

Course: Molecular Biology

Instructor:

Course description

The aim of this course is to provide students with a basic understanding of modern molecular biology. Topics in replication, dynamics of chromosome structure, regulation of gene expression will be discussed. Students will be able to use the knowledge they have acquired to develop projects in bioinformatics at the end of the course.

References

Molecular Biology of the Gene, 5/E

Course Schedule

Introduction

The Structures of DNA and RNA

The Structures of DNA and RNA

Chromatin and the Nucleosome

Chromatin and the Nucleosome

The Replication of DNA

The Replication of DNA

The Mutability and Repair of DNA

Exam

Mechanisms of Transcription

Mechanisms of Transcription

The Processing of RNA

The Processing of RNA

The Genetic Code and Translation

Gene Regulation in Prokaryotes

Gene Regulation in Prokaryotes

Gene Regulation in Eukaryotes

Exam

Course evaluation

Passing score for graduate course is 70. In general, score is allocated between class attendance, homework, mid-term written exam, final written exam and student oral presentation. Course instructor reserves the right to adjust the grading scheme.