MAT257 Notes

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This document is a collection of notes for the course MAT257: Analysis II, as taught by Professor Edward Bierstone in 2018 at the University of Toronto. The notes are a combination of notes I made in class (which can be found in their original form in the notes folder in this repository) and scans of handwritten notes which Professor Bierstone has generously given me the permission to use.

1 Introduction

TODO: this

2 Differentiation

TODO: this

3 Integration

3.1 The (Riemann) Integral Over a Rectangle

TODO: this

3.2 Integrals Over More General Bounded Sets

TODO: this

3.3 Fubini's Theorem

TODO: this

3.4 Partitions of Unity

TODO: this

3.5 Change of Variables

TODO: this

3.6 Parametrically Defined Curves

TODO: this

4 Manifolds

TODO: this

5 Integration on Manifolds

TODO: this