

# MA 16010 Applied Calculus I

## Calendar (Traditional and Distance), Fall 2017

**Exam 1: Lesson 2-10 Exam 2: Lesson 11-18 Exam 3: Lesson 19-28**

| Date      | Lesson | Topics   |
|-----------|--------|--|
| 8/21 Mon  | 1      | Course Information; CCI (no calculators)   |
| 8/23 Wed  | 2      | Finding Limits Numerically; One-sided Limits   |
| 8/25 Fri  | 3      | Finding Limits Graphically   |
| 8/28 Mon  | 4      | Finding Limits Analytically  |
| 8/30 Wed  | 5      | Continuity   |
| 9/1 Fri   | 6      | The Derivative   |
| 9/4 Mon   |        | LABOR DAY (NO CLASSES)   |
| 9/6 Wed   | 7      | Basic Rules of Differentiation; Derivatives of the Sine and Cosine Functions; Derivative of the Natural Exponential Function |
| 9/8 Fri   | 8      | Instantaneous Rates of Change  |
| 9/11 Mon  | 9      | The Product Rule   |
| 9/13 Wed  | 10     | The Quotient Rule; Derivatives of the Other Trigonometric Functions  |
| 9/15 Fri  | 11     | The Chain Rule   |
| 9/18 Mon  | 12     | The Chain Rule; Derivative of the Natural Logarithmic Function   |
| 9/20 Wed  | 13     | Higher Order Derivatives   |
| 9/22 Fri  |        | REVIEW FOR EXAM 1  |
| 9/25 Mon  |        | <b>NO CLASSES</b>  |
| 9/25 Mon  |        | <b>EXAM 1 Time: 6:30-7:30pm Location: ELLT 116</b>   |
| 9/27 Wed  | 14     | Implicit Differentiation   |
| 9/29 Fri  | 15     | Related Rates  |
| 10/2 Mon  | 16     | Related Rates  |
| 10/4 Wed  | 17     | Relative Extrema and Critical Numbers  |
| 10/6 Fri  | 18     | Increasing and Decreasing Functions and the First Derivative Test  |
| 10/9 Mon  |        | <b>FALL BREAK (NO CLASSES)</b>   |
| 10/11 Wed |        | REVIEW FOR EXAM 2  |
| 10/11 Wed |        | <b>EXAM 2 Time: 8:00-9:00pm Location: ELLT 116</b>   |
| 10/13 Fri | 19     | Concavity, Inflection Points and the Second Derivative Test  |
| 10/16 Mon | 20     | Absolute Extrema on an Interval  |
| 10/18 Wed | 21     | Graphical Interpretation of Derivatives  |
| 10/20 Fri | 22     | Limits at Infinity   |
| 10/23 Mon | 23     | A Summary of Curve Sketching   |
| 10/25 Wed | 24     | Optimization   |
| 10/27 Fri | 25     | Optimization   |
| 10/30 Mon | 26     | Optimization   |
| 11/1 Wed  | 27     | Antiderivatives and Indefinite Integration   |
| 11/3 Fri  | 28     | Antiderivatives and Indefinite Integration   |

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| Date        | Lesson | Topics   |
|-------------|--------|--|
| 11/6 Mon    | 29     | Area and Riemann Sums                              |
| 11/8 Wed    | 30     | Definite Integrals                                 |
| 11/10 Fri   |        | REVIEW FOR EXAM 3                                  |
| 11/13 Mon   |        | <b>NO CLASSES</b>                                  |
| 11/13 Mon   |        | <b>EXAM 3 Time: 6:30-7:30pm Location: ELLT 116</b> |
| 11/15 Wed   | 31     | The Fundamental Theorem of Calculus                |
| 11/17 Fri   | 32     | The Fundamental Theorem of Calculus                |
| 11/20 Mon   |        | <b>NO CLASSES</b>                                  |
| 11/22 Wed   |        | <b>THANKSGIVING VACATION (NO CLASSES)</b>          |
| 11/24 Fri   |        | <b>THANKSGIVING VACATION (NO CLASSES)</b>          |
| 11/27 Mon   | 33     | Numerical Integration                              |
| 11/29 Wed   | 34     | Exponential Growth                                 |
| 12/1 Fri    | 35     | CCI (no calculators)                               |
| 12/4 Mon    | 36     | Exponential Decay                                  |
| 12/6 Wed    |        | REVIEW FOR FINAL EXAM                              |
| 12/8 Fri    |        | REVIEW FOR FINAL EXAM                              |
| 12/11-12/16 |        | WEEK OF FINAL EXAMS                                |