

UPDATED GENERAL INFORMATION — FEBRUARY 11, 2014

Rescheduling of the first two quizzes

Due to the rescheduling of the in-class midterm examinations, there will be a corresponding rescheduling of quizzes to **Tuesday, February 18,** and **Tuesday, March 11.** The coverage of the second quiz will be announced by the end of this week, but it will include the remaining portions of Chapter 6 along with all of Chapter 7 and probably all of Chapter 8 in Sutherland (together with supporting materials in the course directory).

Modifications to math145Anotes.pdf*

The files in the course directory with $*$ = 06 and 0708 have been modified slightly, with some clarifications, minor corrections, and additional remarks. In `math145Anotes06.pdf` page 6.12 has been expanded and clarified with an additional page 6.12A to fill a gap in the proof that if X is a metric space and $A \subset X$, then $A \cup L(A)$ is a closed subset of X . In the file `math145Anotes0708.pdf` a minor typographical error on page page 8.2 has been corrected (the topology on the empty set \emptyset is given by $\{\emptyset\}$ and not \emptyset), on page 7.4 there is a marginal note about considering an intersection of a family of subsets $\mathbf{F} = \{A_\alpha\}$ only when \mathbf{F} is nonempty; as noted on pages 18–19 of Halmos, *Naive Set Theory*, if the intersection of an empty family would be defined, then it would not be empty as one might expect, but instead it turns out to be everything (see also page 44 of the directory file `set-theory-notes.pdf`).

Assignments for Chapters 7 – 10

Working the exercises listed below is **strongly recommended**.

The following exercises are taken from Sutherland:

- Chapter 7: 7.1 – 7.2, 7.6
- Chapter 8: 8.3, 8.4, 8.6
- Chapter 9: 9.11, 9.14
- Chapter 10: 10.1, 10.6, 10.10 – 10.11, 10.17 – 10.18 (in the latter, the map $f \times g$ should go from $X \times X'$ to $Y \times Y'$ and not from $X \times Y$ to $X' \times Y'$)

The following references are to the file `exercises03w14.pdf` in the course directory.

- Additional exercise for Chapter 7: 2
- Additional exercises for Chapter 8: 2 – 4

The following references are to the file `exercises04w14.pdf` in the course directory.

- Additional exercise for Chapter 9: 2
- Additional exercises for Chapter 10: 1 – 3

Reading assignments from solutions to exercises

Two additional strong recommendations are

- (1) to read through the solutions to Additional Exercise 1 for Chapter 7 and Additional Exercise 5 for Chapter 8 in `exercises03w14.pdf`, both of which are worked out in the file `solutions03w14.pdf`.
- (2) to read through the solutions to Exercises 9.5, 9.8, 10.12 and 10.16 from Sutherland, Additional Exercise 3 for Chapter 9 and Additional Exercise 4 for Chapter 10 in `exercises04w14.pdf`, all of which are worked out in the file `solutions04w14.pdf`.