CISC 2210 – Introduction to Discrete Structures

An “Open Ended” Project

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 specific instructions of what to do although a few examples to illustrate the types of projects that would qualify will be offered. Submitting a project is not mandatory, however it is a great opportunity for students to boost their final grade.

Some examples:

• Demonstrate a concept, a proof, a solution to a puzzle, or anything else related to Discrete Math with an 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 an existing proof.

• Identify and demonstrate interesting patterns of sequences (for example, the Fibonacci sequence) or of set of numbers (for example, the 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 Nov 16, 2023.

• If the proposal is approved, the project and a report should be submitted by Nov 30, 2023.

• If required for grading, after the deadline, a meeting (face-to-face or Zoom) will be scheduled in which you present your project.

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

Grading: You lose nothing by trying to complete an approved project. Each submitted approved 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.