

Course Calendar

MA 16100 - FALL 2022

| Week | Day | Class Activities | Outside of Class Activities |
|----------|--------------------|---|---|
| 1 | MON 8/22 | Lesson 0 What should you know about this course? | Reading Sec 1.1: Review of Functions Sec 1.2: Representing Functions |
| | TUE 8/23 | Recitation No Quiz | |
| | WED 8/24 | Lesson 1 How do you represent growth and decay? | Reading Sec 1.3: Inverse, Exponential, and Logarithmic Functions |
| | THU 8/25 | Recitation Quiz 0 (Syllabus Quiz) | Homework HW0 (Lesson 0) HW1 (Lesson 1) |
| | FRI 8/26 | Lesson 2 What are the points on the unit circle? | Reading Sec 1.4: Trigonometric Functions and Their Inverses |
| 2 | MON 8/29 | Lesson 3 What happens as you get infinitesimally close? | Reading Sec 2.1: The Idea of Limits Sec 2.2: Definition of Limits |
| | TUE 8/30 | Recitation Quiz 1 (Lessons 0-1) | Homework HW2 (Lesson 2) HW3 (Lesson 3) |
| | WED 8/31 | Lesson 4 How do you compute a limit? | Reading Sec 2.3: Techniques for Computing Limits |
| | THU 9/1 | Recitation Quiz 2 (Lessons 2-3) | Homework HW4 (Lesson 4) |
| | FRI 9/2 | Lesson 5 What happens if a limit approaches infinity? | Reading Sec 2.4: Infinite Limits *Last day to cancel without it appearing on your record |

| | | | |
|----------|---------------------------|--|--|
| 3 | MON 9/5 | Labor Day Holiday No Class | |
| | TUE 9/6 | Recitation Quiz 3 (Lesson 4) | Homework HW5 (Lesson 5) |
| | WED 9/7 | Lesson 6 What happens in the limit as x goes to infinity? | Reading Sec 2.5: Limits at Infinity |
| | THU 9/8 | Recitation Quiz 4 (Lesson 5) | Homework HW6 (Lesson 6) |
| | FRI 9/9 | Lesson 7 What does it mean for a function to be continuous? | Reading Sec 2.6: Continuity |
| 4 | MON 9/12 | Lesson 8 How can we measure the steepness of a curve? | Reading Sec 3.1: introducing the Derivative |
| | TUE 9/13 | Recitation Quiz 5 (Lessons 6) | Homework HW7 (Lesson 7) HW8 (Lesson 8) |
| | WED 9/14 | Lesson 9 The derivative is also a function | Reading Sec 3.2: The Derivative as a Function |
| | THU 9/15 | Recitation Quiz 6 (Lessons 7-8) | Homework HW9 (Lesson 9) |
| | FRI 9/16 | Lesson 10 How do you compute the derivative? | Reading Sec 3.3: Rules of Differentiation |
| 5 | MON 9/19 | Review How to prepare for Exam 1? | *Last day to withdraw with a W with instructor and advisor signature |
| | TUE 9/20 | Recitation Exam 1 Review (No Quiz) | Exam 1 (covers Lessons 0-10) 6:30-7:30pm in ELLT |
| | WED 9/21 | Lesson 11 How do you compute the derivative of a product of functions? | Reading Sec 3.4: The Product and Quotient Rules |
| | THU 9/22 | Recitation Quiz 7 (Lesson 9) | Homework HW10 (Lesson 10) HW11 (Lesson 11) |
| | FRI 9/23 | Lesson 12 How do you compute the derivative of a trigonometric function? | Reading Sec 3.5: Derivatives of Trigonometric Functions |

| | | | |
|----------|----------------------------|--|--|
| 6 | MON 9/26 | Lesson 13 How do you compute the derivative of a composite function? | Reading Sec 3.6: Derivatives as Rates of Change Sec 3.7: Chain Rule |
| | TUE 9/27 | Recitation Quiz 8 (Lessons 10-11) | Homework HW12 (Lesson 12) HW13 (Lesson 13) |
| | WED 9/28 | Lesson 14 More applications of the Chain Rule. | Reading Sec 3.7: Chain Rule |
| | THU 9/29 | Recitation Quiz 9 (Lessons 12-13) | Homework HW14 (Lesson 14) |
| | FRI 9/30 | Lesson 15 How do you compute derivatives of implicit functions? | Reading Sec 3.8: Implicit Differentiation |
| 7 | MON 10/3 | Lesson 16 Why is e the base for the natural exponent? | Reading Sec 3.9: Derivatives of Logarithmic and Exponential Functions |
| | TUE 10/4 | Recitation Quiz 10 (Lesson 14) | Homework HW15 (Lesson 15) HW16 (Lesson 16) |
| | WED 10/5 | Lesson 17 What is the derivative of arcsine? | Reading Sec 3.10: Derivatives of Inverse Trigonometric Functions |
| | THU 10/6 | Recitation Quiz 11 (Lessons 15-16) | Homework HW17 (Lesson 17) |
| | FRI 10/7 | Lesson 18 How are rates of change related to each other? | Reading Sec 3.11: Related Rates |
| 8 | MON 10/10 | October Break No Class | |
| | TUE 10/11 | October Break No Class | |
| | WED 10/12 | Lesson 19 More examples of related rates | Reading Sec 3.11: Related Rates |
| | THU 10/13 | Recitation Quiz 12 (Lesson 17) | Homework HW18 (Lesson 18) HW19 (Lesson 19) |
| | FRI 10/14 | Lesson 20 How can you find the maximum of a function using the derivative? | Reading Sec 4.1: Maxima and Minima |
| | SAT 10/15 | | MyLab Math Scheduled Maintenance (MLM will be down 1am-9am ET) |

| | | | |
|----|---------------------|---|--|
| 9 | MON 10/17 | Review How to prepare for Exam 2? | |
| | TUE 10/18 | Recitation Exam 2 Review (No Quiz) | Exam 2 (covers Lessons 11-20) 6:30-7:30pm in ELLT |
| | WED 10/19 | Lesson 21 What can the derivative tell us about a function? | Reading Sec 4.2: Mean Value Theorem Sec 4.3: What Derivatives Tell Us |
| | THU 10/20 | Recitation Quiz 13 (Lessons 18-19) | Homework HW20 (Lesson 20) HW21 (Lesson 21) |
| | FRI 10/21 | Lesson 22 More things that derivatives tell us. | Reading Sec 4.3: What Derivatives Tell Us |
| 10 | MON 10/24 | Lesson 23 How can you graph a function using the derivative? | Reading Sec 4.4: Graphing Functions |
| | TUE 10/25 | Recitation Quiz 14 (Lesson 20-21) | Homework HW22 (Lesson 22) HW23 (Lesson 23) *Last day to withdraw from a course |
| | WED 10/26 | Lesson 24 More techniques for graphing functions | Reading Sec 4.4: Graphing Functions |
| | THU 10/27 | Recitation Quiz 15 (Lessons 22-23) | Homework HW24 (Lesson 24) |
| | FRI 10/28 | Lesson 25 How do you find an optimal solution using the derivative? | Reading Sec 4.5: Optimization Problems |
| 11 | MON 10/31 | Lesson 26 More techniques for solving optimization problems | Reading Sec 4.5: Optimization Problems |
| | TUE 11/1 | Recitation Quiz 16 (Lesson 24) | Homework HW25 (Lesson 25) HW26 (Lesson 26) |
| | WED 11/2 | Lesson 27 How can you approximate the value of a function using the derivative? | Reading Sec 4.6: Linear Approximation and Differentials |
| | THU 11/3 | Recitation Quiz 17 (Lessons 25-26) | Homework HW27 (Lesson 27) |
| | FRI 11/4 | Lesson 28 How can you evaluate indeterminate limits using the derivative? | Reading Sec 4.7: l'Hopital's Rule |

| | | | |
|-----------|---------------------|---|--|
| 12 | MON 11/7 | Lesson 29 What is the inverse of a derivative? | Reading Sec 4.9: Antiderivatives |
| | TUE 11/8 | Recitation Quiz 18 (Lesson 27) | Homework HW28 (Lesson 28) HW29 (Lesson 29) |
| | WED 11/9 | Lesson 30 How do you approximate the area under a curve? | Reading Sec 5.1: Approximating Areas Under Curves |
| | THU 11/10 | Recitation Quiz 19 (Lessons 28-29) | Homework HW30 (Lesson 30) |
| | FRI 11/11 | Lesson 31 Computing the area under a curve exactly using definite integrals | Reading Sec 5.2: Definite Integrals |
| 13 | MON 11/14 | Review How to prepare for Exam 3? | |
| | TUE 11/15 | Recitation Exam 3 Review (No Quiz) | Exam 3 (covers Lessons 21-31) 6:30-7:30pm in ELLT |
| | WED 11/16 | Lesson 32 What is the Fundamental Theorem of Calculus? | Reading Sec 5.3: Fundamental Theorem of Calculus |
| | THU 11/17 | Recitation Quiz 20 (Lesson 30) | Homework HW31 (Lesson 31) HW32 (Lesson 32) |
| | FRI 11/18 | Lesson 33 How do you work with integrals? | Reading Sec 5.4: Working with Integrals Sec 5.5 Substitution Rule |
| 14 | MON 11/21 | No Class (Class canceled due to Exam 1) | |
| | TUE 11/22 | No Class (Class canceled due to Exam 2) | |
| | WED 11/23 | Thanksgiving Break (No Class) | |
| | THU 11/24 | Thanksgiving Break (No Class) | |
| | FRI 11/25 | Thanksgiving Break (No Class) | |
| | SAT 11/26 | | MyLab Math Scheduled Maintenance (MLM will be down 1am-9am ET) |

| | | | |
|-----------|----------------------------|---|---|
| 15 | MON 11/28 | Lesson 34 How can you transform an integral into something easier to compute? | Reading Sec 5.5: Substitution Rule |
| | TUE 11/29 | Recitation Quiz 21 (Lessons 31-32) | Homework HW33 (Lesson 33) HW34 (Lesson 34) |
| | WED 11/30 | Lesson 35 How can you model exponential growth? | Reading Sec 7.2: Exponential Models |
| | THU 12/1 | Recitation Quiz 22 (Lessons 33-34) | Homework HW35 (Lesson 35) |
| | FRI 12/2 | Review How to prepare for the Final Exam? | |
| 16 | MON 12/5 | Review How to prepare for the Final Exam? | Quiet Week - The University mandates that there are no homework, quizzes, or exams this week |
| | TUE 12/6 | Recitation Final Exam Review (No Quiz) | |
| | WED 12/7 | Review How to prepare for the Final Exam? | |
| | THU 12/8 | Recitation Final Exam Review (No Quiz) | |
| | FRI 12/9 | No Class (Class canceled due to Exam 3) | |
| 17 | TUE 12/13 | Final Exam 8:00am – 10:00am Rooms: LILY 1105, PHYS 114, PHYS 223, STEW 183 (Loeb Playhouse), STEW 314. | The Final Exam will take place in multiple rooms. Please read all announcements and emails to find your exam location. |