



**PUNYASHLOK AHILYADEVJI HOLKAR SOLAPUR UNIVERSITY, SOLAPUR**  
**FACULTY OF SCIENCE & 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	--	--	--	
<b>Total</b>		<b>15</b>	<b>5</b>	<b>4</b>	<b>24</b>	<b>15</b>	<b>5</b>	<b>3</b>	<b>23</b>		<b>500</b>	<b>75</b>	<b>125</b>	<b>700</b>

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



**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	100
								ESE	--	--	
5	Dissertation Phase II Progress Seminar*				-	4	4	ISE	--	--	100
								ESE	--	100	
<b>Total</b>		<b>3</b>	<b>8</b>	<b>11</b>	<b>3</b>	<b>12</b>	<b>15</b>		<b>100</b>	<b>300</b>	<b>400</b>

*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-**

<i>Sr.</i>	<i>Subject</i>
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
<b>Total</b>		-	<b>6</b>	<b>6</b>	--	<b>15</b>	<b>15</b>	-	<b>500</b>	<b>500</b>

**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.



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**M.Tech. Civil (Structural Engineering) - II**

**Choice Based Credit System (CBCS)**

## **MINI PROJECT**

### **Lab Scheme:**

2 hours per week, 2 Credits

### **Examination Assessment Scheme:**

ICA: 50 marks

.....

### **Course Outcomes:**

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

1. Identify structural engineering problems reviewing available literature.
2. Study different techniques used to analyze complex structural systems.
3. Work on the solutions given and present solution by using his/her technique applying engineering principles.

### **Syllabus Contents:**

Mini Project shall consist of detailed analysis, design along with working drawings of any one structure.

Mini Project will have mid semester presentation and end semester presentation. Mid semester presentation will include identification of the problem based on the literature review on the topic referring to latest literature available.

The student shall submit report on the subject chosen and make a presentation at the end of Semester-I. End semester presentation should be done along with the report on identification of topic for the work and the methodology adopted involving scientific research, collection and analysis of data, determining solutions highlighting individuals' contribution.

Continuous assessment of Mini Project at Mid Sem and End Sem will be monitored by the Advisor.



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**M.Tech. Civil (Structural Engineering) - III**

**Choice Based Credit System (CBCS)**

**DISSERTATION PHASE- I  
SYNOPSIS SUBMISSION SEMINAR**

Contact hour of student: 4

Credits: 2

**Examination Assessment Scheme:**

ICA: 50 marks

.....

The student is expected to carry out intensive literature survey for a period of about two months in the field of interest and to select a topic for his/her dissertation in consultation with the faculty advisor assigned. The student shall then submit a report and deliver a seminar on the problem chosen by him/her to the panel of three departmental PG recognized faculty members. It shall be expected that a student justifies the gravity and also the relevance of the problem through his/her seminar. This shall be for the approval of synopsis.

The assessment of Synopsis Submission Seminar shall be done by aforesaid panel of three departmental PG recognized faculty members.



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**M.Tech. Civil (Structural Engineering) - III**

**Choice Based Credit System (CBCS)**

**DISSERTATION PHASE- II: ICA**

Contact hour of student: 4

Credits: 4

**Examination Assessment Scheme:**

ICA: 100 marks

.....  
Student shall submit a report to the faculty advisor, on the basis of work carried out in accordance with instructions given by faculty advisor, throughout the semester. Dissertation Phase II evaluation consists of term-work evaluation (ISE) based on the efforts put in by the student to carry out his/her work & the results obtained thereof.

The faculty advisor shall complete the assessment of the report and accordingly allocate the marks to the student out of maximum 100 marks.



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**M.Tech. Civil (Structural Engineering) - III**

**Choice Based Credit System (CBCS)**

**DISSERTATION PHASE- II: PROGRESS SEMINAR**

Contact hour of student: 4

Credits: 4

**Examination Assessment Scheme:**

ESE: 100 marks

.....

Progress seminar shall be delivered capturing details of the work done by the student for dissertation. Student shall deliver seminar using modern presentation tools. A hard copy of report shall be submitted to the faculty advisor before delivering the seminar. A PDF copy of the report must be submitted to the faculty advisor along with other details if any.

End Semester Evaluation (ESE) shall consist of presentation of progress seminar on the report submitted by the student, followed by demonstration before a panel of three departmental PG recognized faculty members.





**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**M.Tech. Civil (Structural Engineering) - IV**

**Choice Based Credit System (CBCS)**

**DISSERTATION PHASE- III: PROGRESS SEMINAR**

Contact hour of student: 4

Credits: 3

**Examination Assessment Scheme:**

ICA: 100 marks

.....

For all activities related to Phase III, student must interact regularly every week with the faculty advisor. The student who has cleared his/her Phase II evaluation, shall submit a report and present the status of work carried out on the dissertation after 8-10 weeks of Phase II ESE to three departmental PG recognized faculty members.

Progress seminar shall be delivered capturing details of the work done by student for dissertation. Student shall deliver seminar using modern presentation tools. A hard copy of report shall be submitted to the faculty advisor before delivering the seminar. A PDF copy of the report must be submitted to the faculty advisor along with other details if any.

The evaluation will be done by the aforesaid panel of three departmental PG recognized faculty members based on the requirements of completion of dissertation work for the dissertation Phase-III.



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**

**M.Tech. Civil (Structural Engineering) - IV**

**Choice Based Credit System (CBCS)**

**DISSERTATION PHASE- IV:  
FINAL PRESENTATION AND SUBMISSION OF REPORT**

Contact hour of student: 2

Credits: 6

**Examination Assessment Scheme:**

ICA: 200 marks

.....

After completing the dissertation work to the satisfaction of faculty advisor, the student shall submit the dissertation report to the University in the prescribed format. The final approved dissertation shall be submitted in black bound hard copy along with soft copy on CD/DVD.

The evaluation of dissertation is to be carried out by the faculty advisor as ICA for 100 marks. This evaluation shall be on the basis of the requirements of completion of dissertation work. The faculty advisor shall submit mark list of term work marks, along with the submission of dissertation to university as mentioned in assessment scheme.



**Punyashlok Ahilyadevi Holkar Solapur University, Solapur**  
**M.Tech. Civil (Structural Engineering) - IV**

**Choice Based Credit System (CBCS)**

**DISSERTATION VIVA- VOCE**

Credits: 6

**Examination Assessment Scheme:**

ICA: 200 marks

.....

Open defense of the student on his/her dissertation shall be arranged by the university. This defense shall be in front of the panel of examiners as appointed by university authority. The evaluation will be done by panel of examiners as appointed by university authority.