



GMS 5057 | Medical Cell Biology

Class Number: 14061

Instructor Information

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Course Details

Catalog Description: Medical Cell Biology

Credit Hours: 3

Course Fees: \$0.00

Additional Course Description

Course Overview

This course focuses on the structure and function of human cells in the context of health and disease. Lectures focus on normal functions at the molecular and cellular level. Topics include cell function, cell interactions, cell regulation, cell signaling, and cell death. Examples of well-known disease mechanisms and/or therapeutic approaches are discussed in most lectures. Normal cell functions are contrasted to functional abnormalities underlying diseases and clinical manifestations. Therapeutic approaches are included to highlight cell biology interventions that improve disease prognosis.

Course Format

This course is offered online and timely viewing of course content is the student's responsibility. Most lectures are ~50 minutes long. The course web page provides links to lecture videos and lecture PDF files. During the fall and spring terms, at least 3 lectures should be viewed per week. During the summer term, at least 4 lectures should be viewed per week. Please note that closed captioning is available by selecting the "CC" button while viewing lecture videos. Importantly, exams are only available on specific days and at specific times on a modular schedule that is posted in Canvas.

Required Materials

MOLECULAR BIOLOGY OF THE CELL (SIXTH EDITION)

ISBN: 9780815345244

Authors: BRUCE ALBERTS (AUTHOR), ALEXANDER D. JOHNSON (AUTHOR), JULIAN LEWIS (AUTHOR), DAVID MORGAN (AUTHOR), MARTIN RAFF (AUTHOR), KEITH ROBERTS (AUTHOR),

Publisher: GARLAND SCIENCE

Edition: 6TH

All Access: This course does not use UF All Access

Course Goals and Objectives

Learning Objectives

The overarching learning objectives for this course are:

1. Describe the normal structure and function of human cells and their specializations and contrast these normal aspects to abnormalities characteristic of specific human disease states.
2. Explain the normal formation of the extracellular matrix in different human tissues and contrast normal aspects to abnormalities characteristic of specific human disorders or diseases.
3. Discuss the normal cell and matrix changes that occur during growth, development, and aging and compare normal changes to perturbations observed in syndromes that do not cause frank disease but cause changes in normal functions that give rise to clinical manifestations.

Expectations and Student Learning Outcomes

The general expectations for students are encompassed by three overarching learning objectives:

1. Describe the normal structure and function of different human cell types and their specializations and contrast these normal aspects to abnormalities characteristic of specific human disease states.
2. Explain the normal structure and function of the extracellular matrix in different human tissues and contrast normal aspects to abnormalities characteristic of specific human disorders and diseases.
3. Discuss the normal cell and matrix changes that occur during normal growth, development, and aging and compare them to perturbations observed in specific human disorders and diseases.

Methods of Evaluation

Quizzes

Fifteen weekly practice quizzes are given, consist of 9 questions each, and do not count towards the final grade. The format of quiz questions is multiple choice, single best answer, like exam questions.

Exams

There are 5 exams, one after each module. Exams are "closed book" and must be completed without notes or external resources of any kind. Each exam consists of 50 questions. All exam questions are multiple choice, single best answer.

Five questions are extra credit questions that can increase, but not decrease, exam scores. That is, final exam scores will be calculated on the basis of a total of 45 questions. Students have up to 100 minutes (2 minutes per question) to complete exams.

Grades

Final grades are based on cumulative percentage scores from the 5 module exams (225 points). Quiz scores do not count towards the final grade; practice quizzes are for review purposes only. All exam questions are worth 1 point (i.e., all exam questions have equal weight). Final grades will be based on the following ranges of cumulative percentage scores, after rounding up

Grading Scale

Letter grade and percentage	
Letter	Percentage Value
A	93 - 100%
A -	90 - 92.99%
B +	87 - 89.99%
B	83 - 86.99%
B -	80 - 82.99%
C +	77 - 79.99%
C	73 - 76.99%
C -	70 - 72.99%
D +	67 - 69.99%
D	63 - 66.99%
D -	60 - 62.99%
E	59% and below

Course Schedule

- Module 1 (11 May - 28 May)
- Practice Quiz 1.1 - suggested completion date: 14 May 2026 (Tr)
- Practice Quiz 1.2 - suggested completion date: 18 May 2026 (M)
- Practice Quiz 1.3 - suggested completion date: 22 May 2026 (F)
- EXAM 1 - required completion date range: 26 - 28 May 2026 (T-R)

- Module 2 (29 May - 15 June)
- Practice Quiz 2.1 - suggested completion date: 2 June 2026 (T)
- Practice Quiz 2.2 - suggested completion date: 6 June 2026 (Sa)
- Practice Quiz 2.3 - suggested completion date: 10 June 2026 (W)

EXAM 2 - required completion date range: 13 - 15 June 2026 (Sa-M)

Module 3 (16 June - 2 July)

Practice Quiz 3.1 - suggested completion date: 19 June 2026 (F)

Practice Quiz 3.2 - suggested completion date: 23 June 2026 (T)

Practice Quiz 3.3 - suggested completion date: 27 June 2026 (Sa)

EXAM 3 - required completion date range: 30 Jun – 2 Jul 2026 (T-R)

Module 4 (3 July - 21 July)

Practice Quiz 4.1 - suggested completion date: 7 July 2026 (T)

Practice Quiz 4.2 - suggested completion date: 11 July 2026 (Sa)

Practice Quiz 4.3 - suggested completion date: 15 July 2026 (W)

EXAM 4 - required completion date range: 19 - 21 July 2026 (Su-T)

Module 5 (22 July - 9 August)

Practice Quiz 5.1 - suggested completion date: 25 July 2026 (Sa)

Practice Quiz 5.2 - suggested completion date: 29 July 2026 (W)

Practice Quiz 5.3 - suggested completion date: 2 August 2026 (Su)

EXAM 5 - required completion date range: 7 - 9 August 2026 (F-Su)

Schedule of Assignments

Due Dates	Assignments	Type of Assignment	Points
5/28/26	Module 1 Exam	graded quiz	50
6/15/26	Module 2 Exam	graded quiz	50
7/2/26	Module 3 Exam	graded quiz	50
7/21/26	Module 4 Exam	graded quiz	50
8/9/26	Module 5 Exam	graded quiz	50

University Policies and Resources

Information about grading policies, support for students with disabilities, course evaluations, the Honor Code, and other course policies and campus resources can be found on the [Syllabus Policies page](#).

Attendance Policy

Excused and Unexcused Absences

Students may only participate in classes if they are registered officially or approved to audit with evidence of having paid audit fees. The Office of the University Registrar provides official class rolls to instructors.

Students are responsible for satisfying all academic objectives as defined by the instructor. Absences count from the first-class meeting.

Acceptable reasons for absence from or failure to engage in class include illness; Title IX-related situations; serious accidents or emergencies affecting the student, their roommates, or their family; special curricular requirements (e.g., judging trips, field trips, professional conferences); military obligation; severe weather conditions that prevent class participation; religious holidays; participation in official university activities (e.g., music performances, athletic competition, debate); and court-imposed legal obligations (e.g., jury duty or subpoena). Other reasons (e.g., a job interview or club activity) may be deemed acceptable if approved by the instructor.

For all planned absences, a student in a situation that allows an excused absence from a class, or any required class activity must inform the instructor as early as possible prior to the class. For all unplanned absences because of accidents or emergency situations, students should contact their instructor as soon as conditions permit.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during absence from class or inability to engage in class activities because of the reasons outlined above.

If a student does not participate in at least one of the first two class meetings of a course or laboratory in which they are registered, and they have not contacted the department to indicate their intent, the student can be dropped from the course. Students must not assume that they will be dropped, however. The department will notify students if they have been dropped from a course or laboratory.

The university recognizes the right of the instructor to make attendance mandatory and require documentation for absences (except for religious holidays), missed work, or inability to fully engage in class. After due warning, an instructor can prohibit further attendance and subsequently assign a failing grade for excessive absences.

Religious Holidays Guidelines

At the University of Florida, students and faculty work together to allow students the opportunity to observe the holy days of their faith. A student should inform the faculty member of the religious observances of their faith that will conflict with class attendance, with tests or examinations, or with other class activities prior to the class or occurrence of that test or activity. The faculty member is then obligated to accommodate that particular student's religious observances. Because students represent a myriad of cultures and many faiths, the University of Florida is not able to assure that scheduled academic activities do not conflict with the holy days of all religious groups. Accordingly, individual students should make their need for an excused absence known in advance of the scheduled activities.

The Florida Board of Education and state law govern university policy regarding observance of religious holidays.

Guidelines

- Students, upon prior notification to their instructors, shall be excused from class or other scheduled academic activity to observe a religious holy day of their faith.
- Students shall be permitted a reasonable amount of time to make up the material or activities covered in their absence.
- Students shall not be penalized due to absence from class or other scheduled academic activity because of religious observances.

If a faculty member is informed of or is aware that a significant number of students are likely to be absent from class because of a religious observance, the faculty member should not schedule a major exam or other academic event at that time.

A student who is to be excused from class for a religious observance is not required to provide a second party certification of the reason for the absence. Furthermore, a student who believes that they have been unreasonably denied an education benefit due to religious beliefs or practices may seek redress through the student grievance procedure.

Absence due to Illness

A student who is absent from class or any required class-related activity because of illness should contact their instructor, if feasible, as early as possible prior to the missed class or activity.

Students shall be permitted a reasonable amount of time to make up the material or activities covered during an excused absence.

Students should contact their college by the deadline to drop a course for medical reasons. Students can petition the Dean of Students Office to drop a course for medical reasons. The university's policy regarding medical excuse from classes is maintained by the Student Health Care Center.

Twelve-Day Rule

Students who participate in university-sponsored athletic or scholarly activities are permitted to be absent 12 scholastic days per semester without penalty. A scholastic day is any day on which regular class work is scheduled as defined in the approved university calendar.[More Info](#)

The student or student's advisor must notify the instructor as early as possible prior to the anticipated absence to allow ample time for accommodations. Instructors must be flexible and not penalize students when re-scheduling during-term and final exams, class assignments, and other required activities and must follow the UF Attendance Policy herein and UF Examination Policies. As noted in the UF Examination Policies, during-term exams should be re-scheduled no later than before the end of the semester, while final exams no later than 90 days after the originally scheduled exam time. However, instructors are encouraged to re-schedule final and during-term exams, assignments, and other activities as soon as possible after the last day of the absence and must not penalize the student in any way.[More Info](#)

A group's schedule that requires absence of more than 12 scholastic days should be adjusted so that no student is absent from campus more than 12 scholastic days. Students who previously have been warned in writing by their instructor about the impact of absences on their individual class performance should not incur additional absences, even if they have not been absent 12 scholastic days. The student is responsible to maintain satisfactory academic performance and attendance.

Course Policies and Resources

Academic Honesty

The Honor Code (<https://sccr.dso.ufl.edu/process/student-honor-code/>) and Conduct Code (<https://sccr.dso.ufl.edu/process/student-conduct-code/>) explain academic misconduct and possible sanctions. Students should report any academic misconduct and any situation that facilitates academic misconduct. Please email course faculty with any questions or to report misconduct.

UF students are bound by the Honor Pledge, which states:

"We, the members of the UF community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Student Honor Code and Conduct Code."

For all exams in this course, the following pledge is required or implied:

"By submitting this exam, I affirm, on my honor, that I have not given or received unauthorized aid." Moreover, I acknowledge that it is a violation of the Honor Code to capture or share this exam in any manner (e.g., download, duplicate, print, transcribe), in whole or in part, including taking screen shots or images with a computer, tablet, or camera, including a phone.

Accommodations

Students with disabilities requesting accommodations must register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to course faculty. Students should follow this procedure as early as possible in the semester.

Attendance

Requirements for class attendance and make-up work for this course are consistent with UF policies (<https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>).

Evaluations

Students are expected to provide feedback on instruction by completing online evaluations using this portal: <https://my-ufl.bluera.com>. Evaluations are typically open during the last two to three weeks of the semester. More information is available at: <https://gatorevals.aa.ufl.edu>.

Grading

UF policies are at: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>.

Health and Wellness

If you or someone you know is in distress, please contact 352-392-1575 or umatter@ufl.edu or visit <http://umatter.ufl.edu> to refer or report a concern.

Counseling and Wellness Services are available at 392-1575 or <https://counseling.ufl.edu>.

Emergencies

Dial 9-1-1 for emergencies or reach the UF Police Department at 392-1111.

Late and Make Up Work Policy

Make-up Assessments

Make-up exams will be given to students whose absence is excused by course faculty. Requests for make-up exams must be sent to course faculty via email with information about the reason for the absence. Absences from exams are not automatically excused. Students with unexcused absences will not have the option to take make-up exams. Students must adhere to UF Academic Honesty Policies and not give or accept unauthorized aid for make-up exams (see below).

Discrepancies

Students may uncover discrepancies between information in (1) lecture, (2) required textbooks, (3) other textbooks, (4) online content (e.g., Wikipedia), or (5) personal communication. Students are encouraged to communicate discrepancies to course faculty, who will resolve discrepancies.

Technology in the Classroom

Pre-recorded video lectures, course documents and exams will be available online through the Canvas course management system. Exams will be secured and proctored using HonorLock. Students are expected to have a computer that meet the minimum UF requirements. A web camera and microphone is required for taking the exams.

Honorlock

All exams require proctoring by Honorlock. Practice quizzes do not. Honorlock requirements include: computer, webcam, microphone, internet connection, Google Chrome, and the Honorlock Extension (<https://app.honorlock.com/install/extension>). Multiple monitors must be disabled.

Using Honorlock: Log into Canvas, go to course, and click on quiz. Click "Launch Proctoring" to begin the authentication process (take a picture of yourself, show your ID, and scan your room). Honorlock will record your exam session by webcam and record your screen. Honorlock has an integrity algorithm that detects the use of other resources, even on a second device.

Interruptions: Honorlock and Canvas allow interruptions due to internet problems or the need to restart a computer or tablet. Honorlock and Canvas will not time out an exam and will not prevent a student from resuming an exam after an internet problem or device restart. Honorlock will require authentication to resume but this should require only a short time.

Honorlock Practice Quiz: Please take the Honorlock Practice Quiz before taking an exam to ensure that the technical requirements for taking an exam with Honorlock have been satisfied.

UF online proctoring: <https://pfs.tnt.aa.ufl.edu/teaching-and-technology-resources/online-proctoring/>

Honorlock support: live chat (in Canvas), phone (844-243-2500), email (support@honorlock.com) or web (<https://honorlock.com/support> or link above).

Respondus

Optional exam reviews are given using the Respondus lockdown browser (which is different from Honorlock that is used to take exams). Review days and times will be announced in Canvas. Take the practice quiz in Canvas to install the Respondus lockdown browser.