

MATH597  
Analysis II

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## Abstract

Notice that since in this course, the cross-referencing between theorems, lemmas, and propositions are quite complex and hard to keep track of, hence in this note, whenever you see a **!** over  $=$ , like  $\stackrel{!}{=}$ , then that **!** is *clickable*! It will direct you to the corresponding theorem, lemma, or proposition we're using to deduce that particular equality.

Notice that there are some proofs is **intended** left as assignments, and for completeness, I put them in [Appendix A](#), use it in your **own risks**! You'll lose the chance to practice and really understand the materials.

Additionally, we'll use Folland[[folland1999real](#)] as our main text, while using Tao[[tao2013introduction](#)] and Axler[[axler2019measure](#)] as supplementary references.

This course is taken in Winter 2022, and the date on the covering page is the last updated time.

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# Chapter 1

## Lecture 1

05 Jan. 11:00

# Appendix

## Appendix A

### Additional Proofs