



ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

A Unit of Alva's Education Foundation (R)

(Affiliated to Visvesvaraya Technological University, Belagavi

Approved by AICTE, New Delhi & Recognised by Government of Karnataka)

Shobhavana Campus, Mijar, Moodbidri - 574 225, Mangalore, D.K., Karnataka State.

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Ref: AIET/ACA/2019-20/71

Date: 17/08/2019

To,

The Chairman,

Board of Studies (BoS)

Computer Science & Engineering

VTU, Belagavi

Sub: Proposed suggestions for Proposed Syllabus 2018- Scheme of VTU Syllabus- reg.

With reference to the above cited subject, we have hereby enclosed a list of curricular gaps and the proposed suggestions for some courses in of proposed 2018 Scheme/Syllabus of Civil Engineering board of Visvesvaraya Technological University , Belagavi.

We highly recommend you the following changes in the list and request you to consider those during the revision of the curriculum and syllabus by the university.

Thanking you


Head of the Department

Civil Engineering

H.O.D.
Dept. of Civil Engineering
Alva's Institute of Engg. & Technology
Mijar, Moodbidri - 574 225


Principal

AIET, Moodbidri

PRINCIPAL

Alva's Institute of Engg. & Technology,
Mijar, MOOBBIDRI - 574 225, D.K

Curricular Gaps and Proposed Suggestions

1. In 2018 Scheme, Computer aided Building Planning & Drawing laboratory (18CVL37) was include for the third semester. Since students will study Design of RC structural element in the fifth semester. Hence we request you to include the Computer aided Building Planning & Drawing laboratory (18CVL37) in the fifth or sixth semester.
2. The Bridge Engineering (18CV821), is offered as professional elective course. Since this subject is required for all the students for placement. We request you to consider it as core course during the revision of scheme and syllabus
3. In the 2010 scheme Hydraulic structures and irrigation design drawing was included. But in 2017 and 2018 scheme this was eliminated. We request you to consider this course during the revision of scheme and syllabus


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Visvesvaraya Technological University, Belagavi													
B.E.in Civil Engineering													
Scheme of Teaching and Examinations 2021													
Outcome-Based Education (OBE) and Choice Based Credit System													
(CBCS) (Effective from the academic year 2021-22)													
III SEMESTER													
Sl.No	Course and Course Code		Course Title	Teaching Department	Teaching Hours / Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	BSC	21MAT31	Engineering Mathematics III					3	50	50	100	3	
2	IPCC	21CV32	Fluid Mechanics and Hydraulics		3	0	2	3	50	50	100	4	
3	IPCC	21CV33	Strength of Material		3	0	2	3	50	50	100	4	
4	PCC	21CV34	Engineering Geology					3	50	50	100	3	
5	PCC	21CVL35	Computer Aided Building Planning and Drawing		0	0	2	3	50	50	100	1	
6	INT	21INT36	Summer Internship-I	Completed during the vacation of II and III semesters. Lateral entry students have to attend the internship during the vacation of III & IV semester ***				50	50	100	2		
7	HSMC	21KSK37	Sanskritikka Kannada or Balaka Kannada		1	0	0	1	50	50	100	1	
		Or											
		21CPC37	Constitution of India Professional Ethics and cyber law		1	0	0						
		21CV38	AEC-III		1	0	0						
8					1	0	0	1	50	50	100	1	
9	UHV	21CV39	UHV-I Social Connect And Responsibility		1	0	0	1	50	50	100	1	
Total									18	450	450	900	20
Note: BSC: Basic Science Course, PCC: Professional Core Course, HSMC: Humanity and Social Science & Management Courses, AEC – Ability Enhancement Courses. INT – Internship, UHV- Universal Human Value Courses, IPCC: Integrated Professional Core Course.													

L-Lecture, T-Tutorial, P-Practical/Drawing, S-Self Study Component, CIE: Continuous Internal Evaluation, SEE: Semester End Examination													
21KBK37 Balake Kannada is for non-Kannada speaking, reading, and writing students, and 21KSK37 Samskrutika Kannada is for students who speak, read and write Kannada.													
The course prescribed to lateral entry Diploma holders admitted to III semester of Engineering programs													
10	NCMC	21MATDIP31	Additional Mathematics-I	Maths	02	02	--			100	---	100	0
<p>1. The mandatory non - credit courses Additional Mathematics I and II prescribed for III and IV semesters respectively, to the lateral entry Diploma holders admitted to III semester of BE/B.Tech., programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the Continuous Internal Evaluation (CIE). In case, any student fails to register for the said course/fails to secure the minimum 40% of the prescribed CIE marks, he/she shall be deemed to have secured an F grade. In such a case, the student has to fulfill the requirements during subsequent semester/s to appear for CIE.</p> <p>2. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.</p>													
<p>***21INT36: Lateral Entry students: All the students admitted to engineering programs under the lateral entry category shall have to undergo a mandatory 21INT36 summer Internship-I of 03 weeks during the intervening vacation of III and IV semesters. Summer Internship shall include Inter / Intra Institutional activities. A University Viva-voce examination shall be conducted during the IV semester examinations and the prescribed credit earned after successful completion of the course 21INT36 shall be included in the III semester grade card. The III semester grade card shall be issued only after completing all the courses of III semester. The internship shall be considered as ahead of passing and shall be considered for vertical progression and for the award of degree. Those, who do not take up / complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements during subsequent semesters. (The faculty coordinator or mentor has to monitor the students' internship progress and interact with guide them for the successful completion of the internship.)</p> <p>Integrated Professional Core Course (IPCC): refers to Professional Theory Core Course Integrated with Practical of the same course. Credit for IPCC can be 04 considering L:T:P as 3:0:2 or L:T:P as 2:2:2. The theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by CIE only and there shall be no SEE. For more details, the regulation governing the Degree of Bachelor of Engineering /Technology (BE/B.Tech.,) 2021-22 may be referred.</p> <p>Summer Internship-I: SEE shall be through seminar and viva-voce.</p>													

Ability Enhancement Courses-III	
21XX381	Problem Solving Using Python
21XX382	Microsoft Excel and VBA
21XX383	Personality Development and Soft Skills
21XX384	Infrastructure Finance
21XX385	Fire Safety in Buildings

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(CBCS) (Effective from the academic year 2021-22)													
IV SEMESTER													
Sl. No	Course and Course Code		Course Title	Teaching Department	Teaching Hours / Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self-Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	BSC	21MAT41	Analysis of Determinate Structure					3	50	50	100	3	
2	IPCC	21CV42	Geodetic Engineering		3	0	2	3	50	50	100	4	
3	IPCC	21CV43	Public Health Engineering		3	0	2	3	50	50	100	4	
4	PCC	21CV44	Hydrology & Water Resource Engineering					3	50	50	100	3	
5	AEC	21CV45	Biology for Engineers	BT, CHE, PHY,	2	0	0	2	50	50	100	2	
5	PCC	21CVL46	Engineering Geology Lab		0	0	2	3	50	50	100	1	
6	HSMC	21KSK47	Sanskritikka Kannada or Balaka Kannada	HSMC	1	0	0	1	50	50	100	1	
		21CPC47	Constitution of India, Professional Ethics and Cyber Law										
8	AEC	21CV48X	AEC-IV		1	0	0	1	50	50	100	1	
9	UHV	21CV49	UHV-II Social Connect and Responsibility		1	0	0	1	50	50	100	1	
TOTAL									20	450	450	900	20
Note: BSC: Basic Science Course, PCC: Professional Core Course, HSMC: Humanity and Social Science & Management Courses, AEC – Ability Enhancement Courses. INT – Internship, UHV – Universal Human Value Courses, IPCC : Integrated Professional Core Course. L – Lecture, T – Tutorial, P – Practical/ Drawing, S – Self Study Component, CIE : Continuous Internal Evaluation, SEE : Semester End Examination													
21KSK47 Balaka Kannada is for non-Kannada speaking, reading, and writing students, and 21KSK47 Sanskritika													

Kannada is for students who speak, read and write Kannada.

Summer Internship-II (21INT58): shall be carried out at industrial (State and Central Government /Non-government organizations (NGOs)/Micro, Small and Medium Enterprise (MSME)/Innovation centers/ Incubation centers. The internship can also be Rural internship. All the students admitted shall have to undergo a mandatory internship of 04 weeks during the intervening vacation of IV and V semesters. A University Viva-Voce examination (Presentation followed by Question & Answer session) shall be conducted during V semester and the prescribed credit shall be included in the V semester. The internship shall be considered as a head of passing and shall be considered for the award of degree. Those, who do not take up/complete the internship shall be declared fail and shall have to complete during subsequent University examination after satisfying the internship requirements. (The faculty coordinator or mentor has to monitor the students' internship progress and interact to guide them for the successful completion of the internship.)

Summer Internship-II: SEE shall be through seminar and viva-voce.

The course prescribed to lateral entry Diploma holders admitted to III semesters of Engineering programs

10	NCMC	21MATDIP41	Additional Mathematics-II	Maths	02	02	--		100	---	100	0
<p>1. The mandatory non – credit courses Additional Mathematics II prescribed for IV semester, to the lateral entry Diploma holders admitted to III semesters BE/B.Tech., programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the Continuous Internal Evaluation (CIE). In case, any student fails to register for the said course/fails to secure the minimum 40% of the prescribed CIE marks, he/she shall be deemed to have secured an F grade. In such a case, the student has to fulfill the requirements during subsequent semester/s to appear for CIE.</p> <p>2. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree</p>												
<p>Integrated Professional Core Course (IPCC): refers to Professional Theory Core Course Integrated with Practical of the same course. Credit for IPCC can be 04 considering L:T:P as 3:0:2 or L:T:P as 2:2:2. Theory part of the IPCC shall be evaluated both by CIE and SEE. The practical part shall be evaluated by CIE only and there shall be no SEE. For more details the regulation governing the Degree of Bachelor of Engineering /Technology (BE/B.Tech.,) 2021-22 may be referred.</p>												

Ability Enhancement Courses-IV	
21XX481	Data Manipulation with Python Pandas
21XX482	GIS with Quantum GIS
21XX483	Technical Writing Skills
21XX484	Project Finance
21XX485	Green Buildings

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V SEMESTER													
Sl. No	Course and Course Code		Course Title	Teaching Department	Teaching Hours / Week				Examination				Credit
					Theory Lecture	Tutorial	Practical/ Drawing	Self Study	Duration In hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	BSC	21CV51	Analysis of Indeterminate Structures					3	50	50	100	3	
2	IPCC	21CV52	Highway Engineering		3	0	2	3	50	50	100	4	
3	PCC	21CV53	Design of RC Structural Elements					3	50	50	100	3	
4	PCC	21CV54	Geo Technical Engineering					3	50	50	100	3	
5	PCC	21CVL55	Geo Technical Engineering Lab		0	0	2	3	50	50	100	1	
6	AEC	21CV56	Research Methodology & IPR	Any Dept.	2	0	0	2	50	50	100	2	
7	INT	21CV57	Summer Internship-II (Extensive Survey Project)		Completed during the vacation of IV and V semesters			3	50	50	100	3	
8	HSMC	21CV58	Environmental Studies	Civil/Environmental Chemistry/Biotech [Paper setting: Civil Engineering Board]	1	0	0	1	50	50	100	1	
TOTAL									21	400	400	800	20
9	NMC	21PE59/21Y059/21NS59	Physical Education (Sport & Athletics)/YOGA & NSS	PE/NSS	-	-	2		50	50	100	0	
Note: BSC: Basic Science Course, PCC: Professional Core Course, HSMC: Humanity and Social Science & Management Courses, AEC – Ability Enhancement Courses. INT – Internship, IPCC: Integrated Professional Core Course. L –Lecture, T –Tutorial, P -Practical/Drawing, S –Self Study Component, CIE : Continuous Internal Evaluation, SEE : Semester End Examination													

1. The mandatory non – credit courses **Physical Education (Sport and Athletics), Yoga and NSS I and II** prescribed for V and VI semesters respectively, to the students admitted to V semester of B.E./B.Tech., programs, shall attend corresponding the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/fails to secure the minimum of 40% of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the student has to fulfill the requirements during subsequent semester/s to appear for SEE.
2. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.
3. The students who take a course on Physical education he/she has to take up the semester-end practical examination prescribed for 100 marks. The students who opt for the NSS course have to submit reports and attend to viva-voce examination. The marks for the report shall be 50 marks and for presentation and viva-voce 50 marks.

Integrated Professional Core Course (IPCC): It refers to Professional Theory Core Course Integrated with Practical of the same course. Credit for IPCC can be 04 considering L:T:P as 3:0:2 or L:T:P as 2:2:2. For an IPCC, the theory part shall be evaluated by both CIE and SEE, and the practical part is evaluated by CIE only (there shall be no semester-end examination (SEE) for the practical part). For more details the regulation governing the Degree of Bachelor of Engineering /Technology (BE/B.Tech.) 2021-22 may be referred.

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VI SEMESTER													
Sl.No	Course and Course Code		Course Title	Teaching Department	Teaching Hours/Week				Examination				Credits
					Theory Lecture	Tutorial	Practical/ Drawing	Self Study	Duration in hours	CIE Marks	SEE Marks	Total Marks	
					L	T	P	S					
1	HSMC	21CV61	Construction Management & Entrepreneurship					3	50	50	100	3	
2	IPCC	21CV62	Concrete Technology and Smart Materials		3	0	2	3	50	50	100	4	
3	PCC	21CV63	Design of Steel Structures					3	50	50	100	3	
4	PEC	21CV64x	Professional Elective-I					3	50	50	100	3	
5	OEC	21CV65x	Open Elective -I					3	50	50	100	3	
6	PCC	21CVL66	Computer Aided Detailing of Structure		0	0	2	3	50	50	100	1	
7	MP	21CVP67	MiniProject					3	100	---	100	2	
8	AEC	21CV68X	AEC-V		1	0	0	1	50	50	100	1	
TOTAL									22	450	350	800	20
9	NCMC	21PE59/21Y059/ 21NS59	Physical Education (Sport & Athletics)/YOGA & NSS	PE/NSS	-	-	2		50	50	100	0	
<p>Note: BSC: Basic Science Course, PCC: Professional Core Course, HSMC: Humanity and Social Science & Management Courses, PEC: Professional Elective Courses, OEC – Open Elective Course, AEC – Ability Enhancement Courses. MP – Mini Project, IPCC: Integrated Professional Core Course</p> <p>L–Lecture, T–Tutorial, P–Practical/Drawing, S–Self Study Component, CIE: Continuous Internal Evaluation, SEE: Semester End Examination</p> <p>4. The mandatory non – credit courses Physical Education (Sport and Athletics), Yoga and NSS I and II prescribed for V and VI semesters respectively, to the students admitted to V semester of B.E./B.Tech., programs, shall attend the classes during the respective semesters to complete all the formalities of the course and appear for the University examination. In case, any student fails to register for the said course/ fails to secure the minimum 40% of the prescribed CIE marks, he/she shall be deemed to have secured F grade. In such a case, the student has to fulfill the requirements during subsequent semester/s to appear for SEE.</p> <p>5. These Courses shall not be considered for vertical progression, but completion of the courses shall be mandatory for the award of degree.</p>													

<p>1. The students who take course on Physical education he has to take up practical examination for SEE. The students who take NSS course have to submit report, for SEE has to present(PPT) and answer vivo-voce for marks in the ratio 50:50</p>
<p>Research/Industry Internship (21INT82)– At the End of the sixth / Seventh semester (in two cycles to accommodate all the students of the University)Research/Industrial Internship shall be carried out – Based on industrial/Govt./NGO/MSME/Rural Internship/Innovation/Entrepreneurship.All thestudentsadmittedshallhavetoundergoa mandatoryinternshipof 24weeksduringthevacationofVI/VIIsemesters.AUniversityViva-Voceexaminationshall be conducted during VII/VIII semester and the prescribed credit shall be included in VII/VIII semester. The internship shall be considered as a head ofpassingandshallbeconsideredfortheawardofdegree.Those,whodonottakeup/completetheinternshipshallbedeclaredfailandshallhaveto CompleteduringsubsequentUniversityexaminationaftersatisfyingtheinternshiprequirements.</p>
<p>ResearchinternshipStudentshavetotakeupresearchinternshipsatCentersofExcellence(CoE)/StudyCentersestablishedinthesameinstituteand /or out of the institute at reputed research organizations / Institutes. A research internship is intended to give you the flavor of current researchgoing on ina particular topic/s. This helps students get familiarized with the field, the skill needed the effort amountandkindof effort requiredfor carryingout research inthatfield.</p> <p>Industry internships: Is an extended period of work experience undertaken by students looking to supplement their degree withprofessional development. The students are allowed to prepare themselves for the workplace and develop practical skills as well as academic ones. Italso helps them learn to overcome unexpected obstacles and successfully navigate organizations, perspectives, and cultures. Dealing with contingencieshelpsstudents recognize,appreciate,andadapttoorganizationalrealities bytemperingknowledgewithpracticalconstraints. The student can take up Interdisciplinary Industry Internship. Students can undergo industry internships in recognized industries from local/within the state/within the country/abroad within the stipulated time as mentioned in the scheme The faculty coordinator or mentor has to monitor the students' internship progress and interact to guide them for the successful completion of the internship. University shall not bear any expenses incurred in respect of internship.</p>
<p>Mini-project work: Based on the ability/abilities of the student/s and recommendations of the mentor, a single discipline or a multidisciplinary Mini-project can be assigned to an individual student or to a group having not more than 4 students. (or Mini Project is a laboratory-oriented course which willprovideaplatformto studentsto enhance their practical knowledge andskills bythe developmentofsmallsystems/applications)</p> <p>CIEprocedureforMini-project:</p> <p>(i) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior facultymembers of the Department, one of whom shall be the Guide. The CIE marks awarded for the Mini-project work shall be based on the evaluationof project report, project presentation skill, and question and answer session in the ratio of 50:25:25.The marks awarded for the project report shall bethesame for all the batchmates.</p> <p>(ii) Interdisciplinary: Continuous Internal Evaluation shall be group-wise at the college level with the participation of all the guides of the college.The CIE marks awarded for the Mini-project, shall be based on the evaluation of project report, project presentation skill, and question andanswer session in the of ratio 50:25:25.The marks awarded for the project report shall be the same for all the batch mates.</p> <p>SEE for Mini-project:</p> <p>(i) Single discipline: Contribution to the Mini-project and the performance of each group member shall be assessed individually in the semester-end examination (SEE) conducted at the department.</p> <p>(ii) Interdisciplinary: Contribution to the Mini-project and the performance of each groupmembershallbeassessedindividuallyinsemester-</p>

end examination (SEE) conducted separately at the department to which the student/s belongs.

Professional Elective Courses (PEC):

A professional elective (PEC) course is intended to enhance the depth and breadth of the educational experience in the selected stream of the Engineering & Technology curriculum. Multidisciplinary courses that supplement the programs have been added as elective courses. These courses deal with the latest trend and advanced technology in the selected stream of engineering. Three groups of PEC are made available for undergraduate students in the curriculum. Each group will provide an option to select one out of four to five. Each group of Professional Elective Courses contains all stream courses, which will help the students to select and study particular stream course of his interest. (Courses which are common to AU, ME, IP Board should have the same code) Similarly for (CSE, ISE, MCA) and (CV, Arch, Mining) and (EEE, ECE, EIE,) and (CH, SX, TX).

The minimum students' strength for offering professional electives is 05, if the strength is less than the 05 then the college has to take the permission to offer the course.

Professional Elective Courses may be Integrated courses having both Theory and Practical syllabus, However total credits for the course shall remain (L:T:P = 2:0:2)/(L:T:P = 1:2:2) = 03 only.

Integrated Professional Core Course (IPCC): It refers to Professional Theory Core Course Integrated with Practicals of the same course. Credit for IPCC can be 04 considering L:T:P as 3:0:2 or L:T:P as 2:2:2. For an IPCC, theory part shall be evaluated by both CIE and SEE and practical part be evaluated by CIE only (there shall be no semester end examination (SEE) for the practical part). For more details the regulation governing the Degree of Bachelor of Engineering /Technology (BE/B.Tech) 2021-22 may be referred.

Open Elective Courses:

All Open Electives are offered to students of all branches in general. However, a student shall choose an open Elective from the list in such a manner that he/she has not studied the same course in any form during the Program.

Students can select any one of the open electives offered by other Departments except those that are offered by the parent Department (Please refer to the list of open electives). Selection of an open elective shall not be allowed if,

- The candidate has studied the same course during the previous semesters of the program.
- The syllabus content of open electives is similar to that of the Departmental core courses or professional electives.
- A similar course, under any category, is prescribed in the higher semesters of the program.
- Registration to electives shall be documented under the guidance of the Program Coordinator/Advisor/Mentor.

Courses from Law, Business (MBA), Medicine, Arts, Commerce, may be offered as Open Elective Courses (OEC). However, the college has to take approval from the University if such courses are not listed in the group at least one month before the commencement of the semester.

The minimum students' strength for offering professional electives is 05, if the strength is less than the 05 then colleges have to take the permission to offer the course from the University.

Professional Core Course (Integrated): Theory Syllabus of Professional Core Courses integrated with Practical Syllabus of the same course. Credit for integrated subject will be (L: T: P = 3:0:2)/(L:T:P = 2:2:2) = 04. In such a course there is no Semester End Examination (SEE) for the practical syllabus of the course, however Continuous Internal Evaluation (CIE) will be conducted for the practical topics.

Professional Elective Courses-I		Open Elective Courses-I	
Subject Code	Title	Subject Code	Title
21XX641	Design of Prestressed Concrete Structures	21XX651	Remote Sensing & GIS
21XX642	Applied Geotechnical Engineering	21XX652	Traffic Engineering
21XX643	Railways, Harbors and Tunneling	21XX653	Occupational Health and Safety
21XX644	Design Concept in Building Services	21XX654	Sustainability Concepts in Civil Engineering
21XX645	Ground Water Hydraulics	21XX655	Course on NCC
	Alternative Building Materials		

Ability Enhancement Courses-V	
21XX681	Applications of AI in Civil Engineering
21XX682	Software applications
21XX683	Gender Sensitization
21XX684	Quality Control and Quality Assurance
21XX685	Offshore Structures

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VII/VIII SEMESTER													
Sl.No	Course and Coursecode		CourseTitle	Teaching Department	Teaching Hours/Week				Examination			Credits	
					Theory Lecture	Tutorial	Practical /Drawing	Self Study	Duration in hours	CIE Marks	SEE Marks		Total Marks
					L	T	P	S					
1	PCC	21CV71	Quantity Survey & Contract Management					3	50	50	100	3	
2	PEC	21CV72X	Professional Elective-II					3	50	50	100	3	
3	PEC	21CV73X	Professional Elective-III					3	50	50	100	3	
4	OEC	21CV74X	Open Elective-II					3	50	50	100	3	
5	Project	21CVP75	Project Work					3	100	100	200	10	
6	AEC	21CV76X	AEC -VI(Online)		2	0	0	2	--	--	--	2	
TOTAL								17	300	300	600	24	

OR

VIII/VII SEMESTER(1)												
Sl.No	Course and Coursecode		CourseTitle	Teaching Dept	Teaching Hours/Week			Examination			Credits	
					Theory Lecture	Tutorial	Practical /Drawing	Duration in hours	CIE Marks	SEE Marks		Total Marks
					L	T	P					
1	Seminar	21CVS84	Technical Seminar						100	--	100	01
2	Internship	21CVI85	Research/Industry Internship*						100	100	200	15
TOTAL									200	100	300	16

Note:(1) Institutions can swap 7th and 8th Semester Coursework to accommodate industry/research internship at the end of the sixth semester
 (2) Credit earned for the coursework shall be credited to the corresponding semester, i.e., 7th or 8th whether 7th and 8th semesters were completed during the first half or second half of the IV year of program

Research / Industry Internship-(21INT82): shall be as far as possible be interdisciplinary in nature. If a provision is there all the students of the program can take up an internship in the 8th semester, if not 50% of students can take internship-III at the 7th-semester level, and the remaining 50% of students can take in 8th-semester level.

<p>Note: PCC: Professional Core Course, PEC: Professional Elective Courses, OEC –Open Elective Course, AEC –Ability Enhancement Courses. INT –Internship, L–Lecture, T–Tutorial, P-Practical/Drawing, S–SelfStudyComponent, CIE: Continuous Internal Evaluation, SEE: Semester End Examination</p>
<p>AICTE activity Points: In case students fail to earn the prescribed activity Points, the Eighth semester Grade Card shall be issued only after earning the required activity Points. Students shall be admitted for the award of the degree only after the release of the Eighth semester Grade Card. Activity points of the students who have earned the prescribed AICTE activity Points shall be sent to the University along with the CIE marks of 8th semester. In case of students who have not satisfied the AICTE activity Points at the end of the eighth semester, the column under activity Points shall be marked NSAP (Not Satisfied Activity Points).</p>
<p>TECHNICAL SEMINAR(21XXS81): The objective of the seminar is to inculcate self-learning, face the audience confidently, enhance communication skill, involve in group discussion, and present and exchange ideas. Each student, under the guidance of a Faculty, shall choose, preferably, a recent topic of his/her interest relevant to the program of Specialization.</p> <ul style="list-style-type: none"> • Carryout literature survey, systematically organize the seminar content. • Prepare the report with own sentences, avoiding a cut and paste act. • Type the matter to acquaint with the use of Micro-soft equation and drawing tools or any such facilities. • Present the seminar topic orally and/or through PowerPoint slides. • Answer the queries and involve in debate/discussion. • Submit a typed report with a list of references. <p>The participants shall take part in the discussion to foster a friendly and stimulating environment in which the students are motivated to reach high standards and become self-confident.</p> <p>Evaluation Procedure: The CIE marks for the seminar shall be awarded (based on the relevance of the topic, presentation skill, participation in the question and answer session, and quality of report) by the committee constituted for the purpose by the Head of the Department. The committee shall consist of three teachers from the department with the senior-most acting as the Chairman.</p> <p>Marks distribution for CIE of the course: Seminar Report: 50 marks Presentation skill: 25 marks Question and Answer: 25 marks. ■</p>
<p>PROJECT WORK (21XXP75): The objective of the Project work is- To encourage independent learning and the innovative attitude of the students. To develop interactive, communication, organization, time management, and presentation skills. To impart flexibility and adaptability. To inspire independence and team working. To expand intellectual capacity, credibility, judgment, intuition. To adhere to punctuality, setting and meeting deadlines. To instill responsibilities to oneself and others. To train students to present the topic of project work in a seminar without any fear, face the audience confidently, enhance communication skills, involve in group discussion to present and exchange ideas.</p> <p>CIE procedure for Project Work: (1) Single discipline: The CIE marks shall be awarded by a committee consisting of the Head of the concerned Department and two senior faculty members of the Department, one of whom shall be the Guide.</p>

The CIE marks awarded for the project work, shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

(2) Interdisciplinary: Continuous Internal Evaluation shall be group-wise at the college level with the participation of all guides of the college. Participation of external guide/s, if any, is desirable. The CIE marks awarded for the project work, shall be based on the evaluation of project work Report, project presentation skill, and question and answer session in the ratio 50:25:25. The marks awarded for the project report shall be the same for all the batch mates.

Professional Elective Courses-II		Professional Elective Courses-III	
Subject Code	Title	Subject Code	Title
21XX721	Advanced Design of RCC and Steel Structures	21XX731	Earthquake Engineering
21XX722	Advanced Foundation Engineering	21XX732	Ground Improvement Techniques
21XX723	Pavement Materials and Construction	21XX733	Pavement Design
21XX724	Solid Waste Management	21XX734	Air Pollution and Control
21XX725	Design of Hydraulic Structures	21XX735	Open Channel Hydraulics
21XX726	Repair and Rehabilitation of Structures	21XX736	Design of Masonry Structures

Open Elective Courses-II		Ability Enhancement Courses-VI Online Course list	
Subject Code	Title	Subject Code	Title
21XX741	Finite Element Method	21XX761	
21XX742	Numerical Methods and Applications	21XX762	
21XX743	Environmental Protection and Management	21XX763	
21XX744	Intelligent Transport System	21XX764	Branch Specific Course
21XX745	Course on NCC	21XX765	Branch Specific Course