

# **MOLECULAR BIOLOGY (MOLB)**

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## **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 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 7950 - Informatics and Statistics for Molecular Biology (3 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.