# ECS129: Computational Structural Bioinformatics Winter 2024

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### Information sheet

**Class Web page**: <u>http://www.cs.ucdavis.edu/~koehl/Teaching/ECS129/index.html</u> Check here for announcements, handouts (pdf and ppt), recommended readings, quizzes, assignments, etc.

Lectures: Tue-Thu, 9:00 am – 10:20 am, Roessler Hall 55 Discussion: Tue 8:00- 8:50 am, Art 217 Office hours: Wed 4-6 pm Kemper Hall, Room 3059; also by appointment (send me an e-mail)

### Contacts: koehl@cs.ucdavis.edu

I answer to ALL e-mails. I do NOT guarantee however that I answer PROMPTLY...

### Attendance:

- You are expected to attend lectures, and you are responsible for the material discussed in class.
- Discussions are optional. I will be there, to discuss class materials and papers.

#### Exams:

There will be one midterm, three projects, and one final.

**Grading:** 20% midterm, 50% projects (project 1 10%, projects 2 and 3 each 20%) 30% final.

### **Course Description**:

- I. Introduction: top challenges in Bioinformatics
- II. Bio-molecular structures
  - Nucleic acids
    - Proteins
- III. Sequence comparison
- IV. RNA structure prediction
- V. Protein structure prediction
- VI. Simulations in structural biology