**Math 166: Honors Calculus II** **Syllabus** **Spring 1999**

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|---|---|---|
| Jan. 13 | 5.1 1st Fund Thm | #1 p.208(5.5):2–10even,11–15,21,28 |
| 14 | 5.2–5.4 Primitive fns; 2nd Fund. Thm | |
| 15 | 5.6–5.7 Int by substitution | #2 p.216(5.8):1–23 odd, A.1–A.3 |
| 18 | 5.9 Int by parts | #3 p.220(5.10):1,3,7,8,11–13('a' only) |
| 20 | 6.1–6.5 Logs | #4 p.236(6.9) 1a,2–15 |
| 21 | *Quiz 1* | |
| 22 | 6.6–6.8 Log ints and derivs | #5 p.236(6.9):16–27, A.4–A.6 |
| 25 | 6.12–6.14 Exponential fn | #6 p.248(6.17):1–12 |
| 27 | 6.15–6.16 Exp ints and derivs | #7 p.249(6.17):13–31odd,39,40 |
| 28 | *Quiz 2* | |
| 29 | 6.18 Hyperbolic fns | #8 p.251(6.19):1–8,14,21–23, A.7–A.9 |
| Feb. 1 | 6.20–6.21 Inverse fns | #9 p.256(6.22): 12–18even,26,29–39odd |
| 3 | 6.21 Inverse trig fns | |
| 4 | *Quiz 3* | |
| 5 | 6.23 Partial fractions | #10 p.267(6.25):1–12, A.10–A.11 |
| 8 | 6.24 P.F., Trig substitutions | #11 p.267(6.25):13–24 |
| 10 | Trig subst. | #12 p.267(6.25):26,29,33,34,36,38,39 |
| 11 | *Quiz 4* | |
| 12 | 7.1–7.3 Taylor polynomials | |
| 15 | 7.3 More Taylor Polynomials | #13 p.278(7.4) 1–10 |
| 17 | Review | |
| 18 | **Exam 1** | |
| 19 | 7.5 Taylor's formula | A.12–A.14 |
| 22 | 7.7 Lagrange form of the remainder | #14 p.284(7.8) 1–3,6–9 |
| 24 | 7.6 Error estimates | |
| 25 | *Quiz 5* | |
| 26 | 7.9 $o$-notation | #15 p. 290(7.11) 1–10, A.15–A.17 |
| Mar. 1 | 7.9 $o$-notation | #16 p.291(7.11) 11–17,20,22,25,26 |
| 3 | 7.10 Indeterminate forms | |
| 4 | *Quiz 6* | |
| 5 | 7.11 L'Hôpital's Rule | #17 p.295(7.13) 1–13, A.18–A.19 |
| 8–12 | **Midsemester Break** | |
| 15 | 7.14 $\pm\infty$, L'Hôpital Extensions | #18 p.303(7.17) 1–10 |
| 17 | 7.15–7.16 Infinite limits | #19 p.303(7.17) 11–20 |
| 18 | *Quiz 7* | |
| 19 | 7.16 Infinite limits | A.20–A.21 |
| 22 | 10.1–10.2 Sequences | #20 p.382(10.4) 1–10 |
| 24 | 10.3 Monotonic sequences | #21 p.382(10.4) 11-18,33,35, A.22–A.24 |
| 25 | *Quiz 8* | |
| 26 | 10.5–10.6 Infinite series | #22 p.391(10.9) 1–10 |
| 29 | 10.7–10.8 Telescoping & geometric series | #23 p.391(10.9) 11–13,15–18,20,22,23 |
| 31 | 10.11–10.12 Convergence tests | |
| Apr. 1 | 10.12–10.13 Integral test | #24 p.398(10.14) 1–10 |
| 2 | *Easter Holiday* | |
| 5 | *Easter Holiday* | |
| 7 | 10.13, Review | #25 p.399(10.14) 11–19 |
| 8 | **Exam II** | |
| 9 | 10.15 Root and Ratio test | #26 p.402(10.16) 1–14, A.25–A.27 |
| 12 | 10.17 Alternating series | |
| 14 | 10.18 Absolute & conditional convergence | #27 p.409(10.20) 1–3,5–18,22,24 |
| 15 | *Quiz 9* | |
| 16 | Abel's Theorem, 10.21 Rearrangement of series | A.28–A.31 |
| 19 | 10.23 Improper Integrals | #28 p.420(10.24) 1–6,8,10 |
| 21 | 11.6 Power series; radius | #29 p.430(11.7) 1–12 |
| 22 | *Quiz 10* | |
| 23 | 11.8 Properties of power series | #30 p.438(11.13) 1–10, A.32–A.33 |
| 26 | 11.9 Taylor's series | |
| 28 | Review | |
| 30 | *Study Day* | |
| May 6 | Thursday, **Final Exam** 8:00 A.M. | |