (40%)	Participation in the discussions, 85% attendance required