SYLLABUS

Semester: Fall 2020

Course Name: BIOL1306.004. Biology for science majors I (Lecture)
Meeting time: ZOOM /ONLINE combination, TR 8:00-9:15am
Office Hours: by ZOOM only; TR 1:00-3:30pm, or by appointment
Instructor: Dr. Alexandra Martynova-Van Kley, Professor, Biology department
avankley@sfasu.edu

WELCOME: This course is designed to introduce you to the essential principles, processes and mechanisms of molecular and cell biology. Course objectives: to develop a basic understanding of the mechanisms of life on a cell level; to gain an understanding how cells and organisms interrelate. Corequisite: BIOL 1106 – Biology for Science Majors I(Lab)

ATTENDANCE: You are expected to attend all ZOOM livestreams according to the schedule (link is provided on D2L) – attendance will be monitored. You will be expected to study all prior material available on-line before attending the livestreams. If you miss ZOOM meeting for unavoidable reasons, make sure you notify me. Missing an exam will be permitted only by prior arrangement and make-ups will only be allowed in the case of a University approved absence (illness with a doctor's note, a family crisis, or a religious holiday).

ZOOM RULES: Sign in with your full first name and last name as listed on the class roster. No nickname please when you log in. It makes it impossible to know who is in attendance. Users who do not provide their full names will mark as un-attendant. Stay focused: close any apps on your device that are not relevant and turn off notifications. Turn on your video when possible. It is helpful to be able to see each other, just as in an in-person class. Mute your microphone when you are not talking. This helps eliminate background noise. Use a headset when possible, this improves audio quality. Be in a quiet place when possible. Turn off any music, videos, etc. in the background. No disrespect or hate speech - just like in our in-person class, respectful behavior is expected. Consider Zoom a professional environment, and act like you’re at a job interview, even when you’re typing in the chat.

NOTE: Class meetings on Zoom (including video, audio, and chat text) will be recorded.

MATERIALS: PowerPoint presentations for each lecture will be online along with the lecture videos, according to the provided schedule of the course, so that notes can be made and used during the exam. REMEMBER: draw it to know it! Textbook is optional for this course: Campbell Biology, 11th edition. Urry LA, Cain ML, Wasserman SA, Minorsky PV, and Reece JB; Pearson, 2017.

GRADING CRITERIA:

Lecture Exams (all together) - 75 pts
BIOL1106 grade – 25
Bonus points – up to 2 points to the Final grade will be assigned to each student according to attendance, participation in Livestream meetings, course evaluation completion, SI meetings, office hour visits.

CLASS WEB-PAGE: https://martynova-vankley.com/courses/BIOL1306.004-TR

COMUNICATION: ZOOM office hours or by appointment set over an e-mail avankley@sfasu.edu (please do not email through D2L if you would like to get a quick reply). When emailing please indicate BOTH class & section # and your CID. When attaching a file, filename should be “First_LastName.ext”, it must also include your name in the document itself. Emails lacking any of the information listed above WILL BE IGNORED. No emails will be answered after 5 p.m. and/or during weekends. NO GRADE DISCUSSION over an e-mail, only by one on one ZOOM meetings.

SI: MW 5-6pm, a hybrid in person/online style of tutoring. Walk in tables are R 6-7pm. SI is Ariana Moorer, mooreran@jacks.sfasu.edu. You're invited to Ariana’s new group 'BIO 1306' on GroupMe.
https://groupme.com/join_group/61342912/ZHsKULA3
### SCHEDULE (tentative):

<table>
<thead>
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<th>Week</th>
<th>Activity</th>
<th>Topics</th>
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| 1 | 8/24-8/28 T: Class Zoom meeting (link available on D2L)  
| 2 | 8/31-9/4 T: On-line  
| 3 | 9/7-9/11 T: Class Zoom meeting (Your Questions before Exam)  
R: Exam 1 (D2L Brightspace) | |
| 4 | 9/14-9/18 T: On-line  
| 5 | 9/21-9/25 T: On-line  
R: On-line | |
| 6 | 9/28-10/2 T: Class Zoom meeting (Your Questions before Exam)  
R: Exam 2 (D2L Brightspace) | |
| 7 | 10/5-10/9 T: On-line  
R: On-line | |
| 8 | 10/12-10/16 T: On-line  
R: On-line | |
| 9 | 10/19-10/23 T: Class Zoom meeting (Your Questions before Exam)  
R: Exam 3 (D2L Brightspace) | |
| 10 | 10/26-10/30 T: On-line  
| 11 | 11/2-11/6 T: On-line  
R: On-line | |
| 12 | 11/9-11/13 T: Class Zoom meeting (Your Questions before Exam)  
R: Exam 4 (D2L Brightspace) | |
| 13 | 11/16-11/20 T: On-line  
| 14 | 11/23-11/27 Thanksgiving Break!!! | |
| 15 | 11/30-12/4 T: On-line  
R: Class Zoom meeting (Your Questions before Final) | |
| 16 | 12/7-12/11 T: -  
R: Final Exam (D2L Brightspace) (comprehensive) - December 10 at 8:00AM-9:30AM | |

### PROGRAM LEARNING OUTCOMES: Each of the student learning outcomes listed above address the Biology Department Program Learning Outcomes as follows:

#1 Demonstrate a good knowledge base in biological concepts and be able to integrate knowledge with critical thinking skills to become problem solvers. Knowledge base will include levels of complexity (molecular/cellular through population/communities/ecosystems); biological principles and processes.  
#6 Career building demonstrate preparation for future career and educational goals utilizing the knowledge and training during their academic program by: awareness of personal competencies (strengths and weaknesses) and an understanding of professional and ethical behavior.

### STUDENT LEARNING OUTCOMES (Course Competencies): Students who successfully complete Principles of Cell and Molecular Biology will demonstrate:  
1. The ability, for animal cells, to recognize and identify the function(s) of the following: centrioles, chromatin, Golgi apparatus, lysosome, microfilaments, microtubules, mitochondrion, nucleus, peroxisome, plasma
membrane, rough and smooth endoplasmic reticulum, and ribosomes. 2. The ability, for plant cells, to recognize and identify the function(s) of the following: cell wall, chloroplast, and central vacuole. 3. An understanding of the ability of enzymes to facilitate chemical reactions. Explain how catalysts, including enzymes, affect and are affected by the chemical reactions in which they participate. 4. An understanding of the biochemical processes of photosynthesis, glycolysis, citric acid cycle, and oxidative phosphorylation. Define cellular respiration and identify the cellular locations of the various stages of cellular respiration. Distinguish between the light reactions and the Calvin cycle of photosynthesis. 5. An understanding of how cells grow and divide. Describe the major events of each of the stages of the cell cycle (Interphase, G1, G2, S, Mitosis, Prophase, Prometaphase, Metaphase, Anaphase, Telophase, Mitotic Phase and Cytokinesis). 6. Explain how information flows from gene to protein. Describe the major events including transcription, translation and protein sorting. Explain the function of mRNA and tRNA. Describe how gene expression can be affected at various levels: DNA packing/unpacking and chemical modification.

ACADEMIC HONESTY: All exam work submitted for grading must be exclusively your own. Any dishonesty or cheating may result in a final score of zero (“F”) for the course. SFA Policy A-9.1 is summarized as: “Faculty members promote academic integrity in multiple ways including instruction on the components of academic honesty, as well as abiding by university policy on penalties for cheating and plagiarism. Academic dishonesty includes both cheating and plagiarism. Cheating includes but is not limited to (1) using or attempting to use unauthorized materials to aid in achieving a better grade on a component of a class; (2) the falsification or invention of any information, including citations, on an assigned exercise; and/or (3) helping or attempting to help another in an act of cheating or plagiarism. Plagiarism is presenting the words or ideas of another person as if they were your own. Examples of plagiarism are (1) submitting an assignment as if it were one's own work when, in fact, it is at least partly the work of another; (2) submitting a work that has been purchased or otherwise obtained from an Internet source or another source; and (3) incorporating the words or ideas of an author into one's paper without giving the author due credit.”

STUDENTS WITH DISABILITIES: To obtain disability related accommodations, alternate formats and/or auxiliary aids, students with disabilities must contact the Office of Disability Services (ODS), Human Services Building, and Room 325, 468-3004 / 468-1004 (TDD) as early as possible in the semester. Once verified, ODS will notify the course instructor and outline the accommodation and/or auxiliary aids to be provided. Failure to request services in a timely manner may delay your accommodations. For additional information, go to http://www.sfasu.edu/disabilityservices/.

CLASSROOM EXPECTATIONS: Standard classroom decorum is expected. Please do not carry on a separate conversation that might be distracting to other students. If you have a cell phone or pager, please make sure it is either turned off or set to silent operation. Behavior that interferes with the learning environment will not be tolerated. If necessary, students violating these standards will be removed from the classroom. Additionally, please arrive in class a bit early as we will be starting promptly on time. WITHHELD GRADES, SEMESTER GRADES POLICY (SFA POLICY A-54). Ordinarily, at the discretion of the instructor of record and with the approval of the academic chair/director, a grade of WH will be assigned only if the student cannot complete the course work because of unavoidable circumstances. Students must complete the work within one calendar year from the end of the semester in which they receive a WH, or the grade automatically becomes an F. If students register for the same course in future terms the WH will automatically become an F and will be counted as a repeated course for the purpose of computing the grade point average. The circumstances precipitating the request must have occurred after the last day in which a student could withdraw from a course. Students requesting a WH must be passing the course with a minimum projected grade of C.

COVID-19 mask policy:

Masks (cloth face coverings) must be worn over the nose and mouth at all times in this class and appropriate physical distancing must be observed. Students not wearing a mask and/or not observing appropriate physical distancing will be asked to leave the class. All incidents of not wearing a mask and/or not observing appropriate physical distancing will be reported to the Office of Student Rights and Responsibilities. Students who are reported for multiple infractions of not wearing a mask and/or not observing appropriate physical distancing may be subject to disciplinary actions.