



Prasad V. Potluri Siddhartha Institute of Technology

(Autonomous)

Approved by AICTE and Affiliated to JNTUK

Accredited by NAAC: A+

All UG programs accredited by NBA, ISO 9001-2015 Certified Institute
Vijayawada, Andhra Pradesh, India.

DEPARTMENT OF CIVIL ENGINEERING

Agenda of meeting

1. To finalize the 3rd and final year course structure and syllabus inclusive open electives, Professional Electives, Honors Subjects and Minor subjects of PVP 20 regulations

Minutes of BOS held on 30/04/2022 at 9.30a.m

1. Members discussed in detail and approved without any modification the syllabus and course structure of 3rd and final year subjects, open electives, professional electives, honors subjects and Minors subjects of PVP20 regulations.
2. In honors total 16 new subjects at the level of PG are introduced in four POOLs and approved the number of subjects and its syllabus without any modification.
3. In General minors, six new subjects and its detailed syllabus was approved.
4. In HS elective category, eight subjects and its detailed syllabus was approved.
5. In Profession electives category, five professional electives containing 20 subjects detailed syllabus is approved.
6. In Open electives category, four open electives consisting 32 subjects and its detailed syllabus was approved.
7. In conclusion, members appreciated the efforts made by the department faculty for effective preparation of detailed syllabus.

K. Naveen Reddy
30/4/2022

Professor & Head
Dept. of Civil Engineering
PVP Siddhartha Institute of Technology
Kandamuri, VIJAYAWADA-520 007



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DEPARTMENT OF CIVIL ENGINEERING

Board of Studies Committee Meeting on 30-4-2022 ✓

S.No.	Name of the Committee Member	Designation	Signature
1	Dr. K. Ramesh	HOD & Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
2	Dr.D.Rama Seshu	Professor in Civil Engineering, National Institute of Technology, Warangal	Attended in Google meet
3	Dr.K.Ramu	Professor in Civil Engineering, JNTUK, kakinada	Attended in Google meet
4	Dr.C.N.V.Satyanarayana Reddy	Professor and Head in Civil Engineering, Andhra University college of Engineering Vizag.	Attended in Google meet
5	Er.K.Venkatraman	Head- Technical Services,Ultra tech cements limited. Vijayawada	Attended in Google meet
6	Mr. Bellamkonda Krishna Siva Kumar	Management Trainee, Valuation department, HDFC PVT. Ltd., Vijayawada	Attended in Google meet
7	Dr. A. Adi Lakshmi	Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
8	Dr. V. Jagadish	Associate Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
9	Dr.K.Shyam Prakash	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
10	Dr.Krishanu Mukherjee	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
11	Mr. K.V. Subash	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
12	Ms. G.V. Ratna Kumari	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
13	Ms. K. Prasanthi	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
14	Ms. K. Divya	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
15	Ms. M.Durga Prasanna	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
16	Mr. V.Preetham	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
17	Mr. P.S.V.Bharath	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet
18	Ms.K. Anupama	Asst. Prof. in CE, PVPSIT, Vijayawada	Attended in Google meet

K. Ramesh

Professor
Dept. of Civil Engineering

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DEPARTMENT OF CIVIL ENGINEERING

PVP20 SYLLABUS

DEPARTMENT OF CIVIL ENGINEERING

PVP20 COURSE STRUCTURE

I B.TECH - I - SEMESTER

S.No.	Course Code	Course Title	L	T	P	C	Internals	Externals	Total
1	20HS1101	Communicative English I	3	0	0	3	30	70	100
2	20BS1101	Calculus and Linear Algebra	3	0	0	3	30	70	100
3	20BS1104	Applied Physics	3	0	0	3	30	70	100
4	20ES1101	Basic Electrical & Electronics Engineering	3	0	0	3	30	70	100
5	20HS1151	Communicative English I Lab	0	0	3	1.5	15	35	50
6	20BS1153	Applied Physics Lab	0	0	3	1.5	15	35	50
7	20ES1151	Basic Electrical & Electronics Engineering Lab	0	0	3	1.5	15	35	50
8	20ES1153	Basic Workshop	1	0	4	3	15	35	50
TOTAL			13	0	13	19.5	180	420	600

K. Nagesh

Professor

Dept. of Civil Engineering

PVP Siddhartha Institute of Technology

Kanuru, VIJAYAWADA

I B.TECH - II- SEMESTER

Course Code	Course Title	L	T	P	C	Internals	Externals	Total
20HS1201	Communicative English II	3	0	0	3	30	70	100
20BS1201	Differential Equations and Vector Calculus	3	0	0	3	30	70	100
20BS1206	Chemistry of Materials	3	0	0	3	30	70	100
20ES1203	Problem Solving & Programming with Python	3	0	0	3	30	70	100
20ES1204	Engineering Graphics	1	0	4	3	30	70	100
20HS1251	Communicative English II Lab	0	0	3	1.5	15	35	50
20BS1254	Chemistry of Materials Lab	0	0	3	1.5	15	35	50
20ES1254	Problem Solving & Programming with Python Lab	0	0	3	1.5	15	35	50
20MC1201	Life Sciences for Engineers	2	0	2	0	30	70	100
TOTAL		15	0	15	19.5	225	525	750

II B.TECH - I - SEMESTER

Course Code	Course Title	L	T	P	C	Internals	Externals	Total
20BS1301	Numerical and Statistical Methods	3	0	0	3	30	70	100
20BS1304	Applied Mechanics	3	0	0	3	30	70	100
20ES1301	Construction Materials & Concrete Technology	3	0	0	3	30	70	100
20CE3301	Mechanics of Fluids	3	0	0	3	30	70	100
20CE3302	Surveying	3	0	0	3	30	70	100
20MC1301	Environmental Science	2	0	0	0	30	70	100
20ES1351	Construction Materials & Concrete Technology Lab	0	0	3	1.5	15	35	50
20CE3351	Computer aided drawing	0	0	3	1.5	15	35	50
20CE3352	Surveying Lab	0	0	3	1.5	15	35	50
20SO8351	C Programming Lab	1	0	2	2		50	50
TOTAL		18	0	11	21.5	225	575	800

K. Nee
 Professor 801
 Dept. of Civil Engg
 PVP Siddhartha Institute

II B.TECH - II - SEMESTER

No.	Course Code	Course Title							
			L	T	P	C	Internals	External s	Total
1	20CE3401	Environmental Engineering	3	0	0	3	30	70	100
2	20CE3402	Geotechnical Engineering	3	0	0	3	30	70	100
3	20CE3403	Hydraulics and Hydraulic machines	3	0	0	3	30	70	100
4	20CE3404	Mechanics of Solids	3	0	0	3	30	70	100
5	20CE3405	Water Resources Engineering	3	0	0	3	30	70	100
6	20MC1401	Universal Human values	2	0	0	0	30	70	100
7	20CE3451	Geotechnical Engineering Lab	0	0	3	1.5	15	35	50
8	20CE3452	Mechanics of Fluids Lab	0	0	3	1.5	15	35	50
9	20CE3453	Mechanics of Solids Lab	0	0	3	1.5	15	35	50
10	20SO8451	Advanced Surveying using Total Station Lab	1	0	2	2		50	50
TOTAL			18	0	11	21.5	225	575	800

III B.TECH - I - SEMESTER

S.No.	Course Code	Course Title							
			L	T	P	C	Internals	Externals	Total
1	20CE3501	<u>Design of Reinforced Concrete Structures</u>	3	0	0	3	30	70	100
2	20CE3502	<u>Highway Engineering</u>	3	0	0	3	30	70	100
3	20CE3503	<u>Structural Analysis</u>	3	0	0	3	30	70	100
4	20MC1501	<u>Constitution of India</u>	3	0	0	0	30	70	100
5		<u>Open Elective - I</u>	3	0	0	3	30	70	100
6		<u>Open Elective - II</u>	3	0	0	3	30	70	100
7	20CE3551	<u>Environmental Engineering Lab</u>	0	0	3	1.5	15	35	50
8	20CE3552	<u>Highway Engineering Lab</u>	0	0	3	1.5	15	35	50
9	20SO8551	<u>Computer aided Building Drawing Using AUTO CAD</u>	1	0	2	2		50	50
10	20CE3571	<u>Summer Internship 6 weeks duration (Mandatory) after second year (to be evaluated during V semester)</u>	0	0	0	1.5	0	50	50
			19	0		21.5	210	590	800

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Professor
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PVP Siddhartha In

III B.TECH - II - SEMESTER

S.No.	Course Code	Course Title	L	T	P	C	Internals	Externals	Total
1	20ES1601	AI Tools	3	0	0	3	30	70	100
2	20CE3601	Design of Steel Structures	3	0	0	3	30	70	100
3	20CE3602	Estimation and Costing	3	0	0	3	30	70	100
Professional Elective - I									
4	20CE4601A	Repair and Rehabilitation of Structures	3	0	0	3	30	70	100
	20CE4601B	Foundation Engineering							
	20CE4601C	Traffic Engineering							
	20CE4601D	Pollution Prevention and Management							
Professional Elective - II									
5	20CE4602A	Advanced Structural Analysis	3	0	0	3	30	70	100
	20CE4602B	Pavement Analysis and Design							
	20CE4602C	Hydropower Engineering							
	20CE4602D	Sanitary Engineering							
6	20ES1651	AI Tools Lab	0	0	3	1.5	15	35	50
7	20CE3651	Computer applications in Civil Engineering Lab	0	0	3	1.5	15	35	50
8	20CE3661	Minor Project	0	0	3	1.5	15	35	50
9	20SO8651	Soft Skills Lab	1	0	2	2		50	50
TOTAL			16	0	11	21.5	195	505	700

IV B.TECH - I - SEMESTER

S.No.	Course Code	Course Title	L	T	P	C	Internals	Externals	Total
1	<u>Hobbies and Sciences Elective</u>								
	1.	Construction Management	3	0	0	3	30	70	100
	2.	Industrial Engineering Management							
	3.	Managerial Economics and Financial Accountancy							
	4.	Human Resources management							
	5.	Entrepreneurship Management							
	6.	Organisational Behaviour							
	7.	Project Management							
	8.	Management Science							
Professional Elective - III									
2	20CE4701A	Advanced Design of Reinforced Concrete Structures	3	0	0	3	30	70	100
	20CE4701B	Advanced Foundation Engineering							
	20CE4701C	Remote Sensing and Geographic Information Systems							
	20CE4701D	Open Channel Hydraulics							
Professional Elective - IV									
3	20CE4702A	Advanced Design of Steel Structures	3	0	0	3	30	70	100
	20CE4702B	Railway and Harbor Engineering							
	20CE4702C	Irrigation Management							
	20CE4702D	Solid Waste Management							
Professional Elective - V									
4	20CE4703A	Prestressed Concrete Structures	3	0	0	3	30	70	100
	20CE4703B	Ground Improvement Techniques							
	20CE4703C	Urban Transportation Planning							
	20CE4703D	Watershed Management							
5		Open Elective - III	3	0	0	3	30	70	100
6		Open Elective - IV	3	0	0	3	30	70	100
7	20SQ8751	Computer aided Project Management Lab	1	0	2	2		50	50
8	20CE3771	Summer Internship 6 weeks duration (Mandatory) after second year (to be evaluated during VII semester)	0	0	0	3	0	50	50
TOTAL			19	0	2	23	180	520	700

K. Neelesh

30/4/2022

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IV B.TECH - II - SEMESTER

S.No.	Course Code	Course Title	L	T	P	C	Internals	External s	Total
1	20CE3861	<u>Project Work, Seminar and Internship in Industry (6 months)</u>	0	0	0	12	60	140	200
Total Credits for all semesters for Regular B.Tech = 160 Total Credits for all semesters for B.Tech(Honors) = 180 Total Credits for all semesters for B.Tech(Minor) = 180									

OPEN ELECTIVES

1	Open Elective - I: Air Pollution and Control Electrical Safety Design Thinking Programming With C Cyber Law Logistics and Supply chain Management Sensor Technologies Electronics Instrumentation	3	0	0	3	30	70	100
2	Open Elective - II: Ecology and Environment Energy Management Value Engineering Human factors in Engineering Mechanical Engineering MATLAB Programming TV Engineering Introduction to Database housing and mining Introduction to data structures	3	0	0	3	30	70	100
3	Open Elective - III: Disaster Management and Preparedness Non Conventional Energy Resources Operations Research Management Information Systems Java Programming Fundamentals of Data Science Embedded and Real time systems Probability Theory and Random Process	3	0	0	3	30	70	100
4	Open Elective - IV: Environmental management and Audit Utilization of Electrical Power Mechatronics Robotics Telecommunication Satellite Communications Fundamentals of Artificial Intelligence Database Management Systems	3	0	0	3	30	70	100

K. M.

**B.Tech (HONORS) SUBJECTS IN CIVIL ENGINEERING
(FOR HONORS)**

- The subjects opted for Honors should be Advanced type which are not covered in regular curriculum
- Students have to acquire 16 credits with minimum one subject from each pool
- Concerned BoS can add or delete the subjects as per the decision of the board.
- Pre requisites to be defined by the board for each course.
- Compulsory MOOC/NPTEL Courses for 04 credits (02 courses@ 2 credits each)

SNo	Course code	Course Title	L	T	P	C	I	E	T	Prerequisite
POOL 1										
1		Earthquake Engineering	3	1	0	4	30	70	100	20CE3501
2		Computational Structural Mechanics	3	1	0	4	30	70	100	20CE3503
3		Bridge Engineering	3	1	0	4	30	70	100	20CE3501
4		Storage Structures	3	1	0	4	30	70	100	20CE3501
POOL 2										
1		Geosynthetics and Reinforced Soil Structures	3	1	0	4	30	70	100	20CE3402
2		Rock Mechanics	3	1	0	4	30	70	100	20CE3402
3		Soil Dynamics and Machine Foundations	3	1	0	4	30	70	100	20CE3402
4		Environmental Geotechniques	3	1	0	4	30	70	100	20CE3402
POOL 3										
1		Sustainable Transportation	3	1	0	4	30	70	100	20CE3502
2		Transport Economics and Project Appraisal	3	1	0	4	30	70	100	20CE3502
3		Intelligent Transportation system	3	1	0	4	30	70	100	20CE3502
4		Advanced Pavement Materials	3	1	0	4	30	70	100	20ES1301
POOL 4										
1		Industrial Waste Management	3	1	0	4	30	70	100	20CE3401
2		Advanced Concrete Technology	3	1	0	4	30	70	100	20ES1301
3		Safety Management in Construction	3	1	0	4	30	70	100	20ES1301
4		Green and Smart Buildings	3	1	0	4	30	70	100	20ES1301

GENERAL MINOR TRACKS (FOR OTHER DEPARTMENT STUDENTS)

- The student can opt any 4 subjects from each pool.
- Concerned BoS can add or delete the subjects as per the decision of the board.
- Pre requisites to be defined by the board for each course.
- Compulsory MOOC/NPTEL Courses for 04 credits (02 courses@ 2 credits each)

Course code	Course Title	L	T	P	C	I	E	T
	Solid Mechanics	3	1	0	4	30	70	100
	Basic Mechanics of Fluids	3	1	0	4	30	70	100
	Basic Surveying	3	1	0	4	30	70	100
	Analysis of Structures	3	1	0	4	30	70	100
	Soil Mechanics	3	1	0	4	30	70	100
	Transportation Engineering	3	1	0	4	30	70	100

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