

**ACADEMIC SENATE PROPOSAL TRACKING SHEET**  
**(Document To Be Originated by the Academic Senate Secretary On Canary Color Paper)**

<b>Proposal # 23-18</b>	<b>Title: New Course Proposal - BIOM 363 Eukaryotic Cell Biology</b>
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(Proposal explanation, submitter and college dean signatures on attached program/degree or course revision form.)

**All proposals MUST have their originating college faculty body (Arts, Sciences & Education; Health Sciences; Technical Sciences) approval and must be signed by the submitter and the college dean before being submitted to the Academic Senate Secretary.**

1. Submit all proposals (using the appropriate Academic Senate program/degree and/or course revision forms or General Education Inclusion form) to the Academic Senate Secretary. **NOTE: Level 1 or Level 2 forms must be submitted concurrent with this proposal where applicable. For Education proposals, PEU approval must be received prior to forwarding the proposal to the Senate.**
2. The Academic Senate Secretary logs and numbers items and forwards them to the appropriate Academic Senate subcommittee(s): General Education (if applicable), or Curriculum. A digital copy of the proposal will be linked on the Academic Senate Proposal page by the Academic Senate Secretary.
3. The Academic Senate subcommittee(s) consider(s) the proposal. If approved, the proposal is returned to the Academic Senate Secretary for forwarding to the next committee. If a committee disapproves the proposal, the committee will provide written rationale to the originator, via the Academic Senate.\* The originator may request that the item be forwarded to the next body for consideration. Upon completion of subcommittee action, the proposal will be returned to the Academic Senate Secretary for consideration at the next Academic Senate meeting.
4. The Academic Senate considers the proposal and recommends approval or disapproval. If approved, the proposal is forwarded to the Provost for consideration within 10 working days. If the Academic Senate disapproves the proposal, the Academic Senate will provide written rationale to the originator. \* The originator may request that the item be forwarded to the Full Faculty for consideration, utilizing procedures set forth in the Senate Bylaws.
5. Approved proposals will be forwarded to the Provost. The Provost approves or disapproves the proposal. If approved, the proposal is then forwarded to the Chancellor. From this point forward, the Provost's Administrative Assistant will update the Proposal page on the website by contacting the webmaster.
7. The Chancellor approves or disapproves the proposal.
8. If approved, the proposal will then either be implemented or referred to MSU for further action. The tracking page on the Provost site will be updated as required.

**Subcommittee and Academic Senate college representatives will notify their respective colleges of the progress of submitted proposals or the proposal may be tracked via the web page -- <http://www.msun.edu/admin/provost/senate/proposals.htm>**

**Documentation and forms for the curriculum process are also available on the web page: <http://www.msun.edu/admin/provost/forms.htm>**

**\* If a proposal is disapproved, it is returned to the Dean of the submitting college who then notifies the originator.**

**See back for tracking form**



	Date	Action Taken	Signature	Date	Comments/Reason for Disapproval	Sent to	Date	Transmittal E-mail sent
Received by Senate Secretary	12/1/2023	Tracking form initiated	<small>DocuSigned by:</small> Brittany Garden	12/1/2023		Sent to Curriculum Committee	12/1/2023	DocuSign
General Education Committee (if applicable)		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<small>DocuSigned by:</small> 7131CC9454D9458					
Curriculum Committee (if applicable)	3/14/2024	<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<small>DocuSigned by:</small> Casey Donovan	3/14/2024	Need yo check with Giuseppe if the prereqs are correct	Giuseppe		
Academic Senate	3/22/2024	<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<small>DocuSigned by:</small> Valerie Guggant	3/22/2024				
Provost		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<small>DocuSigned by:</small> [Signature]	6/04/24				
Chancellor		<input checked="" type="checkbox"/> Approved <input type="checkbox"/> Disapproved	<small>DocuSigned by:</small> Dungy D. Keyel	6-4-2024				
MSU		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved	N/A					
BOR		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
NWCCU		<input type="checkbox"/> Approved <input type="checkbox"/> Disapproved						
Provost		Advise originating college and Academic Senate of status. Update Web page.						
Registrar		Catalog/Policy Manual Update						

**NOTE:** The secretary of the Academic Senate will update the Academic Senate Proposal web page from initial receipt until the proposal reaches the Provost. The Provost's Administrative Assistant will ensure that the current status of each proposal is maintained on the Academic Senate Proposal web page from that point forward.

Academic Senate Form 1 (Revised 4/4/2023)



**COURSE REVISION FORM**NEW X DROPPED \_\_\_\_\_ MAJOR REVISION X FOR INFORMATION ONLY \_\_\_\_\_

- For purposes of this form, "For Information Only" should be used for catalog description or objective changes ONLY

College Arts, Sciences & Education Program Area Biology (B65)
 Submitter Giuseppe Cortese Signature  
 Dean Beth N. V. ... Signature (indicates "college" level approval) Date 4/5/2024
**Please provide a brief explanation & rationale for the proposed revision(s):**

This course is a required course in the proposed Biology Biomedical Sciences & Human Health Track.

**Course Prefix & No.:** BIOM 363**Current Course Title:****Proposed Course Title (when applicable):** Eukaryotic Cell Biology**Current # of Credits:****Proposed # of Credits (when applicable):** 3**[please specify degrees]:****Required by:** Biology – Biomedical Sciences & Human Health Track**Selective in:****Elective in:****General Education Category:****Lecture:** 3**Lecture/Lab:****Gradable Lab:****Lecture contact hours per week:** 3**Lab contact hours per week:****Current Catalog Description (include all prerequisites):****Proposed or New Catalog Description (include all prerequisites):**

This course is a survey of the structure and function of eukaryotic cells. Students explore the existence of life at the cellular and molecular level by focusing on many aspects of cellular biology; including protein synthesis and function, the structural and functional role of the cell membrane, cellular organelles, the organization of cells into tissues, signal transduction and cell-to-cell communication, experimental applications in cell biology, and the cellular and molecular mechanisms that underlie the disease phenotype. Prerequisites: BIOB 160/161 Principles of Living Systems Lecture and Lab; BIOB 170/171 Organismal Diversity & Evolution Lecture and Lab; CHMY 141/142 College Chemistry I Lecture and Lab

**Course Outcomes/Objectives:**

1. Identify and describe the structural composition and functional role of the eukaryotic cell.
2. Understand the functional role of intracellular organelles, and determine how these roles influence cellular processes.
3. Demonstrate an understanding of protein synthesis and post translation modifications.
4. Identify the components of cellular signaling pathways.
5. Understand the cellular role of tissue function.
6. Demonstrate competency in interpreting scientific data related to cell biology.
7. Explain the cellular mechanisms of disease.

**Please note additional instructional resources needed, if any (including library materials, special equipment, and facilities). Approval does not indicate support for new faculty or additional resources.**

No additional resources anticipated.

# Lecture Syllabus

# Cell Biology

**Instructor:** Dr. Giuseppe P. Cortese  
**Email:** [giuseppe.cortese@msun.edu](mailto:giuseppe.cortese@msun.edu)  
**Office:** HSC 207  
**Office Hours:**

**Room:**  
**Lecture Time:**  
**Term:**

## Lecture

All lectures will meet in-person. Attendance is not required, but highly recommended. Student success depends highly on lecture attendance. In addition to textbook readings, topics discussed in lecture and contents on lecture slides may also appear on quizzes and exams. Additionally, lecture offers the opportunity for beneficial collaborations and discussions with your peers. This is a challenging course, so please be prepared to spend a significant amount of time outside of class studying.

## Course Description

This course is a survey of the structure and function of eukaryotic cells. Students will explore the existence of life at the cellular and molecular level by focusing on many aspects of cellular biology; including protein synthesis and function, the structural and functional role of the cell membrane, cellular organelles, the organization of cells into tissues, signal transduction and cell-to-cell communication, experimental applications in cell biology, and the cellular and molecular mechanisms underlying disease phenotype.

## Learning Objectives

1. Identify and describe the structural composition and functional role of the eukaryotic cell.
2. Understand the functional role of intracellular organelles, and determine how these roles influence cellular processes.
3. Demonstrate an understanding of protein synthesis and post translation modifications.
4. Identify the components of cellular signaling pathways.
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6. Demonstrate competency in interpreting scientific data related to cell biology.
7. Explain the cellular mechanisms of disease.

## General Education Outcomes

1. Demonstrate in-depth knowledge of the principles underpinning cellular biology.
2. Communicate scientific information in a clear and concise manner both written and orally.
3. Effectively collaborate with peers through group-work.

## Brightspace

## Required Materials

1. Essential Cell Biology Textbook, 6<sup>th</sup> edition, Alberts, et al. (Norton Publishing).
2. Computer & Internet Access to Brightspace.

**COURSE REVISION FORM**NEW  X  DROPPED \_\_\_\_\_ MAJOR REVISION  X  FOR INFORMATION ONLY \_\_\_\_\_

- For purposes of this form, "For Information Only" should be used for catalog description or objective changes ONLY

College **Arts, Sciences & Education** Program Area **Biology (B65)**Submitter \_\_\_\_\_ Dean \_\_\_\_\_ Date \_\_\_\_\_  
Signature Signature (indicates "college" level approval)**Please provide a brief explanation & rationale for the proposed revision(s):**

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**Course Outcomes/Objectives:**

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**Please note additional instructional resources needed, if any (including library materials, special equipment, and facilities). Approval does not indicate support for new faculty or additional resources.**

No additional resources anticipated.



**Lecture Syllabus****Cell Biology****Instructor:** Dr. Giuseppe P. Cortese**Room:****Email:** [giuseppe.cortese@msun.edu](mailto:giuseppe.cortese@msun.edu)**Lecture Time:****Office:** HSC 207**Term:****Office Hours:****Lecture**

All lectures will meet in-person. Attendance is not required, but highly recommended. Student success depends highly on lecture attendance. In addition to textbook readings, topics discussed in lecture and contents on lecture slides may also appear on quizzes and exams. Additionally, lecture offers the opportunity for beneficial collaborations and discussions with your peers. This is a challenging course, so please be prepared to spend a significant amount of time outside of class studying.

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**Brightspace****Required Materials**

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## Supplemental Materials & Resources (not required)

### General Policies

#### *Lecture*

1. Attendance in Lecture is **not** required. However, attendance will be critical for student success in this course.
2. This class is graded on a point system (total points). Grades will be made up of a combined point total from lecture and laboratory. There is no curve. There are no extra credit opportunities in this class.
3. A course Brightspace will be used for all lecture materials. The Brightspace page will contain the course announcements, course syllabus, course materials and lecture slides, gradebook, and instructor contact information. Answer keys for quizzes will be posted, but exams will not. Please make an appointment or attend office hours to discuss exam scores.
4. Lecture exam and quiz questions will mainly derive from the posted lecture slides, material that comes directly from the textbook chapters. Questions will also contain content discussed in lecture, which may not be in the textbook. All of the listed contents are fair game for exam and quiz questions.
5. It is recommended that students read the chapters from the textbook. We may not get through the entire chapter, and the instructor may skip certain chapter sections. In this case, the student is not responsible for reading these materials, nor will the student be tested on these materials. This will be clarified during lecture as we move through the semester.
6. There will be XX lecture exams (including the final exam) and XX lecture quizzes during the semester.
7. For exams and quizzes, all phones or laptops must be out of site. No hats are allowed to be worn. Water bottles and coffee cups must be put on the floor, or in backpacks.
8. **Cell phones are not to be used during lecture.** Taking notes on laptops is acceptable, if not disruptive.
9. In the event of school cancellation on the scheduled exam/quiz date, the test will be given on the next regularly scheduled lecture session.

### Absences, Make-up Tests, and Grades

1. Make-up work is **only** allowed if the student has an approved and documented excused absence. It is the student's responsibility to notify the instructor of planned absences prior to absence date. **Students will be given 1 day following an unplanned/unexcused absence to contact the instructor to discuss the situation, otherwise the possibility of a make-up will be forfeited.** If absence is approved, the instructor will arrange a make-up date and time with the student outside of class time.
  - a. Excused absences include:
    - ⇒ Medical hospitalization or emergency
    - ⇒ Funeral
    - ⇒ MSUN approved sport and academic events
  - b. Unexcused absences include:

- ⇒ Lack of a functional computer and/or Wi-Fi access
- ⇒ Brightspace malfunctions that are not legitimate.
- ⇒ Not communicating with the instructor in a timely fashion.
- ⇒ Work schedules or vacation plans.
- ⇒ Sleeping in and/or not being prepared (or on time) for class (exams and quizzes).

c. Students **MUST** return to the classroom, in-person after Thanksgiving break. There will be no online option. Failure to complete the remaining portion of the course may result in a failing grade for the entire course.

2. Students are responsible for participating in all class exercises, as well as completing all quizzes and exams on the scheduled dates, during the scheduled times.
3. *Significant Figure Rule:* Grades will be updated on the course Brightspace as frequently as possible. At the end of the semester, **ONLY** grades sitting at 0.5-0.9% will be bumped. For example: 70.5-70.9% will be rounded to a 71%. Grades at 70.0-70.4% will remain, and not be bumped.

### **Student Responsibilities**

1. Attend lectures to complete all quizzes and exams during the scheduled dates.
2. Invest a minimum of 3 hours of studying materials outside of class.
3. Read the textbook and study the lecture slides posted on Brightspace, as well as completing the textbook sample questions to be appropriately prepared for quizzes and exams.
4. Respect other students by refraining from disruptive behavior during lectures and lab sessions. A disruptive student will be removed from the class and forfeit any points for that day.

### **Academic Integrity**

Academic misconduct including, but not limited to cheating, plagiarism, multiple submissions, or facilitating others' misconduct will not be tolerated. Evidence of cheating or plagiarism will result in a zero (0) score on the assigned work, and the student(s) will be referred to the Dean of Students office for disciplinary action. Please make sure that the work you submit is your own work! More information regarding academic misconduct can be found here:

<https://www.msun.edu/admin/policies/600/601-2.aspx>.

### **Accessibility Statement**

As directed by Section 504 of the Rehabilitation Act and the Americans with Disability Act (ADA), any students with physical or learning disabilities have access to a variety of services at MSU-Northern. In order to access these services, students are encouraged to meet with the Accessibility Resource Coordinator, Johnna Antonich. During the meeting, the student will complete an application, provide documentation of their disability (an IEP from high school, any Veteran or DV, and/or clinical documentation from a licensed professional), and complete accommodations request forms for their courses.

*Johnna Antonich, Coordinator of Accessibility Resources  
Cowan Hall 213C, 406-265-3533, [johnna.antonich@msun.edu](mailto:johnna.antonich@msun.edu)*



**Veterans Statement**

Veterans, Drilling Guard/Reserve Members, and active-duty military personnel with special circumstances (e.g., upcoming deployments, drill requirements, disabilities) are welcome and encouraged to communicate these, in advance, if possible, to the instructor. The MSU-Northern Office of Veteran Services is committed to serving all the needs of our veterans and assisting them during their transition from military life to that of a student. If you are a student veteran or veteran dependent and need any assistance with your transition, please contact Katelyn Springer, the coordinator of Veteran Services at MSU-Northern.

*Katelyn Springer, Program Coordinator, Cowan Hall 220, 406-265-4190*

*katelyn.springer@msun.edu*

**Tutoring Central**

Tutoring Central offers professional and peer tutors in a wide range of disciplines, all approved by MSUN faculty. To request tutoring, please visit [www.msun.edu/tutoring/index.aspx](http://www.msun.edu/tutoring/index.aspx) to schedule a tutoring appointment or e-mail [tutoring@msun.edu](mailto:tutoring@msun.edu) and you will be placed with a tutor who specializes in your requested subject area if one is available.

**Brightspace Technical Support**

This course uses the Brightspace Learning Management System for course content, communication, and grading. Email [brightspace@msun.edu](mailto:brightspace@msun.edu) or contact Jason Geer or Brittany Garden in the Office of Teaching & Learning Excellence for Brightspace support.

*Jason Geer*

*Cowan Hall 104, 265-3767*

*jason.geer@msun.edu*

*Brittany Garden*

*Cowan Hall 104, 265-3701*

*brittany.garden@msun.edu*

**Course Grading**

***Lecture Grades***

XX - Lecture Exams (100 points each)                      XX points

XX - Lecture Quizzes (20 points each)                      XX points

Lab Points (total)    XX points

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**Total Points for Course**

**XX points**

***Grading Scale***

A	93% - 100%	B-	80% - 82%	D+	67% - 69%
A-	90% - 92%	C+	77% - 79%	D	63% - 66%
B+	87% - 89%	C	73% - 76%	D-	60% - 62%
B	83% - 86%	C-	70% - 72%	F	0 - 59%

**Tentative Lecture Schedule**

**UNIT 1:** Proteins & Techniques

**UNIT 2:** The Plasma Membrane

**UNIT 3:** Protein Sorting and Vesicular Transport

**UNIT 4:** The Cytoskeleton & Cell Adhesion

**UNIT 5:** Cell Signaling

**WEEK 6:** Cell Signaling Mechanisms

**UNIT 7:** Cellular Mechanisms of Disease