

Title (Units): **COMP7790 Special Topics in Internet and Web Technologies (3,3,0)**

Course Aims: To learn state-of-the-art topics in Internet and Web technologies

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 Internet and Web technologies. 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 Web systems.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1, 2, 3	The teaching and learning activities depend on the specific topics covered. These activities may include: (i) Students will learn the key concepts and principles of the subject via lectures; (ii) Tutorials will be conducted to clarify concepts and to have a deeper understanding of the teaching materials, where real-world cases will be studied and problems will be given to students for in-depth discussion; (iii) Students will learn the practical aspects of the topics covered via laboratory sessions; (iv) Students will work on assignments/term paper/project to consolidate and apply what they have learnt.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Continuous Assessment	40%	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 Internet and web technologies.
2	Examination	60%	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	Elaboration on Course Grading Description
Excellent (A)	The student's performance is outstanding in almost all the intended course learning outcomes.
Good (B)	The student's performance is good in most of the intended course learning outcomes.
Satisfactory (C)	The student's performance is satisfactory. It largely meets the intended course learning outcomes.
Fail (F)	The student's performance is inadequate. It fails to meet many of the intended course learning outcomes.

Course Content and CILOs Mapping:

Content		CILO No.
I	One or more state-of-the-art topics in internet and web technologies, such as (but not limited to) the following topics.	1,2,3

References:

Selected articles from journals, magazines, conference proceedings, research monographs, etc.

Course Content:**Topic**

- I. One or more state-of-the-art topics in internet and web technologies, such as (but not limited to) the following topics.
- Advanced Internet and Web Systems
 - Wireless Internet and Mobile Computing
 - Cloud and Edge Computing
 - Internet of Things
 - Crowdsourcing and crowdsensing
 - Network Intelligence
 - Network Economics
 - Security and Privacy Management
 - Advanced Multimedia Computing and Communications
 - Generative Artificial Intelligence with web technologies
 - Web 3.0
 - Case Studies