Curricular Structure and Course Cycle

Semester I			Semester II		
Course Code	Course Description	Credit Hours	Course Code	Course Description	Credit Hours
STR 501	Advanced Structural Analysis	4	STR 506	Finite Element Method	3
STR 502	Dynamics of Structures	3	STR 507	Earthquake Resistant Design	3
STR 503	Solid Mechanics	3	ACT 508	Advanced Concrete Technology	3
MTH 504	Numerical Methods and Analysis	3		Elective I	3
GTH 505	Foundation Analysis and Design	4		Elective II	3

Semester III			Semester IV		
Course Code	Course Description	Credit Hours	Course Code	Course Description	Credit Hours
STR 509	Advanced Structural Design	4	STR 511	Thesis	12
STR 510	Structural Engineering Laboratory	3			
	Elective III	3			
	Elective IV	3			
	Elective V	3			

Elective Courses

Initially the following courses have been identified for electives. These courses offer students the flexibility to customize their needs and meet their career interests and goals. These are basically sectorial and application courses which address the systematic integration across structure related disciplines. Additional elective options may be offered by a college/school with the prior approval of the Subject Committee and the Dean.

Elective I & II (Each 3 credits)			
Course Code	Course Description	Course Code	Course Description
STR 601	Applied Seismology	MSE 605	Research Methodology
STR 602	Rock Mechanics	SHA 606	Seismic Hazard Analysis
STR 603	Theory of Plates and Shells	DSM 607	Disaster Management
CAD 604	Computer Added Design		

Elective III, IV & V (Each 3 credits)			
STR 701	Bridge Analysis and Design	STR 710	Fracture Mechanics of Concrete
MSE 702	Pre-Stressed Concrete	STR 711	Health Monitoring of Structures
MSE 703	Design of Industrial structure	STR 712	Advanced Design of Steel Structures
HYD 704	Hydraulic Structures	STR 717	Tunnel Engineering
MSE 705	Design of high rise building	STR 714	Optimization in Structural Design
MSE 706	Geotechnical Earthquake Engineering	STR 709	Repair and Rehabitation of Structures

STR 707	Design of Thin Shell Structure	STR 715	Seismic Assessments and Retrofitting of Structures
STR 708	Design of Masonry Structures	SRA 716	Seismic Risk Analysis
STR 713	Non-Linear Analysis of Structures		

19. Thesis (Research Project)

In the fourth semester of their study period, participating students are required to undertake a research project and prepare an integrative research report in any appropriate area of Structural Engineering as approved by the college/school. Students are required to give a pre-defense presentation of their report as organized by the college/school. For the evaluation of the research report, the college/school shall appoint internal and external examiners. The external examiner shall be appointed from the list approved by the Office of the Dean.

The students have to prepare appropriate title of the study with appropriate literature survey and present proposal in the college. After approval of the proposal, student has to conduct the research under the guidance of the supervisor appointed by the college/school. After the field work is completed, data analyzed, report prepared, student has to present pre-defense presentation with the recommendation of the supervisor. After incorporating the comments students have to present the final defense, incorporate comments received and submit final thesis for evaluation in the college/school. To be eligible to final defense, students have to clear all the courses. The student has to use the approved format for the proposal and thesis as provided by the college.

Evaluation Scheme

S. N.	Activity	Maximum Marks allocated for scheduled submission or delayed submission
1.	Proposal submission final defense for approval	10
2.	Mid-term report presentation	15
3.	Workshop/seminar presentation	10
4.	Final thesis presentation	50
5.	Final report	15
	Total	**100**