

# Graduate School of Biomedical Sciences

Douglas M. Stocco, Ph.D., Dean, Graduate School of  
Biomedical Sciences and Executive Vice President for  
Research

ent with rigorous training  
dical research. Students

## 5275. Core V: Introduction to Biomedical Research (2:0:0).

Introduces the first-year graduate student to the – Ma. Students with deficiencies in any of these areas may be conditionally admitted pending success-

Required for first year students.

The following interdisciplinary courses are available in addition to course offerings within each research area throughout the Graduate School of Biomedical Sciences.

### Graduate School of Biomedical Sciences (GSBS)

**5099. Topics in Biomedical Sciences (V1-6).** Specific areas in biomedical sciences or related research not normally included in other courses. May be repeated for credit.

**5101. Responsible Conduct of Research (1:1:0).** This course will address the regulatory and ethical environment of today's biomedical research as well as such topics as authorship and data management. The class format is lectures and case discussions. Course is required for all GSBS students.

**5102. How to be a Scientist: Professional Skills for the Biomedical Sciences Graduate Student (1:1:0).** Teaches useful concepts in the scientific professionalism that might not be learned elsewhere: how science is conducted in the United States and at TTUHSC, the importance of oral communication in science and tips for teaching in a science classroom.

**5174. Core IV: Biomedical Seminar Series (1:1:0).** Students will attend and participate in seminars.

**5201. GW]Ybh]UW' Kf]h]b [ ]b h \Y' 6]c a YX]WU' GW]YbWYg'fi&.&.\$L''** Tactics for effective writing and communication in the biomedical sciences. Instruction will focus on the process of writing and publishing scientific manuscripts and writing fellowship applications. Students will complete short writing and editing exercises that focus on tactics of effective, clear, and concise writing, and prepare a manuscript or application in their area of study.

6135, 6235, 6335, 6535. Topics in Biochemistry (1:1:0, 2:2:0,  
3:3:0, 5:5:0).

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- ) & % " 5X jUbWYX' HfU]b]b [ ' ]b' <]ghc`c [ m' = ' fl&.\$.&L. Students will participate in the histology laboratories in the Structure and Function of Major Organ Systems block of the first year School of Medicine curriculum, attend all histology lectures, and attend all pre-laboratory meetings in preparation for the laboratory sessions. The students will also assist in preparing the practical exams. Prerequisites include successful completion of the first year course work in Pre-Medical Sciences.
- ) ' ' % " 5X jUbWYX' HfU]b]b [ ' ]b' <]ghc`c [ m' fl' .\$. 'L" Students will participate in the histology laboratories as teaching assistants and attend all pre-laboratory meetings in preparation for the laboratory sessions. The students will also assist in preparing the practical exams. Prerequisites include successful completion of the first year course work in Pre-Medical Sciences.
- ) ' ' & " 5X jUbWYX' HfU]b]b [ ' ]b' 5bUhc a m' fl' .\$. 'L" Students will participate in the gross anatomy laboratories as teaching assistants and attend all pre-laboratory meetings in preparation for the laboratory sessions. The students will also assist in preparing the practical exams. Prerequisites include successful completion of the first year course work in Pre-Medical Sciences.
- 5340. Educational Project in Biomedical Sciences (3:0:0).** Students will design and carry out an educational project in either Anatomy or Histology. The project will be designed according to the needs of these courses and matched to the interest of the student. Projects might include self-directed learning units/sessions, or upgrading or creation of educational materials as presented on WebCT. Required of all Pre-Medical Sciences students.
- ) ) % \$ " 6]c`c [ m' cZ' 7Y`g`UbX`H]gg i Yg` fl' .) .) L" Biology of Cells and Tissues is designed to provide students with fundamental information concerning the traditional areas of biochemistry, genetics, and cell biology. The principles presented in this course will proceed from molecules to cells and then to tissues integrating structure and function.
- 5611. Gross Anatomy (6:2:10).** A highly integrated introductory course of anatomical study (including human prosection) which embodies the gross morphology of the body and coordinates it with the clinical, developmental, and microscopic aspects of the human body.
- 6000 Master's Thesis (V1-6).**
- 6055. Laboratory Methods (V1-6).** Prerequisite: Consent of instructor. Taken as (1) hands-on introduction to the laboratories in which a student may wish to do thesis or dissertation research, or (2) after a student is well established in his or her dissertation research, additional rotations can be done to gain expertise in techniques applicable to the student's research but not available in the faculty advisor's laboratory. Repeatable if different methods are covered for each registration.
- \* ' & \$ " 5X jUbWYX' 7Y` 6]c`c [ m' fl' . ' .\$. L" Prerequisite: GSBS core curriculum or consent of course director. This course will cover advanced topics in cell biology and is designed for senior students who have completed introductory cell biology courses. The topics covered will include regulatory mechanisms that control the development of metazoan organisms, cell cycle regulation, cancer, and reproductive and stem cell biology.
- 6340. Cell Structure and Function (3:3:0).** Topics include structure/function relationships involved in DNA replication, transcription, protein tracking, cytoskeletal organization and function, cell division, and adhesion.
- 7000 Research (V1-12).**
- 7101-7101 Seminar (1:1:0). Students will attend and participate in departmental seminars.**
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## 7Y` `D \mg]c`c [ m' UbX' Ac`YW i`Uf` Biophysics (GPHY)

Luis Reuss, M.D., Chairperson for the School of Medicine  
Department of Cell Physiology and Molecular Biophysics  
Raul Martinez-Zaguilan, Ph.D., and Michaela Jansen,  
Ph.D., Graduate Advisors



delivery, pharmacology, pharmaceuticals (including formulations and industrial pharmacy), pharmacokinetics, drug receptor modeling, molecular biology, biochemistry, pathophysiology, immunology and cancer therapy, toxicology, and pharmacy administration. The graduate program in pharmaceutical sciences is designed to educate students for careers in pharmaceutical industry, academia, and federal agencies including the FDA. Admissions requirements include a degree in pharmacy, chemistry, biology, or related areas. Teaching and research assistantships are awarded on a competitive basis. The departmental courses are listed below. For more information contact Teresa Carlisle, graduate program coordinator, 806.356.4015 ext. 287 or email [pharmsci.gradadv@ttuhsc.edu](mailto:pharmsci.gradadv@ttuhsc.edu).

**GPSC Courses:**

**5101. Topics in Pharmaceutical Sciences (1:1:0).** Special topics in pharmaceutical sciences that are 82323 8282323 8macll(enci3)6