

COURSE POLICIES AND SYLLABUS
CELL BIOLOGY AS.020.306 SPRING 2019

Learning Goals

- Describe the structure and function of cellular components.
- Explain how cellular components are localized and organized.
- Explain the regulatory mechanisms that enable diversity and dynamics of cellular components.
- Recognize, discuss examples, and apply common themes in cell biology.
- Propose experiments to answer questions or test hypotheses about cellular structures and functions.
- Predict experimental results, interpret experimental data, and use experimental evidence to generate and/or support a hypothesis.

Specific learning objectives for each section of the course will be posted on Blackboard. Course material and assessments will be based on the learning goals and objectives. We encourage you to use the learning goals and objectives to guide your learning process during the course.

Course Instructors

Dr. Katie Tifft
Dr. Yumi Kim

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Office: 385 UTL

Course Administration

Dr. Tifft will be the course administrator who will handle course organization and logistics. If you have any questions about the course that are not directly related to the course content, please first check Blackboard and Piazza for relevant information and then contact Dr. Tifft by through Piazza (or by email).

Textbook

Bruce Alberts, et al. Molecular biology of the cell. Garland Science, 2015. 6th edition.

ISBN: 9780815344322 Reading assignments for each class will be posted on Blackboard.

The textbook is recommended but not required- all course material will be covered in class or through class materials provided online, but you may find the textbook is a good extra resource. A copy of the book is available in the reference section of the library.

Assignments

Assignments include any graded activities (other than exams) that are completed during or outside of class. Assignments for each class will be posted on Blackboard on the Assignment List. Please check the assignment list frequently for any updates. Assignments will include textbook reading (optional), pre-class videos, and on-line homework assignments due before class. We highly encourage working together on the online homework assignments, but it is important that you practice answering questions yourself and fully understand the reasoning for each answer. After the due date, homework scores and answers will be available in the Blackboard gradebook. Class content will be based upon the assumption that you have completed the assignments so you will get the most of class if you complete the relevant assignments before class.

Grades on assignments will be used to generate a weekly assignment score that will be an average of all assignments due during that week. The lowest weekly assignment score will be dropped. The score for each week (excluding the lowest weekly score) will be weighted equally and used to calculate the overall assignment average. The weekly assignment score will be worth 4% of the course grade. Late or make-up assignments will not be accepted. Please contact Dr. Tiffitt if you have any questions or concerns about missing assignments.

Classes

Completing the assignments before class will allow you to make the most effective use of the time in class. Class material (including Powerpoint slides) will be posted on Blackboard prior to each class. Classes will be recorded and available through Blackboard. *Please note that due to unanticipated technical difficulties, we cannot guarantee that every class will be recorded.* Materials which may include final annotated powerpoint presentations and worksheets will be posted after the class. Please contact Dr. Tiffitt if you have any questions about these materials.

Clicker Questions

Clicker questions will be used in class to help you engage in learning and practice thinking about the material. Your participation in these questions is highly encouraged. Clicker participation credit will be given for each class if you answer all questions or miss only one (in other words, if you miss more than one question in a session you will not get credit). We consider answering clicker questions as part of the learning experience and it is ok (and valuable!) to get questions wrong. Therefore, so participation credit is not based on responding correctly. Credit will not be given if your clicker is not working or you forget it. It is against ethics rules to use another student's clicker or to ask another student to use your clicker to obtain participation credit if you are not present. You will be able to track the record of your participation on Blackboard (1 point per day). If you are not receiving clicker credit, please contact Dr. Tiffitt. Students with credit for 80% or more of the classes will earn a "bonus" 0.5% added to the final course grade.

Questions About Course Material

Questions may be asked in person during class, study sessions, and office hours or online through Piazza (not by email). Using Piazza allows the entire class to benefit from the questions and answers. We encourage you read and answer the questions posted on piazza by other students as well as asking your questions. The Learning Den (www.jhu.edu/academic-assistance) will also provide tutoring. Please contact Dr. Tifft if you have any questions about getting your questions answered.

Study Sessions and Office Hours

Study sessions (optional) and office hours will be offered daily throughout the semester to address questions about class material, homework assignments, tests, etc. During study sessions students will be encouraged to work in small groups to discuss questions about the material. A teaching assistant (graduate student) will be present to facilitate the session and answer questions as needed. During office hours, instructors will answer questions and guide conversations in a group setting including all students who attend. If you would like to speak with an instructor individually for any reason, please contact us by email or Piazza to make an appointment. The schedule for study sessions and office hours will be announced in class and posted on Piazza/Blackboard.

Exams

There will be three midterm exams and one cumulative final exam. Each exam will be worth 100 points. Each exam will be weighted heavily towards the material covered since the previous exam. Some questions will require knowledge of material previously covered and, in this sense, all exams are somewhat cumulative. The Final Exam will include all class material including the last three classes on special topics. We will hold a review session (question and answer format) in the evening before each exam. More information on exams will be provided during class and on Blackboard.

You must take all exams and all four exam scores will be used to calculate your final grade. If you miss an exam without a valid excuse (see absences below), the exam score will be zero. Exams grading is designed so that the grade is dependent on mastery of the material and everyone in the class can do well. Exam grades will be individually normalized to the top 2% of scores and the normalized scores will be used in course grade calculations.

Grades

Grades in this course are based on three midterm exams, a final exam, and weekly assignments. The grade will be calculated in two different ways (see below). The method that results in the highest score for each individual student will be used to assign their letter grade.

	Method 1	Method 2
Assignments	4% (Lowest weekly assignment grade dropped)	4% (Lowest weekly assignment grade dropped)
Midterm Exams	72% (24% each exam)	60% (24% for best two, 12% for lowest)
Final Exam	24%	36%

Letter grades will be assigned at the end of the course according to the scale below. There will be no curving or rounding of grades or extra credit assignments.

Grading Scale:

$X \geq 100 = A+$	$74 \geq X > 69 = C+$
$100 \geq X > 93 = A$	$69 \geq X > 64 = C$
$93 \geq X > 89 = A-$	$64 \geq X > 60 = C-$
$89 \geq X > 85 = B+$	$60 \geq X > 50 = D$
$85 \geq X > 79 = B$	$50 \geq X = F$
$79 \geq X > 74 = B-$	

Absences

If you miss individual classes, there is no need to contact any of the instructors. However, if you miss multiple classes and are concerned about your clicker participation grade, assignment grade, or ability to get caught up on the material, you can contact Dr. Tiff. Excused absences from exams are granted only in the case of illness. Illness excuses must be accompanied by the appropriate documentation from Health and Wellness. An unexcused absence from an exam will automatically be graded as “zero” and will be used when tabulating the final grade. We will not provide make-up exams. If you are sick or miss an exam for any reason, please contact Dr. Tiff.

Class Environment

We are committed to creating an inclusive environment for all students with diverse backgrounds, experiences, interests, identities, thoughts, and perspectives. An inclusive and collaborative environment in which everyone feels a sense of belonging enables the most effective, efficient, and valuable learning process for all. We highly value student contributions to the learning process and expect members of the class to treat others with respect. We are certain that everyone can learn the material and will do well if they put in the effort to keep up and actively engage with the material. If you ever have any questions, comments, requests, or concerns please don't hesitate to contact us.

Accommodations

Any student who may need accommodations should contact Dr. Tifft and Student Disability Services (385 Garland Hall, student disabilityservices@jhu.edu). Please confirm that Dr. Tifft is aware of all your specific needs as soon as possible and no later than Monday Feb 11. This advanced notice is necessary for us to make the appropriate arrangements for the first exam. If any circumstances arise during the semester that affect your performance in the course, please contact Dr. Tifft and/or the Office of Student Life for guidance and assistance.

Copyright

All course materials are the property of JHU and are to be used for the student's individual academic purpose only. Any dissemination, copying, reproducing, modification, displaying, or transmitting of any course material content for any other purpose is prohibited, will be considered misconduct under the JHU Copyright Compliance Policy

https://www.jhu.edu/assets/uploads/2016/11/compliance_policy.pdf, and may be cause for disciplinary action. In addition, encouraging academic dishonesty or cheating by distributing information about course materials or assignments which would give an unfair advantage to others may violate University rules regarding Academic Integrity and Student Conduct. Specifically, recordings, course materials, and lecture notes may not be exchanged or distributed for commercial purposes, for compensation, or for any purpose other than use by students enrolled in the class. Other distributions of such materials by students may be deemed to violate the above University policies and be subject to disciplinary action.”

Cheating and other ethical violations

The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Report any violations you witness to the instructor. You may consult the associate dean of student conduct (or designee) by calling the Office of the Dean of Students at 410-516-8208 or via email at integrity@jhu.edu. For more information, see the Homewood Student Affairs site on academic ethics: (<https://studentaffairs.jhu.edu/student-life/student-conduct/academic-ethics-undergraduates>) or the e-catalog entry on the undergraduate academic ethics board: (<http://e-catalog.jhu.edu/undergrad-students/student-life-policies/#UAEB>). If you have questions about this policy as it relates to this course, please ask Dr. Tifft.

Information provided in this document is subject to change.

Syllabus

Day	Date	Month	Topic	Instructor
M	28	January	1- Introduction to Cell Biology	Tifft
W	30	January	2- Experimental Approaches	Tifft
F	1	February	3- Cell Architecture	Tifft
M	4	February	4- Cell Biology of Tissues	Tifft
W	6	February	5- Nucleus: Structure and Function	Tifft
F	8	February	6- Nucleus: Chromatin	Tifft
M	11	February	7- Nucleus: Organization	Tifft
W	13	February	8- Nucleus: Transport	Tifft
F	15	February	9- Endomembrane System: Co-translational Translocation	Tifft
M	18	February	10-Endomembrane System: Endoplasmic Reticulum	Tifft
W	20	February	11-Synthesis and Practice	Tifft
F	22	February	Exam 1: Classes 1-11	
M	25	February	12-Endomembrane System: Vesicle Transport	Tifft
W	27	February	13- Endomembrane System: Golgi	Tifft
F	1	March	14-Endomembrane System: Lysosomes	Tifft
M	4	March	15- Endomembrane System: Endocytosis	Tifft
W	6	March	16-Endomembrane System: Disease	Tifft
F	8	March	17-Signaling: Introduction and G protein-coupled receptors	Kim
M	11	March	18-Signaling: G protein-coupled receptors II	Kim
W	13	March	19-Signaling: Receptor Tyrosine Kinases and MAP Kinase	Kim
F	15	March	20-Signaling: Integrin and Survival Signals	Kim
M	18	March	Spring break	
W	20	March	Spring break	
F	22	March	Spring break	
M	25	March	21-Signaling: Cell Death and Apoptosis	Kim
W	27	March	22- Synthesis and Practice	Tifft/Kim
F	29	March	Exam 2: Classes 12-22	
M	1	April	23-Cytoskeleton: Introduction	Kim
W	3	April	24- Cytoskeleton: Filament Dynamics	Kim
F	5	April	25- Cytoskeleton: Regulation	Kim
M	8	April	26-Cytoskeleton: Motors	Kim
W	10	April	27- Cytoskeleton: Motility	Kim
F	12	April	28- Cell cycle : Mitosis	Kim
M	15	April	29- Cell Cycle : Cell Cycle Control	Kim
W	17	April	30- Cell Cycle: G11/S	Kim
F	19	April	31-Cell Cycle: Checkpoints	Kim
M	22	April	32-Cell Cycle: Meiosis	Kim
W	24	April	33-Synthesis and Practice	Kim
F	26	April	Exam 3: Classes 23-33	
M	29	April	34-Special topics	
W	1	May	35-Special Topics	
F	3	May	36-Special Topics	
FINAL EXAM (cumulative including classes 1-36)				