

**I.K.Gujral Punjab Technical University Jalandhar, Kapurthala
Study Scheme and Syllabus of B. Tech Civil Engineering, Batch 2018 onwards**

Study scheme

Third Semester										
S. No.	Category	Subject Code	Course Title	Hours per week			Marks			Credits
				L	T	P	Int	Ext	Total	
1	Professional Core courses	BTCE-301-18	Surveying & Geomatics	3	1	0	40	60	100	4
2	Professional Core courses [#]	BTCE-302-18	Solid Mechanics [#]	3	0	0	40	60	100	3
3	Professional Core courses [#]	BTCE-303-18	Fluid Mechanics [#]	3	0	0	40	60	100	3
4	Basic Science Course	BTAM-301-18	Mathematics III [#] (Transform & Discrete Mathematics)	4	0	0	40	60	100	4
5	Engineering Science Course	BTEC-305-18	Basic Electronics & applications in Civil Engineering	3	0	0	40	60	100	3
6	Humanities and Social Sciences including Management	HSMC-132-18	Civil Engineering-Introduction, Societal & Global Impact	3	0	0	40	60	100	3
7	Professional Core courses	BTCE-306-18	Surveying & Geomatics Lab	0	0	2	30	20	50	1
8	Professional Core courses	BTCE-307-18	Fluid Mechanics Lab	0	0	2	30	20	50	1
9	Professional Core courses	BTCE-308-18	Solid Mechanics Lab	0	0	2	30	20	50	1
10		BMPD-301-18	Mentoring and Professional Development	0	0	2	Satisfactory/ Unsatisfactory			-
11	Professional Skill Enhancement	BTCE-332-18	Training – I*	-	-	-	60	40	100	1
			29	19	2	8	390	460	850	24
<p>* Students have already completed 3 weeks institutional training and field and market survey in Summer vacation which is to be evaluated by viva-voce conducted along End semester exam of Third semester.</p>										

Note : # These are the minimum contact hrs. allocated.

The contact hrs. may be increased by institute as per the need based on the content of subject.

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Fourth Semester										
S No	Category	Subject Code	Course Title	Hours Per Week			Marks			Credits
				L	T	P	Int	Ext	Total	
1	Professional Core courses	BTCE-401	Concrete Technology	3	0	0	40	60	100	3
2	Professional Core courses	BTCE-402	Material, Testing & Evaluation	4	0	0	40	60	100	4
3	Professional Core courses	BTCE-403	Hydrology & Water Resources	3	1	0	40	60	100	4
4	Professional Core courses	BTCE-404	Transportation Engineering	3	1	0	40	60	100	4
5	Professional Core courses	BTCE-405	Disaster Preparedness & Planning	3	0	0	40	60	100	3
6	Basic Sciences (Mandatory Courses)	EVS-101-18	Environment Science (Non- credit)	2	0	0	50	-	50	0
7	Professional Core courses	BTCE-406-18	Concrete Testing Lab	0	0	2	30	20	50	1
8	Professional Core courses	BTCE-407-18	Transportation Lab	0	0	2	30	20	50	1
9	Professional Skill Enhancement		Training –II*	0	0	0	-	-	-	-
10		BMPD-401-18	Mentoring and Professional Development	0	0	2	Satisfactory/ Unsatisfactory			-
			26	18	2	6	310	340	650	20

* 2 weeks survey camp and 4 weeks industrial/institutional training for which viva will be conducted along End semester examination of Fifth semester.

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Fifth Semester										
S No	Category	Subject Code	Course Title	Hours Per Week			Marks			Credits
				L	T	P	Int	Ext	Total	
1	Professional Core courses	BTCE-501-18	Engineering Geology	3	0	0	40	60	100	3
2	Professional Core courses	BTCE-502-18	Elements of Earthquake	3	0	0	40	60	100	3
3	Professional Core courses	BTCE-503-18	Construction Engineering & Management	3	0	0	40	60	100	3
4	Professional Core courses	BTCE-504-18	Environmental Engineering	4	0	0	40	60	100	4
5	Professional Core courses	BTCE-505-18	Structural Engineering	3	1	0	40	60	100	4
6	Professional Core courses #	BTCE-506-18	Geotechnical Engineering#	3	0	0	40	60	100	3
7	Professional Core courses	BTCE-507-18	Geotechnical Lab	0	0	2	30	20	50	1
8	Professional Core courses	BTCE-508-18	Environmental Engineering Lab	0	0	2	30	20	50	1
9	Professional Core courses	BTCE-509-18	Structural Lab	0	0	2	30	20	50	1
10		BMPD-501-18	Mentoring and Professional	0	0	2	Satisfactory/ Unsatisfactory			-
11	Professional Skill Enhancement	BTCE-532-18	Training – II*	-	-	-	60	40	100	1
			28	19	1	8	390	460	850	24
* Students have already completed 2 weeks survey camp and 4 weeks summer internship in Summer vacation which is to be evaluated by viva-voce conducted along End semester exam of Fifth semester.										
Sixth Semester										
S No	Category	Subject Code	Course Title	Hours Per Week			Marks			Credits
				L	T	P	Int	Ext	Total	
1	Professional Core courses	BTCE-	Estimation & Costing and Professional	3	1	0	40	60	100	4
2	Professional Core courses	BTCE-116	Construction Practices	3	0	0	40	60	100	3
3	Professional Elective courses	BTCE-XXX	Elective – I	3	1	0	40	60	100	4
4	Professional Elective courses	PECE-XXX	Elective – II	3	1	0	40	60	100	4
5	Professional Core courses	BTCE-109	CAD Lab	0	0	2	30	20	50	1
6	Open Elective courses	OEZZ-XXX	Open Elective – I	3	0	0	40	60	100	3
7	Project	PRCE-102	Minor Project (Estimation & costing)	0	0	4	60	40	100	2
8	Mandatory Courses	MCXX-XX	Constitution of India	2	0	0	50	-	50	0
9		BMPD-601-18	Mentoring and Professional	0	0	2	Satisfactory/ Unsatisfactory			-
			28	17	3	8	340	360	700	21

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# 6 weeks industrial/institutional training for which viva will be conducted along End semester exam of Seventh semester.										
Seventh Semester										
S No	Category	Subject Code	Course Title	Hours Per Week			Marks			Credits
				L	T	P	Int	Ext	Total	
1	Professional Elective courses	PECE-XXX	Elective – III	3	1	0	40	60	100	4
2	Professional Elective courses	PECE-XXX	Elective – IV	3	1	0	40	60	100	4
3	Open Elective courses	OEZZ-XXX	Open Elective – II(Metro system and Engg)	3	0	0	40	60	100	3
4	Professional Core courses	BTCE-	Software Application Lab	0	0	2	30	20	50	1
5	Project	PRCE-	Project -I (Project work / internship in industry or at appropriate work place)	0	0	6	120	80	200	3
6	Project/Training	BTCE-732-18	Training – III	-	-	-	60	40	100	2
7	Mandatory Courses (Non-credit)	BTMC-XXXX	Management- I (Organizational Behavior and Entrepreneurship)	2	0	0	50	-	50	0
8		BMPD-701-18	Mentoring and Professional	0	0	2	Satisfactory/ Unsatisfactory			-
			23	11	2	10	430	320	750	17
Eighth Semester										
S No	Category	Subject Code	Course Title	Hours Per Week			Marks			Credits
				L	T	P	Int	Ext	Total	
1	Professional Elective courses	PECE-XXX	Elective – V	3	1	0	40	60	100	4
2	Professional Elective courses	PECE-XXX	Elective – VI	3	1	0	40	60	100	4
3	Open Elective courses	OEZZ-XXX	Open Elective – III	3	0	0	40	60	100	3
4	Project	PRCE-104	Project -II (Project work / internship in industry or at appropriate work place)	0	0	6	120	80	200	3
5		BMPD-801-18	Mentoring and Professional	0	0	2	Satisfactory/ Unsatisfactory			-
			19	9	2	8	240	260	500	14