

## Project Rubrics

Each project will be worth a total of 100 points. The breakdowns and criteria are listed below.

For each project, please provide a list of citations somewhere with your project, if you use content not included in the textbook or from lecture.

### Project 1 (Lesson Plan)

The lesson plan will be graded on detail, clarity, organization, and correctness.

**Detail (30 pts):** This criterion is concerned with the level of detail in your lesson plan. For full credit, your lesson plan should be detailed enough to allow a second teacher to teach your class after reading your lesson plan. These details should include the necessary examples, explanations, and class activities used in your lesson.

**Clarity (20 pts):** This criterion focuses on how clear your lesson makes the topic it aims to explain. For full credit, your lesson plan needs to have its explanations, examples, and/or activities well motivated, and they should give an unambiguous explanation of the topic at hand at a level appropriate for the intended students.

**Organization (10 pts):** This criterion focuses on the organization of your plan. Can the plan itself be followed easily, or will the reader have to jump around the lesson plan to find what order topics are being explained in?

**Correctness (40 pts):** The criterion focuses on the correctness of the abstract algebra used in your write up. In the write up, are your explanations using the concepts from abstract algebra correctly? In addition, are you proving why the math behind the lesson works?

## **Project 2 (Application)**

The lesson plan will be graded on detail, clarity, organization, and correctness.

**Detail (30 pts):** This criterion is concerned with the level of detail in your explanation of the application. For full credit, your lesson plan should be detailed enough to allow the reader to give a 15-20 minutes talk about the topic at hand. The page length may vary, but 3 or 4 seems like an appropriate minimum.

**Clarity (20 pts):** This criterion focuses on how clear your project makes the topic it aims to explain. For full credit, your project needs to have its concepts fully explained and well motivated examples that the reader can follow.

**Organization (10 pts):** This criterion focuses on the organization of your project. Are the concepts arranged in a logical order? Are the examples placed appropriately throughout the project?

**Correctness (40 pts):** The criterion focuses on the correctness of the abstract algebra used in your project. Are you using the relevant abstract algebra concepts correctly? Are any included proofs correct? If you are citing a proof or are giving a less formal proof, is the outline of a proof correct?

## **Project 3 (Famous Problem/Theorem)**

The lesson plan will be graded on detail, clarity, organization, and correctness.

**Detail (30 pts):** This criterion is concerned with the level of detail in your explanation of the problem. For full credit, your paper should be detailed enough to allow the reader to give a 15-20

minutes talk about the topic at hand. The page length may vary, but 3 or 4 seems like an appropriate minimum.

**Clarity (20 pts):** This criterion focuses on how clear your project makes the problem it aims to explain. For full credit, your project needs to have its concepts fully explained and needs to explain why the problem is important.

**Organization (10 pts):** This criterion focuses on the organization of your project. Are the concepts arranged in an appropriate order?

**Correctness (40 pts):** The criterion focuses on the correctness of the abstract algebra used in your project. Are you using the relevant concepts correctly? Are any included proofs correct? If you are citing a proof or are giving a less formal proof, is your outline of the proof correct?