CISC 5825 COMPUTER ALGORITHMS

SYLLABUS

Semester :	Spring 2023
Instructor :	Dr. Tadeusz Strzemecki
Office :	Room LL 610B
Online Office hours :	M 9AM - 10AM, M 12PM - 1PM, R 12PM - 2PM, or by appointment
Textbook :	**Thomas H. Cormen et al.**, *Introduction to Algorithms, 4th edition*
Publisher / ISBN :	The MIT Press / 9780262046305
email :	ts@dsm.fordham.edu
Tel. :	212-636-6332

I. General Information

This is a one semester course which covers all basic ideas concerning the subject of computer algorithms. There are three one hour quizzes and the final examination. No make-up quizzes are given. Homeworks will be assigned on a weekly basis. Homeworks are due one week from their assignment. Under no circumstances will late homeworks be accepted. All homeworks must be submitted electronically as pdf files attached to the email sent to **ts@dsm.fordham.edu**. Homeworks not submitted according to the above specifications will be considered as not submitted.

II. Grading Policy

The final grade will be determined based on the total number of points you accumulate throughout the course. Three quizzes will contribute 30%, homeworks 20%, and the final examination 50% from the total number of 100 points. The total number of points you accumulate in the course determines the final grade. Homeworks are graded on a scale from 0 to 20. Homeworks are due at the beginning of the meeting on the due date. Further details of this policy will be explained during the first lecture.

III. Topics Included

The list of the topics covered in the class that follows may not be complete. We may cover more, depending on the pace at which we will be able to proceed. The topics to be covered include:

- Mathematical background
- Basic Data Structures
- Tree Algorithms
- Graph Algorithms
- Greedy Algorithms
- Recursive Equations
- Examples of Proofs of Correctness
- Sorting Algorithms
- Dynamic Programming
- Divide and Conquer