CSCE 2211 Term Paper Spring 2024 Guidelines

The term paper is **NOT OPTIONAL.** The paper grade represents 10% of the total course grade.

A group <u>of 1 - 4 members</u> should submit a paper on a subject of their own choice but related to the course. The paper aims at presenting a <u>literature survey of methods or algorithms</u> in the chosen topic with <u>exposure of applications as well as analysis and critique</u> of the methods.

The paper is only to present a survey of some published works on the paper topic and its applications with analysis and critique of the method(s). You are not required to do any implementations or actual data processing of your own.

Guidelines:

- The paper is intended to be a teamwork.
- The paper topic should be different from the topic of the term project.
- A group of 1 4 members is to write a paper of 3-6 pages on a subject of their own choice and to submit the paper by the deadline. A guideline for the format of the paper to be submitted is attached.
- All group members <u>must be students from the same section.</u>
- The paper group can be the same as that presenting the term project.
- Names of group members should be sent by e-mail to the course TA Eng. Mohamed Hany: mohamed.ihany@aucegypt.edu by Monday April 8, 2024. <a href="Mohamed No allowance to change the names of group members once they have been sent to Eng. Hany.
- <u>Names</u> of group members <u>must be submitted</u> in the final report with <u>no allowance to change the names from those sent before.</u>
- The final paper manuscript should be submitted on **blackboard.**
- Final date of submission of the complete paper is Thursday May 9, 2024.
- There will be NO late policy for the submission of the paper. **No submissions will be accepted after the due date.**

Academic Integrity

Students are expected to commit to the principles of academic integrity. Any plagiarism detected will result in zero grade for the project.

The team may choose to present a paper on one of the suggested topics given on the next page. The team may also choose to present a paper on a different topic. In this case, the topic should exhibit the use of Data Structures and Algorithms relevant to the course and would serve as a useful survey.

Suggested Topics for the Paper

- String Matching Algorithms
- Self-Balancing Trees and their Applications
- Minimum Cost Spanning Trees for Graphs
- Shortest Path problems in Graphs
- Social networking and Graph Algorithms
- Google Maps
- The A* Algorithm
- Cluster Analysis
- Sudoku by Backtracking
- Knight's Tour Problem
- N-Queens Problem
- The Travelling Salesman Problem
- Quantum Computing
- Rubik's Cube Algorithms
- Minimax Algorithms
- Tries

CSCE 2211 Term Paper Spring 2024 Suggested Paper Format

This is just a suggested format. You have the freedom to change or modify it in a way that suits the topic and content of the paper.

Paper Title

Authors Name/s
Course Number & Section
Department of Computer Science and Engineering, AUC

Ab	stract:
Th	is is just a suggested format. You have the freedom to change or modify it in a way that suits
the	e topic and content of the paper.
Keywords:	
	<u>Introduction</u> (Introduce the topic of the paper here)
	Motivation (Explain why this topic is interesting to you)
	<u>Topic or Problem Definition</u> (Present here a more detailed definition of the topic or problem)
(Fi	<u>Literature Survey of Methodologies or Algorithms</u> rom published work, give a survey of Methodologies or Algorithms used in treating the oblem)
	Examples / Applications (From the Literature)
(Y	Analysis and Critique of Methodologies / Algorithms our own views and from the Literature)
	Conclusions
(A <u>Re</u>	cknowledgements cknowledge other people who helped you in producing the paper) eferences ist here the references you used to produce the paper)