

# MA 16020 Applied Calculus II – Distance Learning Course

## Calendar – Syllabus(Part I), Spring 2017

**EXAM 1: Lessons R-6, Exam 2: Lessons 7-13, Exam 3: Lessons 13-19**

**EXAM 4: Lessons 18-24, Exam 5: Lessons 25-32**

**SAME number of lessons, SAME homework assignments, SAME exams as traditional sections of the course. Just a different course structure, no class meetings other than exams, NO quizzes, must independently use video lectures in LON-CAPA, and use other learning resources. MUST BE A SELF-MOTIVATED, PROACTIVE, AND A REASONABLY STRONG MATHEMATICS STUDENT.**

| <b>Date</b>    | <b>Lesson</b> | <b>Assignment/Topics</b>  |
|----------------|---------------|---|
| 1/9 M          | R             | Review of Basic Integration                                       |
| 1/11 W         | 1             | Integration By Substitution                                       |
| 1/13 F         | 2             | Integration By Substitution                                       |
| 1/16 M         |               | <i>MARTIN LUTHER KING JR. DAY (no classes)</i>                    |
| 1/18 W         | 3             | The Natural Logarithmic Function: Integration                     |
| 1/20 F         | 4             | Integration by Parts  |
| 1/23 M         | 5             | Integration by Parts  |
| 1/25 W         | 6             | Diff. Equations: Solutions, Growth and Decay                      |
| 1/27 F         | 7             | Diff. Equations: Separation of Variables                          |
| <b>*1/30 M</b> | <b>*****</b>  | <b>EXAM 1 – Flexible options 7:30am to 4:30pm in Computer Lab</b> |
| 2/1 W          | 8             | Diff. Equations: Separation of Variables                          |
| 2/3 F          | 9             | First-Order Linear Differential Equations                         |
| 2/6 M          | 10            | First-Order Linear Differential Equations                         |
| 2/8 W          | 11            | Area of a Region Between two curves                               |
| 2/10 F         | 12            | Volume of Solids of Revolution                                    |
| 2/13 M         | 13            | Volume of Solids of Revolution                                    |
| 2/15 W         | 14            | Volume of Solids of Revolution                                    |
| 2/17 F         | 15            | Improper Integrals  |
| <b>*2/20 M</b> | <b>*****</b>  | <b>EXAM 2 – Flexible options 7:30am to 4:30pm in Computer Lab</b> |
| 2/22 W         | 16            | Geometric Series and Convergence                                  |
| 2/24 F         | 17            | Geometric Series and Convergence                                  |
| 2/27 M         | 18            | Functions of Several Variables Intro                              |
| 3/1 W          | 19            | Partial Derivatives   |
| 3/3 F          | 20            | Partial Derivatives   |
| <b>*3/6 M</b>  | <b>*****</b>  | <b>EXAM 3 – Flexible options 7:30am to 4:30pm in Computer Lab</b> |
| 3/8 W          | 21            | Differentials of Multivariable Functions                          |
| 3/10 F         | 22            | Chain Rule, Functions of Several Variables                        |

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| <b>Date</b>       | <b>Lesson</b> | <b>Assignment/Topics</b>  |
|-------------------|---------------|---|
| 3/13 M            |               | <i>SPRING BREAK VACATION (no classes)</i>                         |
| 3/15 W            |               | <i>SPRING BREAK VACATION (no classes)</i>                         |
| 3/17 F            |               | <i>SPRING BREAK VACATION (no classes)</i>                         |
| 3/20 M            | 23            | Extrema of Functions of Two Variables                             |
| 3/22 W            | 24            | Extrema of Functions of Two Variables                             |
| 3/24 F            | 25            | LaGrange Multipliers - Constrained Min/Max                        |
| <b>3/27 M</b>     | <b>*****</b>  | <b>EXAM 4 – Flexible options 7:30am to 4:30pm in Computer Lab</b> |
| 3/29 W            | 26            | LaGrange Multipliers - Constrained Min/Max                        |
| 3/31 F            | 27            | Double Integrals, Volume, Applications                            |
| 4/3 M             | 28            | Double Integrals, Volume, Applications                            |
| 4/5 W             | 29            | Double Integrals, Volume, Applications                            |
| 4/7 F             | 30            | Systems of Equations, Matrices, Gaussian Elimination              |
| 4/10 W            | 31            | Gauss-Jordan Elimination  |
| 4/12 W            | 32            | Matrix Operations   |
| 4/14 F            | 33            | Inverses and Determinants of Matrices                             |
| <b>4/17 M</b>     | <b>*****</b>  | <b>EXAM 5 – Flexible options 7:30am to 4:30pm in Computer Lab</b> |
| 4/19 W            | 34            | Inverses and Determinants of Matrices                             |
| 4/21 F            | 35            | Eigenvalues and Eigenvectors                                      |
| 4/24 M            | 36            | Eigenvalues and Eigenvectors                                      |
| 4/26 W            |               | REVIEW FOR FINAL EXAM   |
| 4/28 F            |               | REVIEW FOR FINAL EXAM   |
| <b>5/1 to 5/6</b> |               | <b>WEEK OF FINAL EXAMS</b>  |

**\*\*SPECIAL NOTE:** The date and time of the final exam will be announced during the semester. **THE SEMESTER DOES NOT END UNTIL SATURDAY, MAY 6 AT 5:00 PM.** INDIVIDUALS WANTING TO LEAVE CAMPUS EARLY WILL NOT BE GRANTED EARLY FINAL EXAMS TO ACCOMMODATE TRAVEL PLANS.