

# Extra Material Project

## 1 Purpose:

This project provides you with experience:

- reading mathematical writing on a new topic (SLO #1, 4, & 5),
- communicating complex topics to a group, (SLO #3),
- researching a topic (SLO #2), and
- conveying technical ideas through writing (SLO #3)

## 2 Summary:

This is a project where you will need to:

1. organize into groups of two to three people,
2. review and agree on an idea from a chapter below to present to the class,
3. guide the class introducing or investigating one topic from the chapter, &
4. and turn in a two page discussion/investigation about the topic.

### 2.1 Extra Material Chapters:

Your group can choose a chapter from below or investigate a separate topic if approved by May 9.

- §6 Products
- §7 Flat Manifolds
- §8 Orientability vs 2-sided
- §10 Hyperbolic space
- §14 Hypersphere
- §15 Hyperspace
- §19 Universe

### 2.2 Presentations:

Each group has 30 minutes to guide the class through one topic from the chapter in depth. You are welcome and encouraged to use the text, multimedia, manipulatives, and other materials to help guide your peers through their investigation. Each group must make effective use of the entire 30 minutes. By the end of the presentation the class should feel generally comfortable with the new material. Do be aware, that your peers will be evaluating you and will determine 25% of your grade on this project (see rubric below).

## 2.3 Written Discussion or Investigation

This assignment requires both summary and synthesis. A summary is a recap of the important information of the source, but a synthesis is a re-organization, or reshuffling of that information. It might give a new interpretation of the material or combine new with old interpretations. Or it might trace the intellectual progression of the field, including major debates. While the main focus of an academic research paper is to support your own argument, the focus of this assignment is to summarize and synthesize the argument and ideas from the section you are presenting. I will not want your opinion and you may not simply copy (plagiarize) sections of the textbook.

This assignment will be between one and two pages, double-spaced, and group-written. The paper's focus will be on the material that the group is presenting to the class. Do be aware, that your group members will be evaluating you and will determine 25% of your grade on this project (see rubric below).

## 3 Time Table:

Week	Date	Event:
7	Feb 21 Thur	Sign up for patterns/groups
8	Feb 26 Tue	15 minutes of class time to prep
9	Mar 5 Tue	peer draft exchange
10	Mar 16 & 18.	Presentations
11	Mar 21 Thur	Papers Due

## 4 Evaluation

The rubric for the project is provided, but do take note that 25% of your marks will come from your peers in the class and 25% will come from your colleagues in your groups.