Instructor: Dr. Renaud Geslain
Office: Room 146, SSM building
Tel: (843)-953-8080
email: geslainr@cofc.edu

Lectures
Tuesday and Thursday
10:50am - 12:05pm

Office hours
Tuesday 12:15 - 1:15pm
or by appointment
I am always happy to help!

Required textbook

Molecular Biology of the Gene
By Watson, Baker, Bell, Gann, Levine and Losick
Seventh edition
Pearson
The text is also available as an ebook
Thank you for choosing this class of molecular biology.

**Learning outcomes:**

Upon completion of this course you will be able to:

- Understand in details and at the molecular level, the synthesis, structure, and function of nucleic acids and proteins in prokaryotes and eukaryotes.
- Remain abreast of the most recent advances in molecular biology.
- Write, discuss or critique about recent advances in molecular biology and their impact on society, individually or in groups.

**Structure of the lectures:**

1. summary of the previous lecture
2. current lecture
3. Molecular Biology in the news - mini debate or mini-lecture on molecular biology techniques

**Academic conduct:**

This course adheres to the Academic Integrity Policy at the College of Charleston. Punctuality is essential. Respect for the instructor and for your fellow classmates is expected. Violation of the academic honor code may result in an XF in the course.

**Attendance:**

Lecture attendance is strongly encouraged. Complete the assigned reading before coming to class. There will be material covered that is not in your textbook and you will be tested on it. Lecture slides and summaries will be posted on OAKS.
Course evaluation:

Exam#1 100 pts  
Exam#2 100 pts  
Exam#3 100 pts  
Quiz#1 20 pts  
Quiz#2 20 pts  
Quiz#3 20 pts

Grading scale:

Exams and Quizzes: there will be 3 exams (2 midterms + 1 cumulative final exam) and 3 in class quizzes during the semester. If you have a legitimate excuse to miss an exam or quiz please see me ahead of time. Missing an exam or quiz without an acceptable excuse will result in a grade of zero.

Tips for success in this course:

- Check OAKS on a regular basis, this is were I post my lecture slides as well as all important information.
- Read the assigned readings.
- Don't be afraid to ask questions. I welcome questions before, during, and after class.
- As we progress through the course, try to build on the information presented in the previous lectures. This will help you to build "the big picture" of the key concepts and scientific principles that are used in cell and molecular biology.
# Lecture schedule

**How much do you about molec?** 25-Aug
Structure of DNA 27-Aug
Structure of RNA 01-Sep
Structure of protein 03-Sep
Nucleosome and chromatin 08-Sep
ST#1: pathogenic organisms 10-Sep
ST#2: GMOs 15-Sep
Review + Quiz#1 17-Sep
**Exam#1** 22-Sep

Replication 24-Sep
Transcription 29-Sep
Splicing and modifications 01-Oct
Translation apparatus 06-Oct
Translation mechanism 08-Oct
ST#3: biology of cancer 13-Oct
ST#4: drug development 15-Oct
Review + Quiz#2 22-Oct
**Exam#2** 27-Oct

Translation regulation 29-Oct
Transcription regulation prok. 03-Nov
Transcription regulation euk. 05-Nov
Regulatory RNAs 10-Nov
ST#5: DNA forensic 12-Nov
ST#6: Model organisms 17-Nov
Molecular art exhibition 19-Nov
Review + Quiz#3 24-Nov
**Final** tbd

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*ST = special topic*
**Special needs:**

Any student eligible for needing academic adjustments or accomodations through the SNAP program because of a documented disability needs to speak with me immediately so that we can address these needs.

**Important dates:**

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<thead>
<tr>
<th>Event</th>
<th>Date</th>
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<tbody>
<tr>
<td>Last day to drop/add</td>
<td>Aug 31</td>
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<tr>
<td>Midterm grades available</td>
<td>Oct 23</td>
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<tr>
<td>Last day to withdraw with a &quot;W&quot;</td>
<td>Oct 29</td>
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<tr>
<td>Final Exam</td>
<td>tbd</td>
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