# MA 114 Spring 2018 Schedule

| Unit I: Techniques of Integration | | | | | | |
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| **Day** | **Date** | **Reading** | **Topic** | **Quizzes** | **Webwork Due** | **Webwork Topic** |
| W | 22-Aug | 7.1 | Integration by parts | | | |
| R | 23-Aug | | Worksheet 01 - Integration by Parts | | | |
| F | 24-Aug | 7.2 | Trig Integrals | | | |
| M | 27-Aug | 7.3 | Trig Substitution | | A1 at 11:58PM | Integration by Parts |
| T | 28-Aug | | Worksheet 02 - Special Trigonometric Integrals | Quiz 1 on Section 7.1 | | |
| | 28-Aug | | Last day to add a class | | | |
| W | 29-Aug | 7.4 | Partial Fractions | | | |
| R | 30-Aug | | Worksheet 03 – Trigonometric Substitution | | | |
| F | 31-Aug | 7.4 | Partial Fractions | | | |
| M | 3-Sep | | Labor Day-academic holiday | | | |
| T | 4-Sep | | Worksheet 04 - Integration by Partial Fractions | | | |
| W | 5-Sep | 7.7 | Midpoint, Trapezoid, and Simpson Rules | | A2 at 11:58 PM | Trig Integrals |
| R | 6-Sep | | Worksheet 05 – Numerical integration | Quiz 2 on Sections 7.2-7.3 | | |
| F | 7-Sep | 7.7 | Simpson's Rule, Error Estimates | | A3 at 11:58PM | Partial Fractions |
| M | 10-Sep | 7.8 | Improper Integrals | | | |
| T | 11-Sep | | Worksheet 06 – Simpson's rule and improper integrals | | | |
| W | 12-Sep | 11.1 | Sequences as functions from **N** to **R** | | A4 at 11:58PM | Numerical Integration |
| | 12-Sep | | Last day to drop without a W | | | |
| R | 13-Sep | | Worksheet 07 – Sequences | Quiz 3 on sections 7.4, 7.7 | | |
| F | 14-Sep | 11.1 | Sequences by recursion | | A5 at 11:58 PM | Simpson's Rule, Improper integrals |
| M | 17-Sep | | Review for Exam 1 | | | |
| M | 17-Sep | | **Exam I Review Session, 6:00-7:30 PM, KAS 213** | | | |
| T | 18-Sep | | Review Worksheet 08 | | | |

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| T | 18-Sep | **Exam 01, 5:00-7:00 PM** | Covers sections 7.1-7.4, 7.7, 7.8, web homeworks A1-A5 |

| Unit II: Series | | | | | | |
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| **Day** | **Date** | **Reading** | **Topic** | **Quizzes** | **Webwork Due** | **WW Topic** |
| W | 19-Sep | 11.2 | Series | | | |
| R | 20-Sep | | Worksheet 09 - Recursive sequences, series | | | |
| F | 21-Sep | 11.2 | Series | | A6 at 11:58 PM | Sequences |
| M | 24-Sep | 11.3 | Integral Test | | B1 at 11:58 PM | Recursive Sequences |
| T | 25-Sep | | Worksheet 10 - Series, Integral Test | | | |
| W | 26-Sep | 11.4 | Comparison and Limit Comparison | | B2 at 11:58 PM | Series |
| R | 27-Sep | | Worksheet 11 - Comparison and Limit Comparison Tests | Quiz 4 on sections 11.1-11.2 | | |
| F | 28-Sep | 11.5 | Alternating Series | | B3 at 11:58 PM | Integral Test |
| M | 1-Oct | 11.6 | Absolute Convergence, Ratio and Root Tests | | B4 at 11:58PM | Comparison tests |
| T | 2-Oct | | Worksheet 12 - Alternating series, absolute and conditional convergence | | | |
| W | 3-Oct | 11.7 | Ratio and Root Tests, Strategies for Testing Series | | B5 at 11:58PM | Absolute and conditional convergence |
| R | 4-Oct | | Worksheet 13 - Ratio and Root tests | Quiz 5 on sections 11.3-11.5 | | |
| F | 5-Oct | 11.8 | Power Series | | B6 at 11:58PM | Ratio and root tests |
| M | 8-Oct | 11.9 | Representing functions as power series | | | |
| T | 9-Oct | | Worksheet 14 - Power series | | | |
| W | 10-Oct | 11.10 | Taylor series | | B7 at 11:58PM | Power series |
| R | 11-Oct | | Worksheet 15 - Taylor Series | Quiz 6 on 11.7-11.8 | | |
| F | 12-Oct | | Review for Exam 2 | | B8 at 11:58PM | Taylor and McLaurin Series |
| M | 15-Oct | | Review for Exam 2 | | | |
| M | 15-Oct | | **Exam 2 Review Session, 6:00-7:30 PM, KAS 213** | | | |
| T | 16-Oct | | Review Worksheet 16 | | | |

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| T | 16-Oct | **Exam 2, 5:00-7:00 PM** | Covers sections 11.1-11.10, web homeworks A6, B1-B8 | | | |

| Unit III: Applications of Integration, Calculus with Parametric and Polar Coordinates | | | | | | |
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| **Day** | **Date** | **Reading** | **Topic** | **Quizzes** | **Webwork Due** | **WW Topic** |
| W | 17-Oct | 6.5 | Average value of a function | | | |
| R | 18-Oct | | Worksheet 17 - Average Value of a Function | | | |
| F | 19-Oct | 6.2 | Volumes with known cross section | | C1 at 11:58 PM | Average Values |
| M | 22-Oct | 6.3 | Volumes of revolution - disks and washer | | | |
| T | 23-Oct | | Worksheet 18 - Volumes I | | | |
| W | 24-Oct | 6.3 | Volumes of revolution by shells | | C2 at 11:58PM | Volumes I |
| R | 25-Oct | | Worksheet 19 - Volumes II | Quiz 7 on sections 6.2 and 6.5 | | |
| F | 26-Oct | 8.1 | Arc length | | C3 at 11:58PM | Volumes II |
| M | 29-Oct | 8.2 | Surface area | | | |
| T | 30-Oct | | Worksheet 20 - Arc length and surface area | | | |
| W | 31-Oct | 8.3 | Centers of mass; moments | | C4 at 11:58PM | Arc length and surface area |
| R | 1-Nov | | Worksheet 21 - Centers of mass and moments | Quiz 8 on sections 6.3, 8.1, 8.2 | | |
| F | 2-Nov | 10.1 | Parametric equations | | C5 at 11:58PM | Centers of mass and moments |
| F | 2-Nov | | Last day to withdraw | | | |
| M | 5-Nov | 10.2 | Calculus with parametric equations | | | |
| T | 6-Nov | | Worksheet 22 - Parametric equations | | | |
| W | 7-Nov | 10.3 | Polar coordinates | | C6 at 11:58PM | Parametric equations |
| R | 8-Nov | | Worksheet 23 - Polar coordinates | Quiz 9 on sections 8.3, 10.1 | | |
| F | 9-Nov | | Review | | C7 at 11:58PM | Calculus with parametric equations |
| M | 12-Nov | | Review | | | |
| M | 12-Nov | | **Exam 3 Review Session, 6:00-7:30 PM, KAS 213** | | | |
| T | 13-Nov | | Review Worksheet 24 | | | |

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| T | 13-Nov | **Exam 03, 5:00-7:00 PM** | Covers sections 6.2, 6.3, 6.5, 8.1-8.3, 10.1-10.2 (omit 10.3), web homeworks C1-C7 |

| Unit IV: Conic Sections, Differential Equations | | | | | | |
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| **Day** | **Date** | **Reading** | **Topic** | **Quizzes** | **Webwork Due** | **WW Topic** |
| W | 14-Nov | 10.4 | Calculus with polar coordinates (arc length and area) | | | |
| R | 15-Nov | | Worksheet 25 - Calculus with polar coordinates | | | |
| F | 16-Nov | 10.5 | Conic sections | | D1 at 11:58PM | Polar coordinates |
| M | 19-Nov | 10.5 | Conic sections | | D2 at 11:58 PM | Calculus with polar coordinates |
| T | 20-Nov | | Worksheet 26 - Conic sections | | | |
| | 21-24 Nov | | Thanksgiving holiday-academic holiday | | | |
| M | 26-Nov | 9.1 | Modeling with differential equations | | D3 at 11:58PM | Conic sections |
| T | 27-Nov | | Worksheet 27 - Differential equations | Quiz 10 on 10.4, 10.5 | | |
| W | 28-Nov | 9.2 | Direction fields | | D4 at 11:58PM | Differential equations |
| | 29-Nov | | | | | |
| F | 30-Nov | 9.3 | Separable equations | | | |
| M | 3-Dec | | Review | | | |
| T | 4-Dec | | Worksheet 28 - Direction Fields, separable equations | | | |
| W | 5-Dec | | Review for Final | | D5 at 11:58PM | Direction Fields |
| R | 6-Dec | | Review Worksheet 29 | | | |
| F | 7-Dec | | Review for Final | | D6 at 11:58PM | Separable equations |
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| W | 12-Dec | | **Final review session, 3.30-5.00 pm in CB 106** | | | |
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| R | 13-Dec | **Final exam, 6-8pm** | Covers 6.2, 6.3, 6.5, 7.1-7.4, 7.7, 7.8, 8.1-8.3, 9.1-9.3, 10.1-10.5, 11.1-11.10 and all web homeworks including D1-D6 | | | |