CISC 2210 – Introduction to Discrete Structures

An “Open Ended” Project

Feb 10, 2022 – May 10, 2022

Objective: To initiate and deliver an original and creative project related to Discrete Math.

General: The project is “open ended” and as such there will be no instructions of what to do although I will offer a few examples to illustrate the types of projects that would qualify. Submitting a project is not mandatory, however it is a great opportunity for students to boost their final grade. The project fits better those who are good in programming but everyone is welcome to try.

Disclaimer: This is an “experimental project”. Rules and procedures are flexible and may be changed during the semester.

Some examples:

• Demonstrate a concept, a proof, a solution to a puzzle, or anything else related to Discrete Math with about 5-minute animated presentation or a slide presentation.

• Animate an algorithm that is related to Discrete Math. Or, build a demo which shows how the algorithm works for instances selected by users.

• Illustrate a proof without words for any combinatorial identity or improve the presentation of existing proofs.

• Identify and demonstrate interesting patterns of sequences or of set of numbers (for example, prime numbers or powers of prime numbers).

Programming language: You may use any programming language.

Procedure and time line:

• A proposal should be submitted as soon as possible but no later than Apr 20, 2022.

• If the proposal is approved, the project and a report should be submitted by May 10, 2022.

• After the deadline, one-on-one Zoom meetings will be scheduled in which you present your project to me.

• These are firm deadlines; there will be no exceptions.

Grading: You lose nothing by trying to complete an approved project. Each completed and submitted project will earn a grade of 100. For those whose projects are outstanding the project will count as much as 15% toward the final grade. On the other hand, if a project fails to meet minimum standards the percentage could be zero.

Grading main factors:

• Correctness.

• Originality.

• Creativity.

• Project hardness and mathematical depth.

• Beauty.

Integrity: Students are expected to do this project by themselves without any external help from other people. Cheaters will be punished severely. At minimum, they will fail the project, but they may fail the whole class. In addition, students who cheat risk disciplinary measures by Brooklyn College and CUNY.