

## BIO 324 CELL BIOLOGY, FALL 2010

**Instructor:** Dr. Stephen J. Juris

**Classroom:** Brooks 203, MWF 9-9:50 AM

**Office:** Dow 338, Phone: 774-3257

**Email:** juris1sj@cmich.edu or stephen.j.juris@cmich.edu

**Office Hours:** Mondays and Wednesdays 10 AM-12 PM, or by appointment

**BLACKBOARD ACCESS:** <http://blackboard.cmich.edu>. Log in with your CMU Global ID and password. I will use Blackboard to post grades, email you, post lectures and homework, and post other relevant information. Powerpoint slides will be available no later than by 5 PM the day before lecture. Blackboard is a good way to communicate with other classmates and myself. It will be important for you to understand how to use Blackboard for this class, so if you have questions contact the help desk ([http://www.oit.cmich.edu/helpdesk/helpdesk\\_home.asp](http://www.oit.cmich.edu/helpdesk/helpdesk_home.asp)) or see me.

**COURSE DESCRIPTION:** Cell structure, nature and function of cell organelles, the plasma membrane, cell cycle, cell aging. The course will also cover basic biochemistry.

**REQUIRED TEXT:** Becker, W.M., Kleinsmith, L.J., Hardin, J., and Bertoni, G.P. (2009). The World of the Cell, 7<sup>th</sup> Ed. Benjamin/Cummings Publishing Co.

**OBJECTIVES:** The overall goal of this course is to explore the structure and function of cells. By the end of the course, the student will be expected to demonstrate an understanding of:

- Biological macromolecules, including nucleic acids, proteins, lipids, carbohydrates and enzymes
- Major metabolic pathways, including respiration and photosynthesis, synthesis and degradation of macromolecules, and cell signaling
- Membrane structure and function, including membrane transport, electrical potentials, cell junctions and matrix, exocytosis and endocytosis
- Organelle structure, function and targeting
- The cytoskeleton, including cell motility
- The cell cycle and cancer
- Information flow from DNA to RNA to protein, including protein targeting and sorting

**EXPECTATIONS:** This is a 300-level course and will be taught at a rigorous level. Students are expected to have taken BIO 101, BIO 105, or BIO 110; BIO 203 or BIO 218; BIO 208, as well as Introductory Chemistry. Organic Chemistry is also recommended. Students are expected to spend at least 2 hours per lecture period in preparation and study (= 6 hours per week). A major goal of this course is to encourage students to 'think biologically' with understanding rather than memorization.

**EVALUATION** will be based on the following:

<b>(1) Examinations</b>		<b>400 points</b>	<b>80%</b>
Exam 1	Monday, Sept. 20	90 points	18%
Exam 2	Wednesday, Oct. 13	90 points	18%
Exam 3	Monday, Nov. 8	90 points	18%
Final Exam	Monday, Dec. 6, 8-9:50 AM	130 points	26%

**(2) Homework** **100 points** **20%**

Several assignments throughout the semester will be conducted via Blackboard. Homework assignments will be posted on Blackboard no later than one week before the due date. Each homework assignment

will be worth 10 points. If you are unsure of how to complete these assignments, please contact Dr. Juris immediately. Assignments will be due at 8 AM on the date listed on the class schedule. Assignments managed in Bb cannot be turned in late, so do not wait until the last minute to complete them. Since students will be able to drop the lowest two grades on homework assignments, there will be no late assignments accepted under any circumstances. For assignments that you are able to view, save, and return to complete at a later time, it is advised that you print a copy of your questions. If you are unable to submit your assignment (due to computer/internet/technical reasons), you may submit your assignment in one of the following ways: (1) scan your printed/completed questions and email it to me at [juris1sj@cmich.edu](mailto:juris1sj@cmich.edu); (2) call my office at 989-774-3257 and leave a message where you clearly state your name, then read the entire text of you questions and answers (note: do not say “answer: A”, since Bb randomizes the questions and answers for multiple choice questions, you must read the text part of both the question and answer). Both of these submission methods have a time stamp associated with them and must be received within 30 minutes of the posted deadline for each assignment.

**COURSE GRADES** will be determined by % of total points achieved out of

A 93-100%	A- 90-92%	B+ 87-89%	B 83-86%	B- 80-82%	C+ 77-79%
C 73-76%	C- 70-72%	D+ 67-69%	D 63-66%	D- 60-62%	E Below 60%

Depending on class performance and average, these cutoffs may be adjusted.

**MISCELLANEOUS:** Students with extended absences due to illness or other excused reason should contact me about making up required coursework. The final exam will not be given at any other time, except for extraordinary excused absence. Make-up exams will be given only under extreme personal circumstances (illness, death in the family), extramural athletic participation, required field trips in other courses, or employment obligations, and must be approved in advance. A note from the appropriate authority must be provided. The policy for make-up exams is they are only given on the last day of Final Exam week – again this is only under excused circumstances. A grade of Incomplete will be given only to students who are passing the course, and, for some reason of emergency, fail to complete the course requirements. The last day to withdraw from class with an automatic W is 5 PM, Friday, October 29.

**ACCOMMODATIONS FOR STUDENTS WITH DISABILITIES:** CMU provides students with disabilities reasonable accommodation to participate in educational programs, activities or services. Students with disabilities requiring accommodation to participate in class activities or meet course requirements should register with the office of Student Disabilities Services (250 Foust Hall, Telephone #989-774-3018, TDD #2568), and then contact me as soon as possible.

**POLICY ON ACADEMIC INTEGRITY:** In May 2001, the Central Michigan University Academic Senate approved the *Policy on Academic Integrity*, which applies to all university students. Copies are available in the Academic Senate Office in room 108 of Bovee University Center and on the CMU website at <http://academicsenate.cmich.edu/noncurric.htm>. All academic work is expected to be in compliance with this policy.

**CLASSROOM CIVILITY:** Each CMU student is encouraged to help create an environment during class that promotes learning, dignity, and mutual respect for everyone. Students who speak at inappropriate times, sleep in class, display inattention, take frequent breaks, interrupt the class by coming to class late, engage in loud or distracting behaviors, use cell phones or pagers in class, use inappropriate language, are verbally abusive, display defiance or disrespect to others, or behave aggressively towards others could be asked to leave the class and subjected to disciplinary action under the *Code of Student Rights, Responsibilities and Disciplinary Procedures*.