

COURSE SYLLABUS
BIOL 682 – Advanced Eukaryotic Cell Biology
George Mason University, Fall 2020
Wednesday – 4:30 PM – 7:10 PM
3.0 Credit Lecture Course

Instructor: Aarthi Narayanan, Ph.D.
Office: Biomedical Research Laboratory, PW Campus
Office Hours: by appointment – contact by email
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COURSE OVERVIEW:

| Date | LECTURE TOPIC |
|----------------|--|
| Aug 26 | Transcriptional Control of Gene Expression (Part I) |
| Sept 2 | Transcriptional Control of Gene Expression (Part II) |
| Sept 9 | Post Transcriptional Gene Control |
| Sept 16 | No class – study time |
| Sept 23 | EXAM 1 |
| Oct 30 | Cytoskeleton - Actin |
| Oct 7 | Cytoskeleton - Microtubules |
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| Oct 14 | Moving proteins into membranes and organelles |
| Oct 21 | Vesicular traffic, secretion and endocytosis |
| Oct 28 | No class - study time |
| Nov 4 | EXAM 2 |
| Nov 11 | Signal Transduction & Short-Term Cellular Responses |
| Nov 18 | Signal transduction – part 2 |
| | Cell cycle and apoptosis |
| Dec 9 | EXAM 3 |

COURSE LOGISTICS:

Recommended Textbook and Links to Companion Websites:

Molecular Cell Biology, 7th Edition.
Lodish, Berk, Krieger, Kaiser, Scott, Bretscher, Ploegh, Matsudaira

7th edition companion website:

<http://bcs.whfreeman.com/lodish7e/>

Course Pre-requisites or Permission of Instructor:

To enroll in BIOL 682 you must have completed BIOL 484 or an equivalent transferred course credit in introductory Molecular Cell Biology; CHEM 313, 314 or equivalent transferred course credits in Biochemistry. In lieu of these course pre-requisites, registration will only be possible by first obtaining permission of the instructor.

Policies on Course Examinations:

- The class will consist of (3) in-class examinations. All examinations will take place on the date specified in the course syllabus, and as such, **NO** make-up examinations will be allowed unless the student has received prior approval from the Instructor.
- If, for any reason, the class does not meet on a scheduled exam day, the test will be given during the next scheduled course meeting.

Grading:

Grading for this course will be based upon (3) in-class exams. Each exam will account for 33.3% of your final grade. Exam questions may be taken from any material presented in lecture or in any assigned readings. Exams will consist of short answer and/or essay-style questions.

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|--------|-------|
| Exam 1 | 33.3% |
| Exam 2 | 33.3% |
| Exam 3 | 33.3% |

Final Grade Scale: these are approximate ranges only.

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|-----------|---|----|
| 90 – 100% | = | A |
| 80 – 89% | = | B |
| 70 – 79% | = | C |
| 60 – 69% | = | C- |
| < 60% | = | F |

Observance of the George Mason University Honor Code:

- All students enrolled in this course will be subject to strict adherence to the GMU Honor Code that both protects honest students and maintains the academic integrity and reputation of George Mason University, and the value of the degree herein earned.
- The Instructor is committed to the support of both personal honesty and refusal to tolerate in any manner dishonesty in others in accordance with the University Honor Code.

Students are encouraged to report any suspected Honor Code violations to the Instructor and/or University Honor Code Committee.