

**DEPARTMENT OF CIVIL ENGINEERING****Academic Year 2024-25****Semester- EVEN****Structure of Course**

Class	TY Civil semester VI
Course Code and Course Title	BTCVC601, Design of RC Structures
Prerequisite/s	Mechanics of Solid
Teaching Scheme: Lecture/Tutorial	02/01
Credits	4
Evaluation Scheme: CA/MSE/ESE	20/20/60

Course Outcomes:

Course Outcomes (COs): After successful completion of this course, the student will be able to:		Blooms Level
BTCVC601_1	Discuss to the various design philosophies used for design of reinforced concrete.	L2
BTCVC601_2	Analyze and design the reinforced concrete slab using limit state and working state method.	L4
BTCVC601_3	Analyze and design the reinforced concrete beam using limit state and working state method.	L4
BTCVC601_4	Analyze and design the reinforced concrete column using limit state and working state method.	L4

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes														
	1	2	3	4	5	6	7	8	9	10	1	12	PSO	PSO	PSO
BTCVC601	2						1	1				2	1	2	2
BTCVC601	3	3	2			2	2	1		1		2	1	2	2
BTCVC601	3	3	2			2	2	1		1		2	1	2	2
BTCVC601	3	3	2			2	2	1		1		2	1	2	2
Total	11	9	6			6	7	4		3		8	4	8	8
Average	2.7	3.0	2.0			2.0	1.7	1.0		1.0		2.0	1.00	2.00	2.00
BTCVC601	3	3	2			2	2	1		1		2	1	2	2

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Course CoordinatorVerified by
Academic CoordinatorApproved by
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Civil Engineering

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**Department of Civil Engineering****Academic Year 2024-25****Semester- EVEN****Structure of Course**

Class	TY. Sem. – VI
Course Code and Course Title	BTCVC602, Foundation Engineering
Prerequisite/s	Geotechnical Engineering
Teaching Scheme: Lecture/Tutorial	03/01
Credits	4
Evaluation Scheme: CA/MSE//ESE	20/20/60

Course Outcomes:

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTCVC602_1	Predict soil behavior under the application of loads and come up with appropriate solutions to foundation design queries.	L3
BTCVC602_2	Analyze the stability of slope by theoretical and graphical methods.	L4
BTCVC602_3	Analyze the results of in-situ tests and transform measurements and associated uncertainties into relevant design parameters.	L4
BTCVC602_4	Develop the concepts of allowable stress design, appropriate factors of safety, margin of safety, and reliability.	L3

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2	PSO3
BTCVC602_1	3	3	3	2			2					3	2		2
BTCVC602_2	3	3	3	2			2					3	2		2
BTCVC602_3	3	3	3	2			2					3	2		2
BTCVC602_4	3	3	3	2			2					3	2		2
Total	12	12	12	8			8					12	8		8
Average	3	3	3	2			2					3	2		2
BTCVC602	3	3	3	2			2					3	2		2


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Department of Civil Engineering Academic Year 2024-25

Semester- EVEN

Structure of Course

Class	T.Y. Sem. -V
Course Code and Course Title	BTCVC603 Transportation Engineering
Prerequisite/s	Basic Civil Engineering
Teaching Scheme: Lecture	03
Credits	03
Evaluation Scheme: CA / MSE / ESE	20/20/60

Course Outcomes:

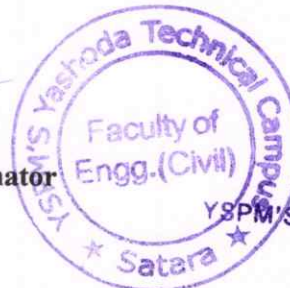
Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTCVC603_1	Explain various types of transportation systems and their history of the development.	L3
BTCVC603_2	Construct highway geometrics.	L3
BTCVC603_3	Determine the quality of Materials used for pavements.	L3
BTCVC603_4	Interpret to various types of pavements	L3
BTCVC603_5	Select the pavements by considering various aspects associated with traffic safety measures.	L4

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2	PSO3
BTCVC603_1	3											3	2	2	2
BTCVC603_2	3	2	2									2	2	3	2
BTCVC603_3	3	2										2	2	3	2
BTCVC603_4	3	2										2	2	2	2
BTCVC603_5	3	2	2									3	2	2	2
Total	15	8	4									12	10	12	10
Average	3	2	2									2.4	2	2.4	2
BTCVC 603	3	2	2									2.5	2	2.5	2

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**DEPARTMENT OF CIVIL ENGINEERING****Academic Year 2024-25****Semester- EVEN**Structure of Course

Class	TY Civil semester VI
Course Code and Course Title	BTCVPE604F, Structural Audit
Prerequisite/s	Concrete Technology, Material Testing & Evaluation
Teaching Scheme: Lecture	3
Credits	3
Evaluation Scheme: CA/MSE/ESE	20/20/60

Course Outcomes:

Course Outcomes (COs):		Blooms Level
After successful completion of this course, the student will be able to:		
BTCVVC604F_1	Summarize the knowledge of Bye laws, procedure of Structural audit and study the typical problems in structures.	L5
BTCVVC604F_2	Examine of causes and types of deterioration in structures.	L3
BTCVVC604F_3	Develop skills for use of various Non-destructive tests required during auditing of structures.	L3
BTCVVC604F_4	Judge strength evaluation of existing structures.	L3
BTCVVC604F_5	Explain legal procedure to conduct structural audits.	L3
BTCVVC604F_6	Prepare a Structural audit report.	L3

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes												PSO1	PSO2	PSO3
	1	2	3	4	5	6	7	8	9	10	11	12			
BTCVPE604F_1	2					2	3	2				3	1		1
BTCVPE604F_2	2					2	2					3	2	2	
BTCVPE604F_3	2	3			2							2		1	1
BTCVPE604F_4	2	2				2	2					2	2		
BTCVPE604F_5	2	2				2	2	2			2	3		1	
BTCVPE604F_6	2	2				2	2		2	2	2	2	1	1	
Total	12	9			2	10	11	4	2	2	4	15	6	5	2
Average	2.0	2.25			2.00	2.00	2.20	2.00	2.00	2.00	2.00	2.50	1.50	1.25	1.00
BTCVPE604F	2	2			2	2	2	2	2	2	2	3	2	1	1

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**DEPARTMENT OF CIVIL ENGINEERING****Academic Year 2024-25****Semester- EVEN**Structure of Course

Class	TY Civil semester VI
Course Code and Course Title	BTCVOE605D Composite Materials
Prerequisite/s	Basic Civil Engineering, Concrete Technology, Material Testing & Evaluation
Teaching Scheme: Lecture	3
Credits	3
Evaluation Scheme:	20/20/60

Course Outcomes:

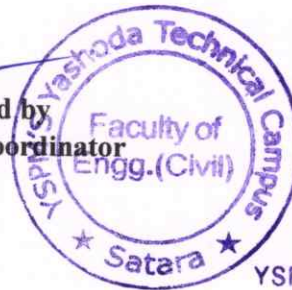
Course Outcomes (COs):		Blooms Level
Upon successful completion of this course, the student will be able to:		
BTCVOE605D_1	Describe fundamental knowledge in mechanical analysis.	L2
BTCVOE605D_2	Illustrate design of structures made of composite materials.	L3
BTCVOE605D_3	Discuss suitable materials in relation with the project.	L2
BTCVOE605D_4	Illustrate Fabrication methods of composite materials.	L3

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2	PSO3
BTCVOE605D_1	2	2								1		2		2	2
BTCVOE605D_2	2	2								1				2	2
BTCVOE605D_3	2	2	2							1				2	2
BTCVOE605D_4	2									1					
Total	8	6	2							4		2		6	6
Average	2	2	2							1		2		2	2
BTCVOE605D	2	2	2							1		2		2	2

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**DEPARTMENT OF CIVIL ENGINEERING****Academic Year 2024-25****Semester- EVEN****Structure of Course**

Class	TY Civil semester VI
Course Code and Course Title	BTHM606 Indian Constitution
Prerequisite/s	--
Teaching Scheme: Lecture	2
Credits	Audit
Evaluation Scheme: CA	50

Course Outcomes:

Course Outcomes (COs):		Blooms Level
Upon successful completion of this course, the student will be able to:		
BTHM606_1	Explain about salient features of the Constitution of India	L3
BTHM606_2	Discuss fundamental rights, duties and federal structure of Constitution of India	L2
BTHM606_3	Explain about provisions of role responsibilities of State administration in Constitution of India	L3
BTHM606_4	Describe about provisions of role responsibilities of Local administration in Constitution of India	L2
BTHM606_5	Summarize about role and functioning of election commission under constitution of India	L5


Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes												PSO1	PSO2	PSO3	
	1	2	3	4	5	6	7	8	9	10	11	12				
BTHM606_1						1		1					2			
BTHM606_2						1		1					2		1	
BTHM606_3						1		1					1		1	
BTHM606_4						1		1					1			
BTHM606_5						1		1					1			
Total						5		5					7		2	
Average						1		1					1.4		1	
BTHM606						1		1					1		1	


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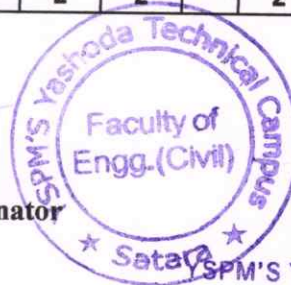
Class	TY Civil semester V
Course Code and Course Title	BTCVC607, SDD of RC Structures Lab
Prerequisite/s	Mechanics of Solid, Design of RC Structures
Teaching Scheme: Lecture/Tutorial/Practical	02
Credits	1
Evaluation Scheme: CA/ESE	20/30

Course Outcomes:

Course Outcomes (COs):		Blooms
BTCVL607_1	Calculate different loads and perform load combination analysis for different RC buildings as per codal provisions.	L3
BTCVL607_2	Apply the principles, procedures and current code requirements for the design of RC beams, columns, slab, Footings.	L3
BTCVL607_3	Work in a group for design oriented task related to project.	L2
BTCVL607_4	Develop skills of technical report writing and comprehension of results.	L2
BTCVL607_5	Apply the knowledge in real life problems.	L2

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2	PSO3
BTCVL607_1	3	2						2	2	2		2	2	2	2
BTCVL607_2	2	2			2	2		2	3	2		2	2	2	2
BTCVL607_3	3	2				2	2	2	2	2		2		2	1
BTCVL607_4	2	2			2	2		2	2	2		2		2	
BTCVL607_5									2	2		2	2	1	1
Total	10	8			4	6	2	8	11	10		10	6	8	5
Average	2.50	2.00			2.00	2.00	2.00	2.00	2.20	2.00		2.00	2.00	2.00	1.67
BTCVL607	3	2			2	2	2	2	2	2		2	2	2	2

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**Department of Civil Engineering**

Academic Year 2024-25

Semester- EVEN

Structure of Course

Class	T.Y. Sem. -VI
Course Code and Course Title	BTCVL608 Transportation Engineering LAB
Prerequisite/s	Basic Civil Engineering
Teaching Scheme: Practical	02
Credits	01
Evaluation Scheme: CA / ESE	20/30

Course Outcomes:

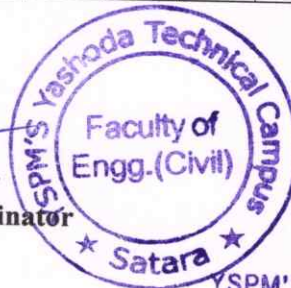
Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTCVL608_1	Examine tests on various road construction materials.	L3
BTCVL608_2	Construct CBR tests on local soils to determine subgrade properties needed for roadways.	L3
BTCVL608_3	Communicate effectively about laboratory work in both orally and writing	L2
BTCVL608_4	Work effectively in team to perform and findings the results.	L2

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes															
	1	2	3	4	5	6	7	8	9	10	11	12	PSO1	PSO2	PSO3	
BTCVL 608.1	3	2										2	2	2	2	
BTCVL 608.2	3	2	2									2	2	2	2	
BTCVL 608.3									2	3		2				
BTCVL 608.4									3	3		2		2	2	
Total	6	4	2						5	6		8	4	6	6	
Average	3	2	2						2.5	3		2	2	2	2	
BTCVL 608	3	2	2						3	3		2	2	2	2	

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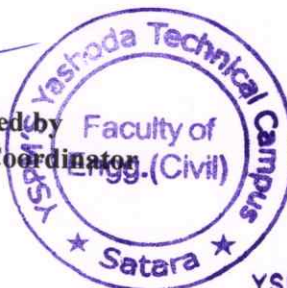
Class	TY Civil semester V
Course Code and Course Title	BTCVP609, Mini Project
Prerequisite/s	Basic Civil Engineering
Teaching Scheme: Practical	02
Credits	1
Evaluation Scheme: CA/ESE	20/30

Course Outcomes:

Course Outcomes (COs): After successful completion of this course, the student will be able to:		Blooms Level
BTCVP609_1	Identify thrust area in civil engineering and finalize problem statement.	L2
BTCVP609_2	Prepare methodology and give conclusion on the basis of results.	L3
BTCVP609_3	Practice as an individual or in a team in development of technical projects.	L2
BTCVP609_4	Apply project management skills	L3
BTCVP609_5	Summarize technical information by means of report and presentation.	L5

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes												PSO1	PSO2	PSO3
	1	2	3	4	5	6	7	8	9	10	11	12			
BTCVP609_1	2	2		2			2	1				2	1	2	1
BTCVP609_2	2	1	2	2	2		1	1				2	1	2	2
BTCVP609_3	2	1				2						2	2	2	2
BTCVP609_4						2			2	2	2	2	2		2
BTCVP609_5										3	3	2			1
Total	6	4	2	4	2	4	2	1	5	5	2	10	6	6	4
Average	2.00	1.33	2.2	2.00	2.00	2.00	2.00	1.00	2.50	2.50	2.00	2.00	1.50	2.00	2.00
BTCVP609	2	1	2	2	2	2	2	1	3	3	2	2	2	2	2

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**Department of Civil Engineering**
Academic Year 2024-25**Semester- EVEN****Structure of Course**

Class	TY. Sem. – VI
Course Code and Course Title	BTCVP610 Field Training/Internship
Prerequisite/s	Site/Industrial Visit
Teaching Scheme:	00
Credits	1
Evaluation Scheme: ESE	50

Course Outcomes:

Course Outcomes (COs): Upon successful completion of this course, the student will be able to:		Blooms Level
BTCVP610_1	Observe the various construction activities and its significance.	L2
BTCVP610_2	Identify the various construction materials and its properties on construction site.	L2
BTCVP610_3	Practice as an individual or as a team member to complete the construction projects.	L3
BTCVP610_4	Analyse essential technical information, working drawings, material quantity and method to complete the construction work.	L4

Mapping of CO's with PO's and PSO's:

Course Outcomes	Program Outcomes														
	1	2	3	4	5	6	7	8	9	10	11	12	PSO 1	PSO 2	PS O3
BTCVP610_1	3	3	2		2			2	2	2	2	2	2	2	2
BTCVP610_2	3	3	2		2			2	2	2	2	2	2	2	2
BTCVP610_3	3	3	2		2			2	2	2	2	2	2	2	2
BTCVP610_4	3	3	2		2			2	2	2	2	2	2	2	2
Total	12	12	8		8			8	8	8	8	8	8	8	8
Average	3	3	2		2			2	2	2	2	2	2	2	2
BTCVP610	3	3	2		2			2	2	2	2	2	2	2	2


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