## Math 2B suggested syllabus (based on 29 lectures)

Text: Stewart, Calculus: Early Transcendentals or Single Variable Calculus: Early transcendentals, 8th Edition or UCI Custom Edition, 8th Edition.

| Lecture | Section | Topic |
| :--- | :--- | :--- |
| 1 | 4.9 | Antiderivatives (review) |
| 2 | 5.1 | Areas and Distances |
| 3 | 5.2 | Definite Integral |
| 4 | 5.3 | Fundamental Theorem of Calculus |
| 5 | 5.4 | Indefinite Integrals and the Net Change Theorem |
| 6 | 5.5 | Substitution Rule |
| 7 | $6.1,6.2$ | Area between Curves, Volume |
| 8 | 6.2 | Volume |
| 9 | 6.5 | Average Value of a Function, Review |
| 10 |  | Midterm \#1 |
| 11 | 7.1 | Integration by Parts |
| 12 | 7.2 | Trigonometric Integrals |
| 13 | 7.3 | Trigonometric Substitutions |
| 14 | 7.4 | Integration by Partial Fractions |
| 15 | 7.5 | Strategy for Integration |
| 16 | 7.8 | Improper Integrals |
| 17 | 11.1 | Sequences |
| 18 |  | Review |
| 19 |  | Midterm \# 2 |
| 20 | 11.2 | Series |
| 21 | $11.3,11.4$ | Integral Test, Comparison Test |
| 22 | $11.5,11.6$ | Alternating Series Test, Absolute Convergece (start 11.6) |
| 23 | 11.6 | Ratio and Root Tests |
| 24 | 11.7 | Strategy for Testing Series |
| 25 | 11.8 | Power Series |
| 26 | 11.9 | Representations of Power Series |
| 27 | 11.10 | Taylor and Maclaurin Series |
| 28 |  | Catch-up and Review |
| 29 |  | Review for final |
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In case of a quarter with 28 lectures, skip the "Catch-up and review" day prior to the final.

