MOLECULAR PHYSIOLOGY & BIOPHYSICS (MPBP)

Courses

MPBP 301. Human Physiology & Pharm I. 4 Credits.
An integrated examination of the physiology and pharmacology of the peripheral nervous, muscle and cardiovascular systems in the human body. Pre/co-requisites: CHEM 032 and CHEM 042 or equivalent, two semesters general physics, and two semesters calculus. May not be taken for credit with MPBP 306.

MPBP 302. Human Physiology & Pharm II. 4 Credits.
An integrated examination of the physiology and pharmacology of the endocrine, digestive, renal and respiratory systems in the human body. Pre/co-requisites: CHEM 032 and CHEM 042 or equivalent; two semesters general physics, two semesters calculus, MPBP 301 or Instructor permission. May not be taken for credit with MPBP 306.

MPBP 303. Critical Reading. 1 Credit.
Critical reading of the current literature, team taught by the faculty in the Dept. of Molecular Physiology & Biophysics, giving broad exposure to the expertise present in the department.

MPBP 306. Medical Physiology. 8 Credits.
Function in the whole human organism, and at the cellular, tissue, and organ levels, considered biologically and physically. Pre/co-requisite: Permission of Department Chair. May not be taken for credit with MPBP 301 or MPBP 302.

MPBP 308. Biometrics & Applied Statistics. 3 Credits.
The rationale and application of biostatistical methods in the biological, health and life sciences with emphasis on interpreting and reporting results. Prerequisite: STAT 141 or equivalent. Cross-listed with: BIOS 308, STAT 308.

MPBP 310. Molecular Control of the Cell. 3 Credits.
Examines the fundamental molecular mechanisms that control dynamic cellular processes. Advanced topics in cell biology will be explored from the single molecule to the whole tissue level with an emphasis on the coordination of complex molecular systems. Prerequisites: MPBP 301, BIOC 301, BIOC 302; Instructor permission.

MPBP 323. Biophysical Techniques. 4 Credits.

MPBP 326. Data Analysis&Presentation II. 2 Credits.
Develop graduate level skills in data analysis, reading, writing, teaching and presenting your own work and that of others (Part 2 of 2). Prerequisites: BIOC 301, CLBI 301; Graduate standing. Cross-listed with: BIOC 326.

MPBP 330. Biomedical Grantsmanship. 2 Credits.
Introduces graduate students in the biomedical life sciences to process of writing competitive research proposals for funding from federal and private agencies such as the National Institutes of Health (NIH).

MPBP 333. 3D Electron Microscopy&Img Prc. 1 Credit.

MPBP 381. Seminar. 1 Credit.
Presentation and discussion by advanced students, staff, and invited speakers, of current topics in physiology. Prerequisite: Department permission.

MPBP 390. Medical Master's Capstone. 2 Credits.
Students advance their fundamental knowledge in biochemistry, pharmacology, and physiology by addressing therapeutic applications in a discussion format. Students will choose and research current clinical problems and will communicate new molecular strategies through formal presentations. Prerequisites: Graduate Student standing in the Medical Science program; BIOC 301, MPBP 301, or Instructor permission.

MPBP 391. Master's Thesis Research. 1-18 Credits.

MPBP 395. Advanced Special Topics. 1-18 Credits.
Topics of interest to Graduate students beyond the scope of existing courses.

MPBP 491. Doctoral Dissertation Research. 1-18 Credits.

MPBP 496. Advanced Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.