

WOLLO UNIVERSITY
KOMBOLCHA INSTITUTE OF TECHNOLOGY
COLLEGE OF INFORMATICS
DEPARTMENT OF SOFTWARE ENGINEERING

Course Title	Seminar in Software Engineering
Course Code	SEng4162
CP	3 (1hr Lecture, 2hr Tutorial)
Module Title:	Research and Project Works
Module Number	16
Pre-requisites	None
Year, Semester	4, II
Instructor Address	Mr. Mulugeta L. 0947300026 mulerselinger@gmail.com
Status of Course	Compulsory

Course Description

This course is designed to develop the capability of students to critically and scientifically evaluate published works and also to introduce students to current technologies, research issues and results in selected areas of **Software engineering** or **Computer Science**. Students, in groups or individually, review published papers, prepare well-written reports and present their findings. so there should be a specialized series of seminars on selected topics in software engineering as an essential activity of Software Engineering discipline.

Learning Outcomes/ Course objective and competencies to be acquired

At the end of this course the students will be able to:

- ✓ To make students familiar and acquire knowledge from several areas of the field – with latest global technological development, research activities and about their findings
- ✓ To educate the students with hot topic in software engineering that might not covered by course syllabus due to lack of time.
- ✓ To empower the students' presentation and research skills.

Course Content

Week	Lecture Topics
1-16	Each group must select one of the surveys topics mentioned below, and make a presentation about their research including examples as applicable. Agent Oriented Software Engineering. Goal Oriented Software Engineering. Goal Based Software Engineering Design and Implementation. Test Driven Development - TDD. Model Driven Development - MDD. Professional Ethics in Software Engineering. Aspect Oriented Software Engineering. V-Model – a Software Development Model. Critical Systems Engineering. Open Source Development. Legacy System Management. Embedded Real-Time Software Engineering. Service Oriented Architecture. Distributed Software Engineering. Cleanroom Software Engineering. Green Computing (with focus on Software Engineering). Software Usability Testing. Cloud computing. Cyber security Machine learning Deep learning Data science Big data Iot(internet of things)
Teaching learning methods	Class room lectures, case study on how to analysis existing system of a process and proposing alternative solutions, and finding one the best of the proposed solutions. Student centered active learning methodologies. a visit to software company/industry.

Summary of Teaching Learning Methods

The course will be delivered in the form of lectures, demonstration, student presentations, group discussions, and individual and group project works.

Assessment Methods

The assessment methods for the course are:

- Journal/Diary – 30%
- Presentation – 50%
- Peer Assessment – 20%