

- ✓ Refresh knowledge on basic concepts in genomics
- ✓ Learn basic principles in bioinformatics
- ✓ Familiarize with public databases and analysis tools of bioinformatics

## BIOL 4540 / 6540: Bioinformatics (Spring 2023, CRN: 26258 / 26259)

### 1. Course Information

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### 5. Assignments and Assessment

|         |     |
|---------|-----|
| Exam 1: | 100 |
| Exam 2: | 100 |
| Exam 3: | 100 |
| Final:  | 200 |

Graduate students will have additional assessment of completing a term paper (100 pts).

Scale: A  $\geq$  90%, B  $\geq$  80%, C  $\geq$  60%, D  $\geq$  40%, F < 40%

6. Schedule of Activities or Assignments, including university -scheduled final exam time (all schedule is tentative and may be subject to change)

| Week | Date        | Topic   |
|------|-------------|---|
| 1    | 1/9 – 1/13  | Introduction<br>Research Overview<br>Ch1 The Perennial Question   |
| 2    | 1/16 – 1/20 | Jan 16 MLK Holiday<br>Ch2 The Nature of Biological Information  |
| 3    | 1/23 – 1/27 | Ch3 DNA: The Molecules<br>Ch4 The Evolution of Biological Complexity  |
| 4    | 1/30 – 2/3  | Ch4 The Evolution of Biological Complexity<br>Ch5 Cooperating Genomes; Ch6 DNA, Information and Complexity<br>Ch7 Origins of Complexity; Ch8 The Complexities of Societies<br>Ch9 Why DNA and Not RNA |
| 5    | 2/6 – 2/10  | <b>Exam 1</b><br>Introduction to Mathematica<br>Linear Regression Analysis using Mathematica  |

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## 7. Classroom Policy

### **Accommodations Statement**

Students with disabilities who are experiencing barriers in this course may contact the Access Office (<https://www.valdosta.edu/student/disability/>) for assistance in determining and implementing