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# Calculus II

MAT 206 – Wesleyan College

Syllabus

Summer 2022, July 18 - August 19

## Professor Contact Information

**Professor:** TBA

**Office Hours:**by appointment

**Contact Information:** TBA

**Text/ISBN:** M. Weir and J. Hass, Thoma' *Calculus: Early Transcendentals*, 12th edition, Addison-Wesley, (Pearson,)Reading, MA. ISBN: 978-0-321-58876-0

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## Policies and Procedures

### Course Goals

Techniques of integration, applications of integration, sequences and series, power series and Taylor series, parametric equations and polar coordinates.

### Prerequisites

MAT 205 Calculus I or equivalent

### Credit Hours

3

### Participation and Grading

Your grade in this course will be determined by your performance in the following categories:

| Assignments  | Percentage  |
|--------------|-------------|
| Quizzes      | 15 %        |
| Homework     | 25 %        |
| Midterm Exam | 30 %        |
| Final Exam   | 30%         |
| <b>Total</b> | <b>100%</b> |



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### **Grading Scale:**

The grading scale in the class will be as follows:

A=90-100%

B=80-89%

C=70-79%

D=60-69%

F=59% And Below

You may track your running point total throughout the term via our course site. Please be aware, however, that the course grade you see in the site will reflect only assignments and activities you have already completed and that your professor has graded.

### **Academic Integrity**

Wesleyan's College expects student to show integrity in all of their work. Cheating, plagiarism, unauthorized collaboration, inventing or falsifying information, turning in work for more than one class without authorization, or helping someone else are all violations of the Honor Code and are not tolerated. Any of these forms of cheating will not be tolerated and will be grounds for a grade of zero on the exam or assignment and a grade of F for the course, in addition to any penalties imposed by the Provost.

### **Potential Changes to Course Schedule**

The following week-to-week schedule is a general plan for the course. Deviations may be necessary and will be announced in advance via announcement and/or e-mail. Students should check their course site announcements and emails at least once every twenty-four hours throughout the term to watch for updates regarding this course.

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## **Course Schedule**

### **Week 1**

Indeterminate forms and L'Hopital Rule  
Review of Basic Integration  
Review of substitution  
Inverse Trigonometric Functions: derivatives  
Inverse Trigonometric Functions: integration  
Integration by parts  
Trigonometric Integrals  
Trigonometric Substitution

### **Week 2**

Partial Fractions  
Numerical Integration



Improper Integrals  
Area Between Curves  
Volumes of Rotation: Disk Method and Shell Method  
Arc Length  
Work

### **Week 3**

Center of Mass  
Sequences  
Series and Convergence  
Integral Test and p-Series  
Comparison Test of Series

### **Week 4**

Alternating Series  
Ratio Test  
Power Series  
Representation of Functions by Power Series  
Taylor and Maclaurin Series  
Plane Curves and Parametric Equations

### **Week 5**

Parametric Equations and Calculus  
Polar Coordinates and Graphs  
Area and Arc Length in Polar Coordinates

### **Civility in the Academic Community**

Students, faculty, and staff are expected to treat one another with respect in all interactions both during class meetings and on the Moodle course site. Rude, disruptive and/or disrespectful behaviors as determined by a faculty member interfere with other students' rights and with the professor's ability to teach. Therefore, any student exhibiting unacceptable behaviors during a class meeting or Moodle collaborative activity will be asked to leave and will be counted absent for that class period or activity. Failure to cooperate with this process will result in disciplinary action that may include withdrawal from the class or dismissal from the College. Violations will be reported to the Provost.

### **Disabilities Statement**

Wesleyan College is committed to equal education, full participation and access to facilities for all students. Any student who requires reasonable academic accommodations, use of auxiliary aids or facility access for a class must first register with Disability Resources by contacting Jill Amos, Director of Disability and Advocacy Services, [jamos@wesleyancollege.edu](mailto:jamos@wesleyancollege.edu) or (478) 757-5219. If reasonable accommodations are established, students should request Accommodation Letters from Disability



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Resources then schedule an appointment to meet with the professor to determine how the accommodations will be implemented for each class as early in the semester as possible. Accommodations require advance notice to implement and will not be retroactively administered for the semester. Accommodations that decrease the integrity of a course will not be approved.

### **Privacy in Teaching & Learning Spaces**

In order to promote an environment in which ideas may be freely expressed, the interior offices; in-person and virtual classrooms; and Moodle course sites at Wesleyan are private spaces. The unauthorized creation of photographic images, audio recordings, or video recordings of students or faculty in these spaces is considered to be disruptive behavior which may result in a student's removal from class according to the professor's discretion. The distribution of unauthorized images or recordings, or of class meeting recordings shared by a professor for instructional purposes, without the express written permission of the College is strictly prohibited and is subject to disciplinary action by the Provost of the College.