

1.2.1 List of programs in which Choice Based Credit System (CBCS)/elective course system has been implemented

Programme Name : Civil -Structural Engineering (PG)			
Programme Code: 1-1408968343			
Sr. No.	Class Name	Status of implementation of CBCS / elective course system (Yes/No)	Year of implementation of CBCS / elective course system
1	M.E. Civil -Structural Engineering -I	Yes (CBCS & Elective)	2015-16
2	M.E. Civil -Structural Engineering -II	Yes (CBCS)	2016-17
3	M.Tech. Civil -Structural Engineering -I	Yes (CBCS & Elective)	2018-19
4	M.Tech. Civil -Structural Engineering -II	Yes (CBCS & Elective)	2019-2020



B. Ranga
PRINCIPAL,
College of Engineering
PANDHARPUR



SOLAPUR UNIVERSITY, SOLAPUR

FACULTY OF ENGINEERING & TECHNOLOGY

CIVIL ENGINEERING

Syllabus for

M.E. (Civil-Structures) Semester III and IV

Choice Based Credit System Syllabus (w.e.f.2015-16)





**SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF ENGINEERING & TECHNOLOGY**

STRUCTURE OF M.E. (CIVIL-STRUCTURES)

Choice Based Credit System Syllabus (w.e.f. 2015-16)

Four Semester Course

Semester-I

Sr. No	Subject	Teaching/week				Examination Scheme				Credits			
		L	Pr	Tu	Total	TH	T	OE	Total marks	TH	TW	OE	Total
1	Theory of Elasticity & Plasticity	3	--	1	4	100	25	-	125	3	1	-	4
2	Mechanics of	3	-	1	4	100	25	-	125	3	1	-	4
3	Advanced Design of Concrete Structures	3	-	1	4	100	25	-	125	3	1	-	4
4	Dynamics Structures	3	-	1	4	100	25	-	125	3	1	-	4
5	Elective-I	3	-	1	4	100	25	-	125	3	1	-	4
6	Seminar-I	-	-	1	1	-	50	-	50	-	2	-	2
		15	-	6	21	500	175	-	675	15	7	-	22

Abbreviations: L: Lectures, Pr: Practical, Tu: Tutorial, TH: Theory, TW: Term Work, OE: Oral Exam.

Elective-I: (1) Design of Foundation

(2) Advances in Concrete Composites

(3) Structural Optimization



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STRUCTURE OF M.E. (CIVIL-STRUCTURES)

Choice Based Credit System Syllabus (w.e.f. 2015-16)

Four Semester Course

Semester-II

Sr. No	Subject	Teaching/week				Examination Scheme				Credits			
		L	Pr	Tu	Total	TH	TW	OE	Total marks	TH	TW	OE	Total
7	Theory of Plates & Shells	3	-	1	4	100	25	-	125	3	1	-	4
8	Finite Element Method	3	-	1	4	100	25	-	125	3	1	-	4
9	Earthquake Engineering	3	-	1	4	100	25	-	125	3	1	-	4
10	Advanced Design of Steel Structures	3	-	1	4	100	25	-	125	3	1	-	4
11	Elective-II	3	-	1	4	100	25	-	125	3	1	-	4
12	Seminar-II	-	-	1	1	-	50	-	50	-	2	-	2
		15		6	21	500	175		675	15	7	-	22

Abbreviations: L: Lectures, Pr: Practical, Tu: Tutorial, TH: Theory, TW: Term Work, OE: Oral Exam.

Elective II:

- (1) Stability of structures
- (2) Design of R. C. C. Bridges
- (3) Structural reliability
- (4) Design of folded plates and shells



Solapur University, Solapur

Revised Structure and Syllabus

(W.E.F. 2012-13)

For

M.E. (Civil-STRUCTURES)

Choice Based Credit System (CBCS) - CGPA

For M.E. Civil (Struct) - First Year: With effect from- 2015-16

For M.E. Civil(Struct) - Second Year: With effect from- 2016-17



SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF ENGINEERING & TECHNOLOGY

Curriculum for M.E. Civil-Structures

Choice Based Credit System (CBCS)-CGPA (WEF 2016-17)

Semester III: Laboratory / Tutorial Courses

Course Code	Name of the Course	Engagement Hours			Credits	SA	FA		Total
		L	T	P		ESE	ISE	ICA	
13	Lab. Practice	-	-	1*	1	-	-	25	25
14	Dissertation Phase-I Synopsis Submission Seminar	-	-	3*	3	-	75	-	75
15	Dissertation Phase-II Term work	-	-	-	3	-	100	-	100
16	Dissertation Phase-II Progress Seminar presentation	-	-	--	6	200	-	-	200
Total		--		4*	13	200	175	25	400

L Lecture
T Tutorial
P Lab Session

FA Formative Assessment
SA Summative Assessment
ESE End Semester Examination
ISE In Semester Evaluation
ICA Internal Continuous Evaluation

Note: * Indicates contact hours per student.

- For all activities related to dissertation Phase I (synopsis submission seminar and progress seminar) student must interact regularly every week with the advisor.
- Synopsis submission seminar shall cover detailed synopsis of the proposed work. Student shall submit Synopsis of the Dissertation Work only after delivering this seminar.
- Progress seminar shall be delivered capturing details of the work done by student for dissertation.
- Student shall deliver all seminars using modern presentation tools. A hard copy of the report shall be submitted to the Department before delivering the seminar. A PDF copy of the report must be submitted to the advisor along with other details if any.
- Lab Practice shall include any of the below activities as recommended by Advisor and student shall submit a report after completion of the activity to Advisor along with other details if any. Software / hardware assignments, learning new software, literature survey, filed work, industrial training etc. related to dissertation work.
- Details of modes of assessment of seminar and dissertation shall be as specified in 7(III) of PG Engineering Ordinance of Solapur University, Solapur.



SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF ENGINEERING & TECHNOLOGY

Curriculum for M.E. Civil-Structures

Choice Based Credit System (CBCS)-CGPA (WEF 2016-17)

Semester IV: Laboratory / Tutorial Courses

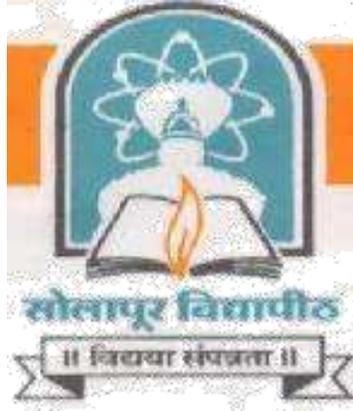
Course Code	Name of the Course	Engagement Hours			Credits	SA	FA		Total
		L	T	P		ESE	ISE	ICA	
17	Dissertation Phase III: Progress Seminar presentation and Report	-	-	5*	4.0	-	100	-	100
18	Dissertation Phase-IV Term work	-	-	-	6.0	-	200	-	200
19	Final submission of the dissertation and Viva voice	-	-	-	6.0	200	-	-	200
Total		-	-	5*	16.0	200	300	-	500

L Lecture
T Tutorial
P Lab Session

FA Formative Assessment
SA Summative Assessment
ESE End Semester Examination
ISE In Semester Evaluation
ICA Internal Continuous Evaluation

Note: * Indicates contact hours per student

- For all activities related to dissertation Phase III, student must interact regularly every week with the advisor.
- Progress seminar shall be delivered capturing details of the work done by student for dissertation.
- Student shall deliver all seminars using modern presentation tools. A hard copy of the report shall be submitted to the Department before delivering the seminar. A PDF copy of the report must be submitted to the faculty advisor along with other details if any.
- Details of modes of assessment of seminar and dissertation shall be as specified in 7(III) of PG Engineering Ordinance of Solapur University, Solapur.



SOLAPUR UNIVERSITY, SOLAPUR

FACULTY OF ENGINEERING & TECHNOLOGY

M.Tech. CIVIL (STRUCTURAL ENGINEERING)

Choice Based Credit System Syllabus

w.e.f. Academic Year 2018-19



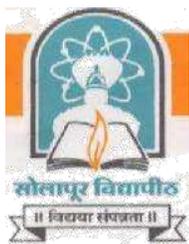
SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF ENGINEERING & TECHNOLOGY
STRUCTURE OF M.Tech. CIVIL (STRUCTURAL ENGINEERING)

Four Semester Course
Choice Based Credit System Syllabus wef 2018 -19

Semester-I

Sr. No.	Subject	Teaching Scheme				Credits				Evaluation Scheme				
		L	T	P	Total	Credits (L)	Credits (T)	Credits (P)	Total Credits	Scheme	Theory Marks	ICA- P Marks	ICA-T Marks	Total Marks
1	Advanced structural analysis	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
2	Advanced solid Mechanics	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
3	Structural dynamics	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
4	Elective- I	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
5	Research Methodology and IPR©	3	-	-	3	3	-	-	3	ISE	30	--	-	100
										ESE	70	--	--	
6	Structural design Lab	-		4	4	-	-	2	2	ISE	50	50	--	100
										ESE	--	--	--	
Total		15	4	4	23	15	4	2	21		550	50	100	700

Note : L- Lectures, P-Practical, T-Tutorial, ISE- In Semester Evaluation, ESE- End Semester Evaluation, ICA- Internal Continuous Assessment
 © - This Course is common for M.Tech. (Civil- Structural Engineering) and M.Tech. (Mechanical-Design Engineering)



SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF ENGINEERING & TECHNOLOGY
STRUCTURE OF M.Tech. CIVIL (STRUCTURAL ENGINEERING)

Four Semester Course
Choice Based Credit System Syllabus wef 2018-19
Semester-II

Sr. No.	Subject	Teaching Scheme				Credits				Evaluation Scheme				
		L	T	P	Total	Credits (L)	Credits (T)	Credits (P)	Total Credits	Scheme	Theory Marks	ICA- P Marks	ICA-T Marks	Total Marks
1	FEM in structural Engineering	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
2	Theory of plates and shells	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
3	Seismic design of multistoried buildings	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
4	Elective – II	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
5	Elective – III	3	1	-	4	3	1	-	4	ISE	30	--	25	125
										ESE	70	--	--	
6	Advanced concrete Lab	-	-	2	2	-	-	1	1	ISE		25	--	25
										ESE	--	--	--	
7	Mini project	-	-	2	2	-		2	2	ISE	--	50	--	50
										ESE	--	--	--	
Total		15	5	4	24	15	5	3	23		500	75	125	700

Note : L- Lectures, P-Practical, T-Tutorial, ISE- In Semester Evaluation, ESE- End Semester Evaluation, ICA- Internal Continuous Assessment

- List of elective courses for semester I and II -

Sr. No.	Elective - I	Sr. No.	Elective - II	Sr. No.	Elective - III
1	Advanced Design of Concrete Structures	1	Design of Prestressed Concrete Structures	1	Theory of Structural Stability
2	Design of Formwork	2	Structural Audits	2	Design of RCC Bridges
3	Advanced Design of Foundation	3	Concrete Composites	3	Advanced Steel Design
4	Structural Optimization	4	Design of Industrial Structures	4	Soil Structure Interaction

Punyashlok Ahilyadevi Holkar Solapur University, Solapur



Name of the Faculty: Science & Technology

CHOICE BASED CREDIT SYSTEM

Syllabus: CIVIL STRUCTURAL ENGINEERING

Name of the Course: M.Tech.- Semester I, II, III & IV

(Syllabus to be implemented from w.e.f. 2018-19 & 2019-20)



**PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF SCIENCE & TECHNOLOGY**

STRUCTURE OF M.Tech. CIVIL (STRUCTURAL ENGINEERING)

Four Semester Course

Choice Based Credit System Syllabus w.e.f. 2019-20

Semester-III

Sr. No.	Subject	Teaching Scheme			Credits			Evaluation Scheme				
		L	P	Total	Credits (L)	Credits (P)	Total Credits	Scheme	Theory Marks	ICA- P Marks	Total Marks	
1	Lab. Practice	-	4	4	-	2	2	ISE	--	50	50	
								ESE	--	--		
2	Open Elective Course#	3	-	3	3		3	ISE	30	--	100	
								ESE	70	--		
3	Dissertation Phase I : Synopsis Submission Seminar*		@4	4	-	2	2	ISE	--	50	50	
										ESE		--
4	Dissertation Phase II : ICA*						-	4	4	ISE	--	100
								ESE	--	--		
5	Dissertation Phase II Progress Seminar*				-	4	4	ISE	--	--	100	
								ESE	--	100		
Total		3	8	11	3	12	15		100	300	400	

L- Lectures, P-Practical, T-Tutorial, ISE- In Semester Evaluation, ESE- End Semester Evaluation, ICA- Internal Continuous Assessment

Note –

- Lab Practice shall include any of the below activities as recommended by Advisor and student shall submit a report after completion of the activity to Advisor along with other details if any. Software / hardware assignments, learning new software, literature survey, filed work, industrial training etc. related to dissertation work.
- *- For all activities related to dissertation Phase I (synopsis submission seminar and progress seminar) student must interact regularly every week with the advisor.
- # - This course is common for all branches of Technology (i.e. for all M.Tech. Programs)
- Synopsis submission seminar shall cover detailed synopsis of the proposed work. Student shall submit synopsis of the dissertation work only after delivering this seminar.
- Progress seminar shall be delivered capturing details of the work done by student for dissertation
- Student shall deliver all seminars using modern presentation tools. A hard copy of the report shall be submitted to the department before delivering the seminar. A PDF copy of the report must be submitted to the advisor along with other details if any
- @ Indicates contact hours of students for interaction with advisor.
- Details of modes of assessment of seminar and dissertation shall be as specified in 7(III) of PG Engineering Ordinance of Solapur University, Solapur

List of open Elective Courses-

Sr.	Subject
1	Business Analytics
2	Operation Research
3	Cost Management of Engineering Projects
4	Non conventional Energy

- New Open Elective Courses may be added as and when required



**PUNYASHLOK AHILYADEVI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR
FACULTY OF SCIENCE & TECHNOLOGY**

STRUCTURE OF M.Tech. CIVIL (STRUCTURAL ENGINEERING)

Four Semester Course

Choice Based Credit System Syllabus w.e.f. 2019-20

Semester-IV

Sr. No.	Subject	Teaching Scheme			Credits			Evaluation Scheme		
		L	P	Total	Credits (L)	Credits (P)	Total Credits	Scheme	ICA- P Marks	Total Marks
1	Dissertation Phase III : Progress Seminar #	-	4@	4	-	3	3	ISE	100	100
2	Dissertation Phase IV: Final presentation and submission of report #	-	2@	2	-	6	6	--	200	200
3	Dissertation Viva – Voce	-	-	-	-	6	6	ESE	200	200
Total		-	6	6	--	15	15	-	500	500

Note –

- #- For all activities related to dissertation Phase III & IV student must interact regularly every week with the advisor.
- Progress seminar shall be delivered capturing details of the work done by student for dissertation
- Student shall deliver all seminars using modern presentation tools. A hard copy of the report shall be submitted to the Department before delivering the seminar. A PDF copy of the report must be submitted to the advisor along with other details if any.
- Student must submit a hard copy of Project Report to the department
- @ indicates contact hours of the student for interaction with the advisor
- Details of modes of assessment of seminar and dissertation shall be as specified in 7 (III) of PG Engineering Ordinance of Solapur University, Solapur.