Title (Units): **COMP4087 Selected Topics in Web Technology and Data Engineering (3,3,0)**

Course Aims: To learn state-of-the-art topics in Web technology and data engineering.

Prerequisite: The pre-requisite depends on the specific topics covered. The pre-requisite and the chosen 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	Describe the importance of the selected topics in Internet and Web technologies.
2	Describe the problems involved in the selected topics and explain the solutions to these problems.
	Professional Skill
3	Master problem solving and/or practical skills relevant to the selected topics.

Calendar Description: Students will learn state-of-the-art topics in web technology and data engineering. Emphasis will be placed on the current issues, methodologies and/or practice. After completing this course, students will understand some current topics in and methodologies of Internet and large scale systems.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1-2	Student will learn the concepts from lecture
3	Student will achieve the outcomes via assignment
3	Student will achieve the outcomes via guided laboratory

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Continuous Assessment	40%	2-3	Continuous assessments are designed such that students apply what they have learned to solve the problems involved in the selected topics in Internet and Web technologies.
2	Examination	60%	1-3	Final examination questions are designed to assess students' understanding in the concepts and their ability in applying these concepts to solve problems.

Assessment Rubrics:

	Excellent (A)	Good (B)	Satisfactory (C)	Marginal Pass (D)	Fail (F)
Describe the importance of the selected topics in Internet and Web technologies.	Thorough description of almost all relevant concepts	Description of most concepts	Description of some concepts	Description of a small number of concepts	Description of only a few concepts
Describe the problems involved in the selected topics and explain the	Thorough description of most of the problems and explanation of solutions	Description of most of the problems and explanation of solutions	Description of some of the problems and explanation of solutions	Description of a small number of the problems and explanation of solutions	Description of limited problems and explanation of solutions

solutions to these problems.					
Master problem solving and/or practical skills relevant to the selected topics.	Mastering almost all of the skills	Mastering most of the skills	Mastering some of the skills	Mastering a small number of skills	Mastering a limited skills

Course Content and CILOs Mapping:

Content		CILO No.
I	At least one state-of-the-art topic in Web Technology and Data Engineering	1, 2, 3

References:

- The references depend on the selected topics. Typically these references include advanced reference books and/or selected articles from journals, magazines, conference proceedings, research monographs, etc.

Course Content:

Topic

I. At least one state-of-the-art topic in Web Technology and Data Engineering
   - **Internet Systems**
   - **Web Systems**
   - **Social Network Systems**
   - **Network Management**
   - **Security Management**
   - **E-Technology**
   - **Data Mining**
   - **Data Engineering**
   - **Case Studies**
   - **Other contemporary topics in Web Technology and Data Engineering**