Structural Engineering Module				
Course Title	Reinforced Concrete Design II			
Course Code	CEng3132			
Program	B.Sc in Water Resources and Irrigation Engineering			
Module name	Structural Engineering			
Module Coordinator	Name: . …….. Office location . …….. Mobile: . …….; e-mail: ……. Consultation Hours: _____			
Instructor Name	Name: . …….. Office location . …….. Mobile: . …….; e-mail: ……. Consultation Hours: _____			
Course Information	Academic Year : Year: **III** Semester : **I** Meeting Day: To be arranged at the beginning of the semester Meeting Time: To be arranged at the beginning of the semester Meeting Location: To be arranged at the beginning of the semester			
ECTS	**5 ECTS**			
Students' work load in hrs	**Lecture**	**Tutorial**	**Lab**	**Home study**
	2	2	0	4
Course Objectives and Competences Acquired	The course is designed to introduce students to the design of reinforced concrete components such as slabs, columns beams and water retaining structures.			
Course Description	Continuous beams. One way solid and ribbed slabs. Rotation capacity, plastic moment redistribution. Torsion – truss model. Two ways slab systems – two way beam supported slabs, flat slabs. Short columns – combined axial forces and bending, interaction diagrams, biaxial bending. Retaining walls and footings. Design aids. Cylinder columns. Introduction to pre-stressed concrete, water retaining structures.			
Pre-requisite	Reinforced Concrete Design I			
Course status	**Core**			
Schedule/ syllabus				
Week	**Topics and contact hours (Lecture, Tutorial, lab/practical time allocation)**			**Required Reference with pages**
Prepared by Civil & Urban/Civil Engineering Department				
Summary of Teaching and Learning Method	Lecture, tutorials, discussion, individual work, problem solving, project work			
	Percentage mark and type of assessment		Chapter or topics and date	

Assessment	10% Test = Chapter 1,2&3 10% Quizzes = All Chapter 20% assignments = Chapter 2,3,4&5 10% project work 50% Final-exam = Chapters 4,5&6
Course Expectation	**Preparedness and participation**: both students and the teacher should be prepared since education is an interactive process. Students should be active participants in the teaching-learning process. They should be interested to the course and come to class with the necessary materials such as exercise books and pen. In addition, they should to take responsibility in their education. Teachers are also expected be prepared and interested to the course, which they are offering. They have to consult the essential materials ahead of time and try share their knowledge in an efficient and effective manner. **Material availability**: reference materials are expected to be available in the library nearest to respective faculties.
Policy	**Attendance**: students should attend at least 85% Lecture and 100% laboratory or practical. **Assignments**: all students must do all the assignments given **Tests/quizzes**: all students must site/take all tests/quizzes given **Cheating/plagiarism**: cheating/plagiarism is strictly forbidden. It will result in disqualification of the course.
Reference	• Arthur H Nilson, Design of concrete structures, McGraw-Hill, 2003 • W.H Mosley, R.Hulse, & J.H Bungey, Reinforced concrete Design, Palgrave macmillan, 2007 • Jack C. McCormac. Design of reinforced concret, McGraw- Hill, 2005 • EBCS-2 and ECBP-2, the Ethiopian Building code of standards, 1995