Title (Units): **COMP7260 Special Topics in Data Analytics (3,2,1)**

Course Aims: To learn state-of-the-art topics in data analytics.

Prerequisite: The pre-requisite depends on the specific topics covered. The pre-requisite and the selected topics will be announced before the semester starts.

Course Intended Learning Outcomes (CILOs):
Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Explain the importance of the selected topics in data analytics.
2	Describe the problems involved in the selected topics and explain the solutions to these problems.
	Professional Skill
3	Apply problem-solving and/or practical skills relevant to the selected topics.

Calendar Description: Students will learn state-of-the-art topics in data analytics. Emphasis will be placed on the current issues, methodologies and/or practice. After completing this course, students will understand the selected topics in data analytics.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1, 2, 3	The specific teaching and learning activities depend on the topics covered. These activities may include some of the following: i) students will attend lectures to learn the principles of the topics covered, ii) they will be given open-ended tutorial questions for class discussion and in-depth learning, iii) they will attend laboratory sessions to learn the practical aspects of the topics covered, iv) they will study some real-world cases which illustrate the topics covered, v) they will work on written assignments to consolidate and apply what they have learnt, vi) they will work on a term paper and/or a project which involve information gathering, self-reading, critical thinking and creativity.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Continuous Assessment	50%	1, 2, 3	Continuous assessments are designed such that students apply what they have learned to solve the problems involved in the selected topics in data analytics.
2	Examination	50%	1, 2, 3	Final examination questions are designed to assess students' understanding in the concepts and their ability in applying these concepts to solve problems.

Assessment Rubrics:

Level of Achievement	General Presentation	Reasoning, Argumentation
Excellent (A)	• Addresses questions explicitly • Presents answers clearly and logically	• Demonstrates accurate and complete understanding of the concepts involved • Provides arguments in a consistent and thorough manner • Capable of addressing in-depth and tricky issues

Good (B)	• Addresses most questions explicitly but a few questions tangentially • Presents most answers clearly and logically	• Demonstrates good understanding of most of the concepts involved • Provides most arguments in a consistent and thorough manner
Satisfactory (C)	• Addresses some questions explicitly but other questions tangentially • Presents some answers clearly	• Demonstrates basic understanding of some of the concepts involved
Fail (F)	• Does not address most questions explicitly • Does not present most answers clearly	• Does not demonstrate basic understanding of the concepts involved

Course Content and CILOs Mapping:

Content		**CILO No.**
I	One or more state-of-the-art topics in data analytics such as (but not limited to) the following topics.	1-3

References:

- Selected articles from journals, magazines, conference proceedings, research monographs, or advanced textbooks.

Course Content:

Topic

I. One or more state-of-the-art topics in data analytics such as (but not limited to) the following topics.
   - Quantitative methods for data analysis
   - Exploratory data analysis and visualization
   - Data analysis on the cloud or at the edge
   - Big data analytics
   - Tools or platforms for data analysis
   - Applications for business, Fintech, or healthcare