

# Computational Epigenetics

## Spring 2022

### CS286-01: Advanced Practical Computing Topics (Computational Epigenetics) Tue & Thur 6:00-7:15PM Online

#### COURSE TOPICS

- Upon successful completion of this course, students will
  - ✓ Be familiar with the epigenetic and computational epigenetic technology landscape.
  - ✓ Know the methods of eukaryotic chromatin and DNA regulation, and have competency with using selected computational models of eukaryote chromatin and DNA regulation.
  - ✓ Understand the mechanisms of epigenetic imprinting and impact of the environment on epigenetic control.
  - ✓ Know how to use selected epigenetic DBs to help answer questions of interest.
  - ✓ Understand the mechanisms of STEM Cell reprogramming, and some of the diseases related to epigenetic factors. Understanding the mechanisms of plant epigenetics.

#### WHO SHOULD ENROLL?

Anyone who wants a solid introduction to epigenetics and how organisms regulate and control the expression of genes.

#### HOW TO ENROLL

**Current SJSU Students** – Log in to your MySJSU account to search for the course number and section printed above.

**Others** – Go to the SJSU Open University web page (<http://ou.sjsu.edu>) and click on the link:  
How to Register for an On-Site Class.

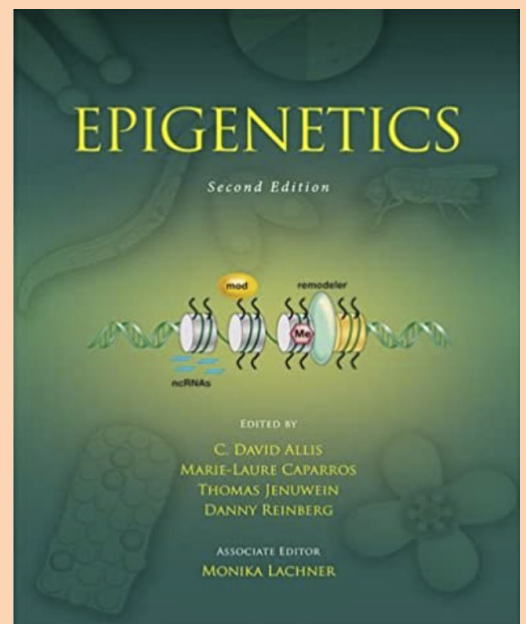
**NOTE:** Open Univ. Spring 2022 courses will be visible at the above URL likely by December 2021.

#### PREREQUISITES

- Completion of CS123B, Biol 115, and Math 161A or equivalent courses
- Instructor consent.

#### REQUIRED TEXTBOOK

*Supplemental reference material will also be provided.*



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