

MATH 150: CALCULUS WITH ANALYTIC GEOMETRY I  
SEMESTER: SUMMER SESSION 1, 2017  
INSTRUCTOR: CHRISTOPHER NATOLI

## 1 Details

Classroom: 204 Hunter West  
Class time: 5:45–7:50PM Monday through Thursday  
Office hours: TBD  
Textbook: *Essential Calculus* by James Stewart, second edition  
Email: [chrisnatoli@gmail.com](mailto:chrisnatoli@gmail.com) (*do not email me at any other address*)  
Website: <https://chrisnatoli.github.io>

## 2 Tentative lecture schedule

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| 1. §1.3 The Limit of a Function                  | 14. §3.2 The Mean Value Theorem and          |
| 2. §1.4 Calculating Limits                       | §3.3 Derivatives and the Shapes of Graphs    |
| 3. §1.5 Continuity                               | 15. §3.4 Curve Sketching                     |
| 4. §1.6 Limits involving Infinity                | 16. §3.5 Optimization Problems               |
| 5. §2.1 Derivatives and Rates of Change          | 17. §3.7 Antiderivatives                     |
| 6. §2.2 The Derivative as a Function             | 18. Exam II                                  |
| 7. §2.3 Basic Differentiation Formulas and       | 19. §4.1 Areas and Distances                 |
| §2.4 The Product and Quotient Rules              | 20. §4.2 The Definite Integral               |
| 8. §2.5 The Chain Rule                           | 21. §4.3 Evaluating Definite Integrals       |
| 9. §2.6 Implicate Differentiation                | 22. §4.4 The Fundamental Theorem of Calculus |
| 10. §2.7 Related Rates                           | 23. §4.5 The Substitution Rule               |
| 11. Exam I                                       | 24. §7.1 Areas Between Curves                |
| 12. §2.8 Linear Approximations and Differentials | 25. §7.2 Volumes                             |
| 13. §3.1 Maximum and Minimum Values              | 26. §7.3 Volumes by Cylindrical Shells       |
|  | 27. Exam III                                 |

## 3 Homework policy

Problem sets will be assigned roughly twice a week, on Mondays and Wednesdays. Those assigned on a Monday will be due the following Thursday at 11:59PM, and those assigned on a Wednesday will be due the following Monday at 11:59PM. (The first homework will be assigned on Monday, June 5, and will be due Thursday, June 8.) All problem sets will be conducted through an online service called WebAssign—more details about that to come. Late homework will not be accepted, but the lowest problem set score will be dropped from your grade.

## **4 Exams**

There will be three exams and one final exam. The first three exams will cover the material since the last exam, but the final exam will be cumulative. Calculators and phones are not allowed on any exams. The dates of each exam are yet to be decided.

## **5 Grading**

10% problem sets, 20% for each of the first three exams, and 30% for the final exam.