

MOLECULAR BIOLOGY (MOLB)

MOLB 7650 - Research in Molecular Biology (1-10 Credits)

Research work in molecular biology. Prereq: Consent of the instructor.

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 99.

A-GRAD Restricted to graduate students only.

Typically Offered: Fall, Spring, Summer.

MOLB 7661 - Molecular Biology Seminar (1 Credit)

Seminar series provides a forum for the presentation of scientific experiments and information in molecular biology by faculty, postdoctoral fellows, graduate students and invited outside guest speakers.

Grading Basis: Letter Grade

A-GRAD Restricted to graduate students only.

Typically Offered: Fall, Spring.

MOLB 7800 - Advanced Topics in Molecular Biology (3-4 Credits)

Course instructs graduate students how to critically evaluate scientific literature. Course in 4 blocks; topics include nucleic acid, chromatin structure, DNA replication, RNA transcription, RNA processing, cell cycle control, genetics of model organisms. Papers chosen by instructors, presentations by students. Prereq: IDPT 7811, 7812, 7813, 7814, 7815. Restriction: By Permission of instructor. Course offered in 4 blocks of 1 hour of credit each.

Grading Basis: Letter Grade

Repeatable. Max Credits: 4.

A-GRAD Restricted to graduate students only.

Typically Offered: Spring.

MOLB 7801 - Rigor and Reproducibility in Biomedical Research (1 Credit)

Course will integrate the concepts of rigor, repeatability and reproducibility by combining both wet and dry lab components focused on teaching these concepts and laboratory skills. We will seek to make these concepts routine considerations during the design and execution of any type of experiment. Instructor consent required.

Grading Basis: Pass/Fail Only

Repeatable. Max Credits: 3.

A-GRAD Restricted to graduate students only.

Typically Offered: Fall, Spring.

MOLB 7900 - Practical Computational Biology for Biologists: Python (2 Credits)

Comp. biology class aimed at biology PhD students. Topics covered include: basic practices for coding in python; analysis of standard high-throughput genomic data to study the regulation of gene expression; intro to modeling gene expression; data visualization; communicating computational analysis/results. 3 wks. lecture, lab & recitation

Grading Basis: Letter Grade

Typically Offered: Spring.

MOLB 7910 - Practical Computational Biology for Biologists: R (2 Credits)

Comp. biology class aimed at biology PhD students. Topics covered include: basic practices for coding in R; analysis of standard high-throughput genomic data to study the regulation of gene expression; intro to modeling gene expression; data visualization; communicating computational analysis/results. 3 wks. lecture, lab & recitation

Grading Basis: Letter Grade

Typically Offered: Spring.

MOLB 7950 - Informatics and Statistics for Molecular Biology (4 Credits)

This course covers the design and analysis of common molecular biology experiments with thorough coverage of statistical and informatic approaches to data analysis. The course begins with a "boot camp" that covers use of shell programming, R/R Studio, and Python scripting in bioinformatics. Pre-Req: MOLB-PhD or CSDV-PhD students only

Grading Basis: Letter Grade

A-GRAD Restricted to graduate students only.

Typically Offered: Fall.

MOLB 8990 - Doctoral Thesis in Molecular Biology (1-10 Credits)

Doctoral thesis work in molecular biology. Prereq: Consent of Instructor.

Grading Basis: Letter Grade with IP

Repeatable. Max Credits: 99.

A-GRAD Restricted to graduate students only.

Additional Information: Report as Full Time.

Typically Offered: Fall, Spring, Summer.