CHITKARA UNIVERSITY

HIMACHAL PRADESH

NAAC ACCREDITED

Report on PO Attainment

Bachelor of Engineering Batch 2018

Department of Civil Engineering

Report on PO Attainment

Batch 2018

Department of Civil Engineering

Dated: 27/07/2022

Overview

An outcome is a result of learning that reveals what the student should be able to do at the end of a course. Outcome-based curriculum is a performance-based education system which is crucial in determining the type of graduates we want. In this approach, the desired educational outcomes should be clearly specified. Having an unequivocal outcome facilitates the nature of course offered, its content and also the teaching plans. Constructive alignment is a principle used for devising teaching and learning activities and assessment tasks that directly address the course outcomes (COs) intended. The outcome-based approach provides a mechanism to ensure the accountability and quality assurance to an educational programme.

Course mapping shows the educational relationship (Level of Learning achieved) between Course Outcomes and Program Outcomes for a Course. The result strongly indicates whether the students are able to achieve the course learning objectives. The method can be used for any course and is a good way to evaluate a course syllabus.

The below mentioned steps shall address the procedure for assessing the percentage achievement of Program Outcomes.

Program Outcome

The Program Outcomes for the Civil Engineering Program are the following:

PO-01: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.

PO-02: Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

PO-03: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.

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PO-04: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

PO-05: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex.

PO-06: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal, and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO-07: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO-08: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO-09: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO-010: Communicate effectively on complex engineering activities with the engineering community and with the society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO-011: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO-012: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Course Outcomes mapping with Program Outcomes:

The course outcomes were mapped with the program outcomes of Department of Civil Engineering on the scale of High, Medium and Low. Thereafter, the mapped values were allocated with weights i.e., High: 3; Medium: 2; and Low: 1. The subject wise result was compiled for 1st, 2nd, 3rd, 4th, 5th , 6th , 7th & 8th semester.

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PO Attainment of subjects: B.E. Civil Engineering

Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
GEL4101	-	-	-	-	-	-	-	-	-	-	-	-
ME102	94	94	94	-	-	-	94	-	-	94	-	94
PH101	90	90	-	-	-	90	-	-	-	-	-	90
ME153	100	100	-	-	-	-	100	-	-	100	-	100
PH103	99	99	-	99	-	99	-	-	-	-	-	99
CL101	86	-	-	86	-	86	-	-	-	-	-	86
AM101	87	87	87	87	87	-	-	87	87	87	-	87
CE101	84	84	-	84	-	-	-	84	84	-	84	84
EE103	89	89	-	89	89	-	-	-	-	-	-	89
CE102	89	89	89	89	-	-	-	-	-	-	-	89
EE104	93	93	-	-	-	-	93	-	-	-	-	93
CE103	90	90	-	90	90	-	90	-	-	-	-	90
AS101	97	97	97	97	-	-	-	-	-	97	-	97
AM102	92	92	-	-	92	-	92	92	92	-	-	92
CE209	89	89	-	89	-	-	89	-	-	-	-	89
CL201	97	-	97	-	-	-	97	-	-	-	-	-
CE201	93	-	-	93	93	-	-	93	93	-	93	93
CE208	100	100	-	100	-	-	-	-	-	-	-	100
CE207	100	100	-	100	-	-	100	-	-	-	-	100
CE206	100	100	-	100	-	-	-	-	-	-	100	100
CE205	100	-	-	100	100	-	-	-	-	100	-	100
HU201	90	-	90	-	-	-	90	-	-	-	-	-
CE204	84	-	-	84	-	-	-	-	-	-	-	84
CE203	94	94	-	94	-	-	-	-	-	-	94	94
CE202	89	-	-	89	89	-	-	89	89	-	89	89
CE211	0	0	-	-	-	0	-	-	-	-	0	0
CE212	84	84	84	84	84	84	84	84	84	84	-	84
AS102	98	98	98	-	-	-	98	-	-	-	-	98
CE213	97	-	-	97	97	-	-	-	-	-	-	97
CS501	96	96	96	96	-	96	-	-	-	-	-	96
CE216	98	-	98	98	-	-	-	-	98	98	-	98
CE217	98	98	98	98	-	-	98	98	-	-	-	98
CE214.	98	98	98	-	98	-	-	98	98	-	-	98
CE301	100	-	100	100	100	-	100	100	100	100	-	100
CE302	100	100	-	100	-	100	-	100	100	100	100	100
CE303	87	87	-	-	87	87	87	87	-	87	-	87
CE304	100	100	-	100	100	-	-	100	100	100	-	100
CE308	100	100	-	-	100	100	-	-	-	-	-	100

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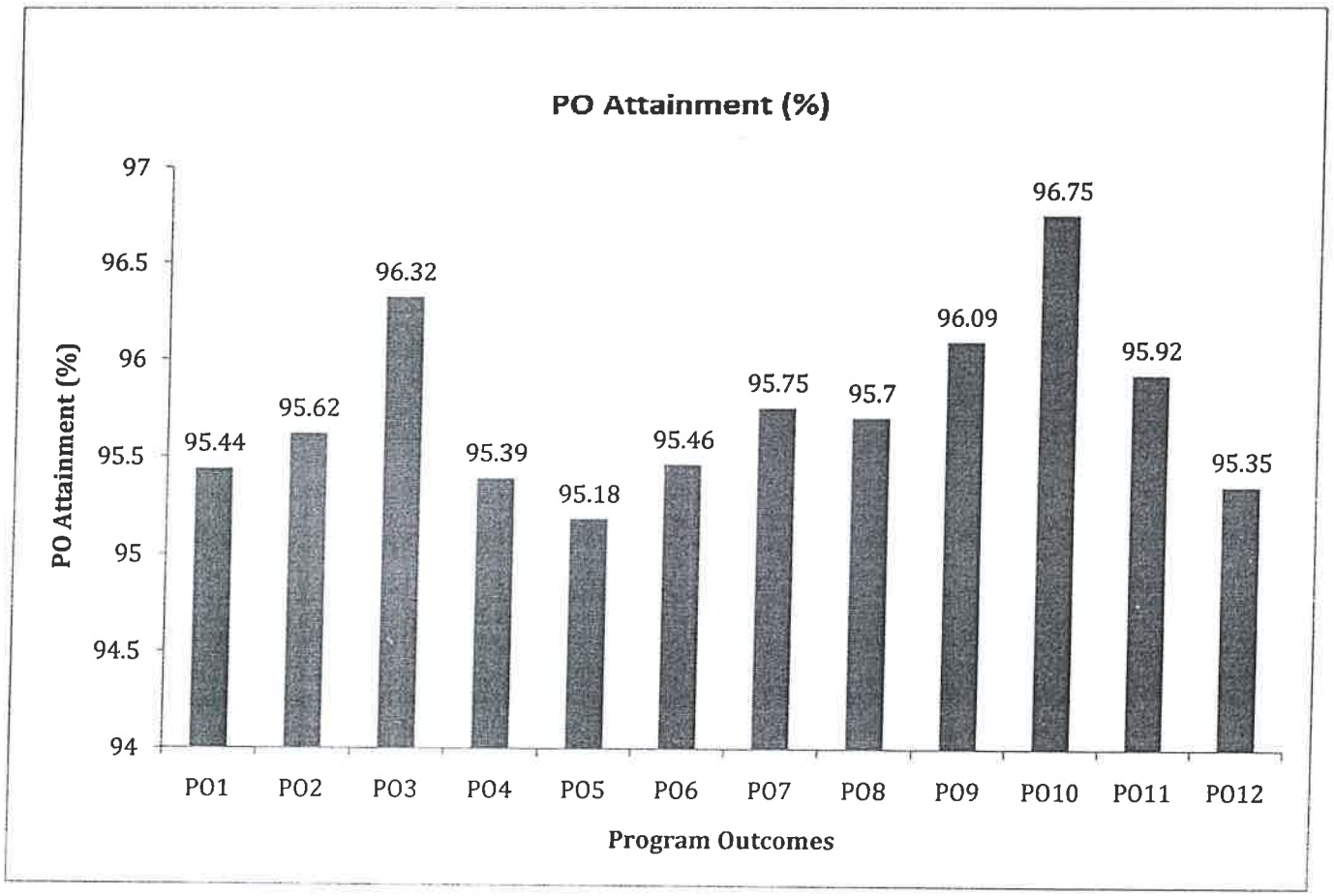
CE307	100	100	-	-	100	-	100	100	100	-	-	100
AS103	100	100	100	-	-	-	100	-	-	-	-	100
CE320	100	100	100	100	100	100	100	100	100	100	100	100
CE308	100	-	100	100	100	-	-	100	100	100	100	100
CE309	96	96	-	96	-	-	96	-	-	96	-	96
CE310	100	100	100	100	-	-	100	-	-	-	-	100
CE311	100	100	-	100	100	-	100	-	-	-	100	100
CE321	100	-	100	100	-	100	100	100	100	100	-	100
AS104	100	-	-	100	-	-	-	100	100	-	-	100
CE404	100	100	100	100	100	100	-	100	100	100	-	-
DM101	98	98	98	-	-	-	98	98	98	98	-	98
CE402	93	93	-	-	93	-	93	93	93	-	93	93
CE401	96	96	96	96	96	-	-	-	-	96	96	96
CE405	100	100	-	100	-	100	-	100	100	-	-	100
CE330	99	99	-	99	-	99	-	99	99	99	99	99
CET 9403	99	99	99	-	99	-	99	99	99	99	99	-
POA	95.44	95.62	96.32	95.39	95.18	95.46	95.75	95.70	96.09	96.75	95.92	95.35

Representation of PO attainment:



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Analysis -

The representation shows that the students of batch 2018 have successfully attained a minimum of 90% in all 12 program outcomes. However, the high attainment i.e., > 90% initiates an urge to re-assess the evaluation strategies being followed and their concurrence with the latest examination reforms for better implementation and outcome achievement in subsequent achieve.

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Department of Civil Engineering

Course Outcome Attainment Report

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Programme *B.E. [Civil Engineering]* Batch *2018*

Subject *Design of Steel Structures* Code *CE303* Semester *5*

- Subject Assessment: *Design of Steel Structures*

#	Tools	Task	Task-Id	Marks	Wt (%)	Weighted Marks (%)
1	Internal	1	11	40	100	40
2	External	1	12	60	100	60

Course Outcome: *Design of Steel Structures*

SNo	Course Outcome	Wt(%)
CO1	Understand and appreciate various aspects of steel construction like different types of steel sections their specifications advantages of steel construction etc	20
CO2	Analyse and design various types of steel connections using rivets bolts and weld to enhance the analytical skills	20
CO3	Design basic elements of a steel building like beam column and column bases etc. for given conditions and loading.	20
CO4	Estimate design loads for a roof truss and then be able to design its various components like top chord members bottom chord members web members purlins etc with focus on employability skills.	20
CO5	Ability to design steel framing system and connections of a building in a team setting	20

CO-PO Map: *Design of Steel Structures*

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Understand and appreciate various aspects of steel construction like different types of steel sections their specifications advantages of steel construction etc	-	M	-	-	-	-	-	-	-	-	-	L
Analyse and design various types of steel connections using rivets bolts and weld to enhance the analytical skills	-	H	-	-	-	M	-	-	-	-	-	-
Design basic elements of a steel building like beam column and column bases etc. for given conditions and loading.	H	-	-	-	-	-	H	H	-	-	-	-
Estimate design loads for a roof truss and then be able to design its various components like top chord members bottom chord members web members purlins etc with focus on employability skills.	-	L	-	-	-	-	-	-	-	-	-	-
Ability to design steel framing system and connections of a building in a team setting	-	-	-	-	H	-	-	-	-	H	-	L

Course Outcome Contribution in Each Question

Tool	Task No.	QNo	Marks	DL	BT Level	Percentage Contribution of Course Oucome
Internal	1	1	40	Easy	Remembering	CO1 [20],CO2 [20],CO3 [20],CO4 [20],CO5 [20],
External	1	1	60	Average	Understanding	CO1 [20],CO2 [20],CO3 [20],CO4 [20],CO5 [20],

-Assessment-Marks: *Design of Steel Structures*

We would consider 40% weightage for Internal Marks and 60% weightage for external marks for calculating attainment level of Student Course Outcome. In case of either only internal or external components, we would consider 100%.

CO1: Understand and appreciate various aspects of steel construction like different types of steel sections their specifications advantages of steel construction etc

#	RollNo	Internal-1[8]	External-1[12]	Total [20]	MO(%)	Scale
1	1811980701	5.4	7.4	12.8	64	3
2	1811983001	5.6	8.4	14	70	3
3	1811983002	3.6	6.4	10	50	2
4	1811983004	5	5.6	10.6	53	2
5	1811983007	5.2	7.2	12.4	62	3
6	1811983008	5	6.2	11.2	56	3
7	1811983009	5.4	8.2	13.6	68	3
8	1811983010	2.4	5.6	8	40	2
9	1811983011	4.6	8.2	12.8	64	3
10	1811983012	5.6	7	12.6	63	3
11	1811983013	4.4	5.2	9.6	48	2
12	1811983014	5	7	12	60	3
13	1811983015	4.6	7.2	12	60	3

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#	RollNo	Internal-1[8]	External-1[12]	Total [20]	MO(%)	Scale
1	1811980701	5.4	7.4	12.8	64	3
2	1811983001	5.6	8.4	14	70	3
3	1811983002	3.6	6.4	10	50	2
4	1811983004	5	5.6	10.6	53	2
5	1811983007	5.2	7.2	12.4	62	3
6	1811983008	5	6.2	11.2	56	2
7	1811983009	5.4	7.8	13.2	66	3
8	1811983010	2.4	5.6	8	40	2
9	1811983011	4.6	6.2	10.8	54	2
10	1811983012	5.6	7	12.6	63	3
11	1811983013	4.4	5.2	9.6	48	2
12	1811983014	5	7	12	60	3
13	1811983015	4.8	7.2	12	60	3
14	1811983016	4.8	6.6	11.4	58	2
15	1811983017	5	7.2	12.2	61	3
16	1811983018	4.2	6.6	10.8	54	2
17	1811983019	5.8	7.6	13.4	67	3
18	1811983022	5.2	7.2	12.4	62	3
19	1811983023	5.4	5.6	11	56	2
20	1811983024	6.2	7.4	13.6	68	3
21	1811983025	4.6	6	10.6	53	2
22	1811983026	6	8.2	14.2	71	3
23	1811983027	5.6	8.2	13.8	69	3
24	1811983029	5	6.8	11.8	60	3
25	1811983031	5.2	7.6	12.8	64	3
26	1811983034	5.6	7	12.6	63	3
27	1811983035	6.2	8	14.2	71	3
28	1811983037	2.8	4.4	7.2	36	1
29	1811983038	5.4	9.2	14.6	73	3
30	1811983021	6	8.2	14.2	71	3

CO Attainment on Scale of 3

2.6

Percentage of Students Scored above 60%

63.33

CO4: Estimate design loads for a roof truss and then be able to design its various components like top chord members bottom chord members web members purlins etc with focus on employability skills.

#	RollNo	Internal-1[8]	External-1[12]	Total [20]	MO(%)	Scale
1	1811980701	5.4	7.4	12.8	64	3
2	1811983001	5.6	8.4	14	70	3
3	1811983002	3.6	6.4	10	50	2
4	1811983004	5	5.6	10.6	53	2
5	1811983007	5.2	7.2	12.4	62	3
6	1811983008	5	6.2	11.2	56	2
7	1811983009	5.4	7.8	13.2	66	3
8	1811983010	2.4	5.6	8	40	2
9	1811983011	4.6	6.2	10.8	54	2
10	1811983012	5.6	7	12.6	63	3
11	1811983013	4.4	5.2	9.6	48	2
12	1811983014	5	7	12	60	3
13	1811983015	4.8	7.2	12	60	3
14	1811983016	4.8	6.6	11.4	58	2
15	1811983017	5	7.2	12.2	61	3
16	1811983018	4.2	6.6	10.8	54	2
17	1811983019	5.8	7.6	13.4	67	3
18	1811983022	5.2	7.2	12.4	62	3
19	1811983023	5.4	5.6	11	56	2
20	1811983024	6.2	7.4	13.6	68	3
21	1811983025	4.6	6	10.6	53	2

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22	1811983026	6	8.2	14.2	71	3
23	1811983027	5.6	8.2	13.8	69	3
24	1811983029	5	6.8	11.8	60	3
25	1811983031	5.2	7.6	12.8	64	3
26	1811983034	5.6	7	12.6	63	3
27	1811983035	6.2	8	14.2	71	3
28	1811983037	2.8	4.4	7.2	36	1
29	1811983038	5.4	9.2	14.6	73	3
30	1811983021	6	8.2	14.2	71	3

CO Attainment on Scale of 3

2.6

Percentage of Students Scored above 60%

63.33

CO5: Ability to design steel framing system and connections of a building in a team setting

#	RollNo	Internal-1[8]	External-1[12]	Total [20]	MO(%)	Scale
1	1811980701	5.4	7.4	12.8	64	3
2	1811983001	5.6	8.4	14	70	3
3	1811983002	3.6	6.4	10	50	2
4	1811983004	5	5.6	10.6	53	2
5	1811983007	5.2	7.2	12.4	62	3
6	1811983008	5	6.2	11.2	56	2
7	1811983009	5.4	7.8	13.2	66	3
8	1811983010	2.4	5.6	8	40	2
9	1811983011	4.6	6.2	10.8	54	2
10	1811983012	5.6	7	12.6	63	3
11	1811983013	4.4	5.2	9.6	48	2
12	1811983014	5	7	12	60	3
13	1811983015	4.8	7.2	12	60	3
14	1811983016	4.8	6.6	11.4	58	2
15	1811983017	5	7.2	12.2	61	3
16	1811983018	4.2	6.6	10.8	54	2
17	1811983019	5.8	7.6	13.4	67	3
18	1811983022	5.2	7.2	12.4	62	3
19	1811983023	5.4	5.6	11	56	2
20	1811983024	6.2	7.4	13.6	68	3
21	1811983025	4.6	6	10.6	53	2
22	1811983026	6	8.2	14.2	71	3
23	1811983027	5.6	8.2	13.8	69	3
24	1811983029	5	6.8	11.8	60	3
25	1811983031	5.2	7.6	12.8	64	3
26	1811983034	5.6	7	12.6	63	3
27	1811983035	6.2	8	14.2	71	3
28	1811983037	2.8	4.4	7.2	36	1
29	1811983038	5.4	9.2	14.6	73	3
30	1811983021	6	8.2	14.2	71	3

CO Attainment on Scale of 3

2.6

Percentage of Students Scored above 60%

63.33

Attainment on Scale of 3

2.60

Percentage Attainment

86.67

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Head of Department
Department of Civil Engineering
School of Engineering & Technology
Chitkara University, Himachal Pradesh

Chitkara University
Programme Outcome Attainment Report (Direct)

CO Attainment - PO Map: B.E. Civil Engineering

Subject	Course Outcome	Score	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
AML5101	Introduce and form matrices to present mathematical solutions in a concise and informative manner. Use matrices to solve the problems of system of linear equations and solve various live problems using matrices.	2.15	-	3	-	2	3	-	-	-	-	-	-	3
PYL5101	After completing this course the students will be able to analyze and solve mathematical problems relating to Gradient Divergence and Curl of scalar and vector field and establish their relationship with propagation of Electromagnetic waves in free space using Maxwells equation.	2.45	-	3	-	-	-	1	-	-	-	-	-	-
EEL5102	Apply knowledge of mathematics science and engineering.	2.56	1	1	-	-	-	-	-	-	-	-	-	-
MEL4102	Understand the fundamentals of engineering drawing and geometrical objects	2.51	3	3	-	-	-	-	-	-	-	-	-	-
HUL2101	Acquire the knowledge disaster management.	2.85	2	2	-	-	-	-	-	-	-	-	-	2
GEL4101	Understand the transnational character of environmental problems and ways of addressing them including interactions across local to global scales.	2.81	-	2	-	-	-	-	-	-	-	-	-	3
PYP1101	Students will be able to co-relate practical knowledge with theoretical studies.	2.87	3	1	-	-	-	-	-	-	-	-	-	-
EEP1102	Get knowledge of various parts of an electrical machine.	3	1	-	-	-	-	-	-	-	-	-	-	2
MEP1102	Identify and implement basic concepts of BIS conventions to sketch Engineering drawing	2.94	3	3	-	-	-	-	-	-	-	-	-	-
AML5101	Find local extreme values of functions of several variables test for saddle points examine the conditions for the existence of absolute extreme values. Solve constraint problems using Lagrange multipliers and solve related application problems.	2.15	3	-	-	-	3	-	-	-	-	-	-	3
PYL5101	The students will be able to differentiate between different types of LASERs and optical fibres their operation advantages and disadvantages and solve related problems and their application in engineering domain	2.45	2	-	-	-	-	-	-	-	-	-	-	2
EEL5102	Identify formulate and solve engineering problems	2.54	3	3	-	-	2	-	-	-	-	-	-	3
MEL4102	Construct the technical letters and different types of scales.	2.43	3	-	-	-	-	-	2	-	-	-	-	-
HUL2101	Understand the vulnerability of ecosystem and infrastructure due to a disaster	2.85	1	-	2	-	-	-	-	2	2	-	-	-
GEL4101	Apply systems concepts and methodologies to analyze and understand interactions between social and environmental processes.	2.81	-	3	-	2	-	-	-	-	-	-	-	-
PYP1101	Students will achieve perfectness in experimental skills	2.87	-	2	-	1	-	-	-	-	-	-	-	-
EEP1102	Conduct speed control of different types of DC motors	3	-	-	-	-	-	-	1	-	-	-	-	-
MEP1102	Create geometric constructions with hand tools.	2.94	3	-	-	-	-	-	2	-	-	-	-	-

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AML5101	Apply the principles of Integral Calculus to solve a variety of practical problems in Engineering and applied Sciences.	2.15	1	-	-	3	3	-	-	-	-	1	-	3
PYL5101	The students will be able to differentiate between characteristics and properties of various magnetic and superconducting materials and establish their applications in engineering disciplines.	2.45	-	2	-	-	-	-	-	-	-	-	-	-
EEL5102	Design a system component or process to meet desired needs within realistic constraints such as economic environmental social political ethical health and safety manufacturability and sustainability	3.00	-	3	-	-	-	-	-	-	-	-	-	3
MEL4102	Develop the ability of drawing a wide range of geometrical figures	2.43	-	-	-	-	-	-	-	-	-	2	-	3
HUL2101	Acquire the knowledge of disaster management Phases.	2.86	-	-	3	-	-	-	-	-	-	1	-	-
GEL4101	Reflect critically about their roles and identities as citizens consumers and environmental actors in a complex interconnected world.	2.87	-	-	-	-	-	-	-	2	2	-	-	-
PYP1101	The study of practical applications will bring more confidence and ability to develop and fabricate engineering and technical equipments.	2.87	-	-	-	-	-	1	-	-	-	-	-	2
EEP1102	Elaborate the characteristics of DC servo motor.	3	3	3	-	-	-	-	-	-	-	-	-	-
MEP1102	Construct orthographic projection and sectional view of a machine part	2.94	-	-	-	-	-	-	-	-	-	2	-	3
AML5101	Synthesize and apply multivariable vector-valued functions their derivatives and integrals to live problems graphically and analytically.	2.10	-	-	-	-	2	-	-	1	1	-	-	2
PYL5101	The students will be able to describe the dual nature of waves and particles in context of Quantum Mechanics and to apply the Schrodinger Wave Equation in solving different physical systems and processes.	2.45	-	1	-	-	-	-	-	-	-	-	-	-
HUL2101	Understand the hazard and vulnerability profile of India	2.85	-	-	3	-	-	-	3	-	-	-	-	2
GEL4101	Demonstrate proficiency in quantitative methods qualitative analysis critical thinking and written and oral communication needed to conduct entry level work as interdisciplinary scholars andor practitioners.	2.81	-	-	-	-	-	-	-	-	-	-	-	3
EEP1102	Simulate laboratory experiments in the software.	3	-	-	-	-	-	-	-	-	-	-	-	2
MEP1102	Create isometric projection from Multi view drawings of an object.	-	-	-	-	-	-	-	-	-	-	-	-	-
EEP1102	Perform tests on motor-generator set	3	3	-	-	-	-	-	-	-	-	-	-	-
MEP1102	Sketch projection of solids and development of lateral surfaces of solids	2.94	-	-	-	1	-	-	-	-	-	-	-	2
CHL4101	Develop innovative methods to produce soft water for industrial use and potable water at cheaper cost.	2.47	3	-	-	-	-	-	-	-	-	-	-	3
CEL5102	Determine resultants and apply conditions of static equilibrium to plane force systems	2.55	2	2	-	1	-	-	-	-	-	-	-	3
AML5102	To analyze and correlate many real-life problems mathematically and thus find the appropriate solution for them using Fourier series and Transforms Fourier and Laplace transform.	2.26	3	-	-	-	2	-	-	-	-	-	-	-
CEL3205	Evaluate various properties of concrete	2.90	3	-	-	-	-	-	-	-	-	-	1	2
CEP1215	Able to check the quality of building materials	2.96	2	-	-	3	-	-	-	-	-	-	-	-
CHP1101	Determination of parameters like hardness and chloride content in water.	2.94	3	-	-	-	-	-	-	-	-	-	-	2

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MEW2101	To acquire skills in basic mechanical engineering practice	3	3	3	-	3	-	-	-	-	-	-	-	3
ASE3101	Students will able to apply material from their discipline to the design of community based projects	2.51	2	2	-	-	-	-	-	-	-	-	-	2
CHL4101	Substitute metals with conducting polymers and also produce cheape biodegradable polymers to reduce environmental pollution	2.47	-	2	-	-	3	-	-	-	-	-	-	-
CEL5102	Identify and quantify all forces ass[illegible] with a static framework	2.47	-	-	-	3	-	-	-	-	-	-	-	-
AML5102	Using ordinary differential equations student will be able to solve various practical problems in Science and Engineering.	2.26	-	-	-	-	-	-	-	2	2	-	-	1
CEL3205	Evaluate various properties of the basic construction materials such as brick stone timber metals	2.53	-	2	-	2	-	-	-	-	-	-	-	-
CEP1215	Able to impart the knowledge about the characteristics sources and defects in various materials used for construction purposes	2.96	-	-	-	-	-	-	-	-	-	-	-	1
CHP1101	Estimation of rate constant of a reaction from concentration time relationships	2.94	2	2	-	-	-	-	-	-	-	-	-	-
MEW2101	To identify the hand tools and instruments	3	-	-	-	-	1	-	-	-	-	-	-	-
ASE3101	Students will get an appreciation of the role that their discipline can play in social contexts.	2.81	1	-	2	-	-	-	-	-	-	-	-	-
CHL4101	Design economically and new methods of synthesis nano materials.	2.47	1	3	-	-	-	-	-	-	-	-	-	-
CEL5102	Solve problems in kinematic and dynamic systems	2.55	3	3	-	-	-	-	-	1	1	-	-	2
AML5102	Possess an ability to recognize and find families of solutions for most real physical	2.26	-	2	-	-	-	-	1	-	-	-	-	-
CEL3205	Develop skills to work in field of building materials quality control.	2.53	-	-	-	2	-	-	-	-	-	-	-	2
CEP1215	Able to design and test the materials either in the laboratory or in the field before their actual use at the site.	2.96	-	3	-	-	-	-	1	-	-	-	-	2
CHP1101	Determination of physical properties like adsorption surface tension and viscosity	2.94	1	-	-	-	-	-	-	-	-	-	-	3
MEW2101	To acquire measuring skills	3	3	1	-	-	-	-	-	-	-	-	-	-
ASE3101	To get awareness of professional ethics and responsibility	2.81	-	-	3	-	-	-	-	-	-	-	-	-
CHL4101	Apply their knowledge for protection of different metals from corrosion.	2.47	3	3	-	-	-	3	-	-	-	-	-	3
CEL5102	Understand basic kinematics concepts displacement velocity and acceleration	2.55	-	-	-	2	-	-	-	-	-	-	-	-
AML5102	Student will be able to analyze functions of complex variables techniques of complex integrals and compute integrals over complex surfaces.	2.26	3	-	-	-	-	-	-	-	-	-	-	3
CEL3205	Evaluate the properties of miscellaneous materials such as bitumen paints distempering materials for structural repairs	2.53	3	-	-	-	-	-	-	-	-	-	-	-
CEP1215	Able to attain the knowledge of different building materials their classification	2.96	-	2	-	-	-	-	-	-	-	-	-	2
MEW2101	To provides the knowledge of job materials in various shops	3	2	-	-	2	-	-	-	-	-	-	-	3
ASE3101	To enhance team working and leadership skills to facilitate employability.	2.81	-	-	-	-	-	-	3	-	-	-	-	2
CHL4101	Have the knowledge of converting solar energy into most needy electrical energy efficiently and economically to reduce the environmental pollution	2.47	3	-	-	-	-	-	-	-	-	-	-	2
CEL5102	Understand basic dynamics concepts momentum work and energy	2.55	3	-	-	2	-	-	-	-	-	-	1	-

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AML5102	To develop skills required to find the appropriate differential equations that can be used as mathematical models.	2.26	3	-	-	-	-	-	1	-	-	-	-	2
CEL3205	Perform various quality control tests for the various civil engineering materials by performing different lab tests on materials	2.53	2	-	-	-	-	-	-	-	-	-	-	2
CEP1215	Enhances skills in quality control and this helps in employability	2.96	-	-	-	-	-	-	2	-	-	-	-	2
MEW2101	To provides the knowledge of core technical subjects for making and [illegible] of any type of projects	3	2	3	-	3	-	-	-	-	-	-	-	3
ASE3101	Demonstrate the ability to work in a [illegible] based small projects and effectively.	2.81	2	-	-	-	-	-	1	-	-	-	-	-
CEL3203	Solve hydrostatic problems to enhance analytical skills.	2.5	3	-	-	-	-	-	-	2	2	-	-	2
CEL3209	Determine resultants and apply conditions of static equilibrium to plane force systems	2.44	3	-	-	-	-	-	-	2	2	-	-	2
CEL3207	Skill enhanced to carry out preliminary surveying in the field of civil engineering applications such as structural highway engineering and geotechnical engineering	2.6	-	-	3	-	-	-	-	-	-	-	-	3
CEL3208	Apply science and engineering fundamentals to solve current problems and to anticipate mitigate and prevent future problems in the area of water resources management	1.88	-	-	-	-	-	-	-	-	-	-	-	1
HUL3301	The students will be able to get awareness on human values and professional ethics	2.44	2	-	-	-	-	-	1	-	-	-	-	-
CEP1203	Identify name and characterize flow patterns and regimes	2.72	3	-	-	-	2	-	-	-	-	-	-	-
CEP1211	Conduct tension test on Materials i.e. steel etc.	2.9	3	-	-	-	-	-	-	-	-	-	1	2
CEP1227	Survey an area under various topographical feature and obstructions	2.94	3	-	-	-	2	-	-	-	-	-	-	-
CEP2209	Demonstrate basic concepts of the AutoCAD software to gain employability	2.88	-	-	-	1	-	-	-	-	-	-	-	1
CLP2401	Demonstrate Body Language include facial expressions and voice modulation intonation via role plays.	2.88	2	-	-	-	-	-	1	-	-	-	-	-
CEL3203	Describe the physical properties of a fluid	2.5	-	-	-	2	-	-	-	-	-	-	-	2
CEL3209	Identify and quantify all forces associated with a static framework	2.44	-	-	-	2	-	-	-	-	-	-	-	2
CEL3207	Plan a survey taking accurate measurements field booking plotting and adjustment of traverse	2.6	2	-	-	1	-	-	-	-	-	-	-	-
CEL3208	An ability to manipulate hydrological data and undertake widely-used data analysis a systematic understanding of the [illegible] of hydrological stores and fluxes and a critical awareness of the methods used to measure analyze and forecast their variability and the appropriate circumstances their application	1.9	2	-	-	3	-	-	-	-	-	-	-	-
HUL3301	The students will understand the [illegible] values that shape their ethical beh[illegible]	2.47	-	-	-	-	-	-	2	-	-	-	-	-
CEP1203	Understand basic units of measure[illegible] convert units and appreciate their magnitudes	2.7	2	-	-	-	1	-	-	-	-	-	-	-
CEP1211	Conduct compression tests on specimen wood and concrete	2.9	-	2	-	2	-	-	-	-	-	-	-	-
CEP1227	Prepare the plan or map of the area surveyed	2.94	-	3	-	-	-	-	2	-	-	-	-	-
CEP2209	Apply basic skills to develop [illegible] drawing techniques	2.88	-	2	-	-	-	-	-	-	-	-	-	-
CLP2401	Team Dynamics via text-based [illegible] presentations	2.81	-	-	-	-	-	-	-	-	-	-	-	3
CEL3203	Calculate the pressure distribution [illegible] incompressible fluids	2.5	2	-	-	-	-	-	-	-	-	-	-	-

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CEL3207	Use various conventional instruments involved in surveying with respect to utility and precision.	2.6	-	-	2	-	-	3	-	-	-	-	-	-	-
CEL3206	Can define the key components of a functioning groundwater can determine the main aquifer properties permeability transmissivity and storage Identify geological formations capable of storing and transporting groundwater.	1.88	3	-	-	-	-	-	-	-	-	-	-	-	2
HUL3301	The students will be able to take active part in social political economic and cultural activities with responsibility	2.44	-	-	-	-	-	-	2	-	-	-	-	-	-
CEP1203	Utilize basic measurement techniques of fluid mechanics	2.72	-	-	-	-	-	-	-	-	-	1	-	2	-
CEP1211	Conduct flexural and torsion test to determine elastic constants	2.9	-	-	-	2	-	-	-	-	-	-	-	2	-
CEP1227	Annalise report and where appropriate distribute the survey errors	2.94	3	-	-	-	2	-	-	-	-	-	-	-	-
CEP2209	Ability to manipulate drawings through editing and plotting techniques.	2.86	-	-	-	3	-	-	3	-	-	-	-	-	-
CLP2401	Leadership Skills via flipped classroom	2.86	-	-	-	-	-	-	2	-	-	-	-	-	-
CEL3203	Calculate the hydrostatic pressure and force on plane and curved surfaces	2.6	-	-	-	-	2	-	-	-	-	-	2	-	-
CEL3207	Plan a survey for applications such as road alignment and height of the building	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HUL3301	The students will gain thorough knowledge in the field of human rights and this will add to the academic qualification	2.44	2	-	-	-	-	-	2	-	-	-	-	-	-
CEP1203	Discuss the differences among measurement techniques their relevance and applications	2.72	-	-	-	2	-	-	-	-	-	-	-	-	-
CEP1211	Determine hardness of metals	2.9	3	-	-	-	-	-	-	-	-	-	-	-	-
CEP1227	Perform instruments checks to ensure they meet the specifications	2.94	-	-	-	-	-	-	-	-	-	-	-	3	-
CEP2209	Understand geometric construction.	2.86	1	-	-	-	-	-	3	-	-	-	-	-	-
CLP2401	Research Aptitude via projects to value the employability.	2.86	1	-	-	-	-	-	2	-	-	-	-	-	-
CEL3203	Demonstrate the application point of hydrostatic forces on plane and curved surfaces to focus on employability	2.6	-	-	-	-	-	-	-	-	-	-	2	-	-
CEL3207	Undertake measurement and plotting in civil engineering	2.6	2	-	-	1	-	-	-	-	-	-	-	-	-
CEP1203	Prove good understanding of concepts and their applications in the laboratory	2.72	-	-	-	2	-	-	-	-	-	-	-	-	-
CEP1227	To make student ready for industry in field of surveying and thus enhances employability.	2.94	2	3	-	-	-	-	-	-	-	-	-	-	-
CEP2209	Produce template drawings	2.86	2	-	-	3	-	-	-	-	-	-	-	2	-
CLP2401	Effective communication with emphasis on capturing the attention of the audience	2.86	2	-	-	-	-	-	2	-	-	-	-	-	-
CEL4206	Calculate deformation of statically determinate structures using geometric and energy	2.14	1	-	-	2	-	-	-	-	-	-	-	3	-
CEL4212	Identify and compute the main mechanical properties of concrete and steel	2.33	2	2	-	-	-	-	-	-	-	-	-	-	-
CEL3202	Ability to develop the open channel flow equations from the basic conservation equations	2.5	3	-	-	-	-	-	-	2	2	-	-	2	-
HUL2401	An ability to analyze a problem and to identify and define the computing requirements appropriate to its solution	2.7	2	-	-	-	-	-	-	-	-	-	-	2	-
CEP1205	Distinguish between statically determinate and indeterminate structures.	2.83	1	-	-	2	-	-	-	-	-	-	-	3	-
CEP1212	Able to check quality of constituent material of concrete	2.5	-	-	-	-	-	-	-	3	3	-	-	2	-
CEP1202	Utilize basic measurement techniques of fluid mechanics	2.67	3	-	-	-	2	-	-	-	-	-	-	-	-
AS102	Students will able to apply material in their discipline to the design projects	2	2	2	-	-	-	-	-	-	-	-	-	2	-

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CLP2402	Demonstrate Body Language including facial expressions and voice modulation intonation via role plays.	3	2	-	-	-	-	-	1	-	-	-	-	-
CEL4206	Analyze statically indeterminate beams using classical and conventional methods	2.14	2	-	-	-	-	-	-	-	-	-	-	2
CEL4212	Identify and calculate the design loads and distribution	2.35	-	2	-	-	-	-	-	-	-	-	-	1
CEL3202	Ability to explain the terms of the open channel flow equations and explain the interactions among the terms	2.6	-	-	-	2	-	-	-	-	-	-	-	2
HUL2401	An ability to design implement and evaluate a computer-based solution to meet a given set of computing requirements in the context of the discipline	2.7	-	-	3	-	-	-	-	-	-	-	-	-
CEP1206	Apply equations of equilibrium to structures and compute the reactions	2.94	2	-	-	-	-	-	-	-	-	-	-	2
CEP1212	Able to design a concrete mix.	2.9	-	-	3	-	-	-	-	3	3	-	-	3
CEP1202	Discuss the differences among measurement techniques their relevance and applications	2.94	2	-	-	-	1	-	-	-	-	-	-	-
AS102	Students will get an appreciation of the role that their discipline can play in social contexts.	3	1	-	2	-	-	-	-	-	-	-	-	-
CLP2402	Team Dynamics via text-based group presentations	-	-	-	-	-	-	-	-	-	-	-	-	-
CEL4206	Develop qualitative diagrams showing the displaced shape bending moments	2.14	-	-	-	2	-	-	-	-	-	-	-	-
CEL4212	Apply the strength method to design R C structural members	2.35	-	-	-	-	-	1	-	-	-	-	2	-
HUL2401	An ability to communicate effectively with a range of audiences about technical information.	2.7	-	-	-	-	-	-	3	-	-	-	-	-
CEP1206	Draw the shearing force and bending moment diagrams	2.94	-	-	-	2	-	-	-	-	-	-	-	-
CEP1212	Able to perform laboratory tests for properties of fresh and hardened concrete.	2.9	2	-	2	-	-	-	-	-	-	-	-	-
CEP1202	Prove good understanding of concepts and their applications in the laboratory	2.94	-	-	-	-	-	-	-	-	-	1	-	2
AS102	To get awareness of professional ethics and responsibility.	3	-	-	3	-	-	-	-	-	-	-	-	-
CLP2402	Leadership Skills via flipped classrooms	3	-	-	-	-	-	-	2	-	-	-	-	-
CEL4206	support reactions for an indeterminate plane frame	2.14	2	-	-	-	-	-	-	-	-	-	-	-
CEL4212	Analyze and design R C beams for flexure and shear	2.35	3	-	-	-	-	-	-	-	-	-	-	-
HUL2401	An ability to make informed judgements in computing practice based on legal and ethical principles	2.7	-	2	-	2	-	-	-	-	-	-	-	-
CEP1206	Calculate the internal forces in cable and arch type structures	2.94	2	-	-	-	-	-	-	-	-	-	-	-
CEP1212	Students will achieve perfectness in experimental skills.	2.9	-	-	-	1	-	-	-	-	-	2	-	-
CEP1202	Compare the results of analytical models introduced in lecture to the actual behavior of real fluid flows and draw correct and sustainable conclusions	2.94	-	-	-	-	2	-	-	-	-	-	-	-
AS102	Demonstrate the ability to work in a team based small projects and effectively use	3	-	-	-	-	-	-	3	-	-	-	-	2
CLP2402	Research Aptitude via projects to value the employability	3	1	-	-	-	-	-	2	-	-	-	-	-
CEL4206	Develop effective structural analysis skills for building design activities.	2.14	2	-	-	1	-	-	-	-	-	-	-	2
CEL4212	Analyze and design short and slender R C columns	2.35	2	2	-	-	-	-	-	-	-	-	-	-
HUL2401	An ability to analyze and evaluate systems with respect to maintaining operations in the presence of risks and threats	2.7	2	-	-	-	-	-	-	-	-	-	-	2

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CEP1206	Evaluate and draw the influence lines for reactions shears and bending moments in beams and girders due to moving loads	2.94	2	-	-	1	-	-	-	-	-	-	-	2
CEP1202	Understand ethical issues associated with decision making and professional conduct	2.94	-	-	1	-	2	-	-	-	-	-	-	-
AS102	To enhance team working and leadership skills to facilitate employability	3	3	-	-	-	-	-	1	-	-	-	-	-
CLP2402	Effective communication with emphasis on capturing the attention of the audience	3	3	-	-	-	-	-	2	-	-	-	-	-
CEL5308	To understand analysis of indeterminate structures and adopt an appropriate structural analysis technique	2.18	3	-	-	-	-	-	-	2	2	-	-	1
CEL3311	Given basic information prepare a horizontal and vertical alignment including super elevation which complies with AASHTO standards	2.42	3	-	1	-	-	-	2	-	-	-	-	-
CEL3303	Identify various water demands and select suitable source of water	2.5	2	2	-	-	-	-	-	-	-	-	-	2
CEL4305	To enhance skills to identify the origin of soil and to identify different types of soil	2.3	1	-	-	3	-	-	-	-	-	-	3	-
CEP1311	Design and validate technological solutions to defined problems and communicate clearly and effectively for the practical application of their work. Identify engineering properties of aggregate	2.86	2	-	-	-	3	-	-	-	-	-	-	-
CEP1303	Perform common environmental experiments relating to water and wastewater quality and know which tests are appropriate for given environmental problems and thus enhances skills of students and make them industry ready	2.86	-	1	-	-	-	-	-	1	-	-	-	2
CEP1308	Have thorough knowledge about the procedures of laboratory tests used for determination of physical index and engineering properties of soils	2.84	3	3	-	-	-	-	-	-	-	-	-	2
CET5301	Survey an area under various topographical feature and obstructions	2.92	3	-	-	2	-	-	-	-	-	-	-	3
CEP 2309	Produce structural drawing of Reinforced Concrete Elements such as Beams Slabs	2.82	2	2	-	1	-	-	-	-	-	-	-	3
CEL5308	Determine response of structures by classical iterative and matrix methods	2.18	-	-	-	-	-	3	-	-	-	2	-	-
CEL3311	Understand the relationship between the environment and transportation infrastructure and the importance the environment plays in project development of transportation projects	2.52	1	-	-	-	1	-	-	-	-	-	-	1
CEL3303	Demonstrate a firm understanding of various water quality parameters	2.5	1	-	2	-	-	-	-	-	-	-	-	-
CEL4305	To understand the various physical and engineering characteristics of different types of soil.	2.3	3	-	-	-	-	-	-	2	2	-	-	1
CEP1311	Design and validate technological solutions to defined problems and communicate clearly and effectively for the practical application of their work. Identify the grade & properties of bitumen	2.86	1	1	-	-	-	-	-	-	-	-	-	-
CEP1303	Statistically analyze and interpret laboratorial results	2.94	2	-	1	2	-	-	-	-	-	-	-	1
CEP1308	Have the capability to classify soils based on test results and interpret engineering behavior based on test results	2.84	2	-	-	-	2	-	-	-	-	-	-	-
CET5301	Prepare the plan or map of the area surveyed.	2.92	2	-	-	-	-	-	-	-	-	-	-	2
CEP 2309	Develop Structural Drawings of steel elements such as Connections Tension Members Compression Members Beams Column Base and Roof Trusses	2.82	-	-	-	2	-	-	-	-	-	-	-	1
CEL5308	To use the techniques skills and modern engineering methods involved in the analysis of structures	2.18	-	3	-	1	-	-	-	-	-	-	-	-

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CEL3311	Utilize CAD software to prepare a plan profile and x-sections depicting a typical roadway design	2.52	3	-	-	-	-	-	-	3	2	-	-	-
CEL3303	Enhancing skills to develop relevant design criteria procedures and methods for various water treatment processes	2.6	-	-	3	-	-	-	-	-	3	-	-	-
CEL4305	To understand the concept of slope stability.	2.3	-	-	-	-	-	3	-	-	-	2	-	-
CEP1311	Design and validate technological solutions to defined problems and communicate clearly and effectively for the practical application of their work. Find out peak hour traffic & peak time for a given location on the road	2.86	3	3	-	-	2	-	-	-	-	-	-	2
CEP1303	Apply the laboratorial results to problem identification quantification and basic environmental design and technical solutions.	2.80	2	-	2	-	-	-	-	2	2	-	-	-
CEP1308	Be able to evaluate the permeability and shear strength of soils	2.84	-	2	-	-	-	-	1	-	-	-	-	-
CET5301	Annalise report and where appropriate distribute the survey errors	2.92	-	-	-	2	-	-	-	-	-	-	-	-
CEP 2309	To enhance team working and leadership skills to facilitate employability.	2.82	3	3	-	-	-	-	-	-	-	-	-	2
CEL5308	Utilize the concept of influence lines for deciding the critical forces and sections while designing	2.18	3	-	1	-	-	-	2	-	-	-	-	-
CEL3311	Prepare well written design narratives documenting the various parameters and standards used in the design process so another individual could review the work and understand what decisions and assumptions were used and why	2.52	1	-	-	2	-	-	-	-	-	-	3	-
CEL3303	Describe structure of drinking water supply system water transport and its distribution	2.5	-	-	-	-	-	1	-	-	-	-	-	2
CEL4305	To appreciate the use of modern technology in the field of geotechnical engineering	2.3	-	3	-	1	-	-	-	-	-	-	-	-
CEP1311	Calculate design speed maximum speed & minimum speed limits of a location through spot speed.	2.86	3	3	-	-	-	-	-	-	-	-	-	-
CEP1303	Understand and use the water and wastewater sampling procedures and sample preservations.	2.56	1	-	-	-	-	-	-	3	2	-	-	2
CEP1308	Be able to evaluate settlement characteristics of soils	2.94	2	2	-	-	-	-	-	-	-	-	-	3
CET5301	Perform instruments checks to ensure they meet the specifications	2.9[illegible]	2	-	-	-	-	-	-	-	-	-	-	-
CEP 2309	Design and draw working structural drawings of staircase foundation dome and water retaining structures	[illegible]	-	-	-	2	-	-	-	-	-	-	-	-
CEL5308	To impart knowledge about various methods involved in the analysis of indeterminate structures	2.18	1	-	-	-	1	-	-	-	-	-	-	1
CEL3311	Understand the mathematics behind the development of tables and charts for determining highway design criteria	2.52	3	-	-	-	-	-	2	-	-	-	1	-
CEL3303	Able to determine the population for a city to meet its water requirement for enhancing skills for employability in planning projects	2.5	-	-	3	-	-	-	-	-	2	-	-	-
CEL4305	Understand and apply the Principle of Effective Stress to a range of typical geotechnical problems in order to predict the ground response under different conditions of loading soil type and groundwater states	2.3	-	2	-	-	-	-	-	-	-	-	-	1
CEP1311	Draw parking accumulation curve and find out parking duration & turnover of parking lot	2.86	2	-	-	-	-	1	-	-	-	-	-	-

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CEP1303	Obtain the necessary background for subsequent courses in environmental engineering.	2.86	3	-	-	-	-	-	-	2	2	-	-	3
CEP1308	Be able to evaluate compaction characteristics required for field application	2.54	3	-	-	-	-	-	-	2	2	-	-	-
CET5301	Surveying practice skills enhanced	2.42	3	-	-	1	-	-	-	-	-	-	-	2
CEP 2309	Use of relevant Indian Standard specifications applicable to Reinforced concrete structures	2.82	1	-	-	3	-	-	-	-	-	-	-	-
CEL3310	Design of unit processes for conventional and advanced wastewater treatment systems	2.96	3	3	-	-	-	-	-	-	-	-	-	2
CEL 3308	Apply theoretical and practical aspects of project management techniques to achieve project goals.	2.5	2	-	-	2	-	-	-	-	-	-	-	1
CEL3302	Will have a basic knowledge on methods and types of estimation and its merits and demerits	2.58	3	-	-	-	-	-	-	-	-	-	-	2
CEL4304	Learn the basic elements of a steel structure	2.25	-	2	-	-	-	-	-	-	-	-	-	1
CEL5314	Apply principles of engineering mechanics and use appropriate tools to solve problems in structural engineering.	2.6	3	-	-	-	2	-	-	-	-	-	-	-
CEP1310	Perform common environmental experiments relating to water and wastewater quality and know which tests are appropriate for given environmental problems and thus enhances skills of students and make them industry read.	2.96	-	1	-	-	-	-	-	1	-	-	-	2
GTI4301	Student will be able to improve answers during the Aptitude test and develop an all-around personality with a mature outlook	2.21	3	-	-	-	-	-	3	2	-	-	-	3
AS103	Students will able to apply material from their discipline to the design projects	2.96	2	2	-	-	-	-	-	-	-	-	-	2
CEL3310	Analyze wastewater treatment processes and operations	2.96	1	2	-	-	-	-	-	-	-	-	-	-
CEL 3308	Possess organizational and leadership capabilities for effective management of construction projects	2.92	2	-	-	-	-	-	1	-	-	-	-	3
CEL3302	Have knowledge on specifications and tendering process for contracts	2.96	3	-	-	1	-	-	-	-	-	-	-	2
CEL4304	Learn the fundamentals of structural steel fasteners	2.25	-	3	-	-	-	-	2	-	-	-	-	-
CEL5314	Design and evaluate structural components and systems to meet the desired needs within realistic constraints such as economic environmental social political ethical health and safety constructability and sustainability	2.6	3	-	2	-	-	-	-	1	1	-	-	-
CEP1310	Statistically analyze and interpret laboratorial results	2.96	2	-	1	3	-	-	-	-	-	-	-	1
GTI4301	Student will be able to enhance their logical thinking verbal reasoning and numerical reasoning.	2.17	1	-	3	-	-	-	-	-	-	3	-	3
AS103	Students will get an appreciation of the role that their discipline can play in social contexts.	2.96	1	-	2	-	-	-	-	-	-	-	-	-
CEL3310	Characterize wastewater and the best available technologies for treatment of wastewater	2.96	-	-	3	-	-	-	-	-	3	-	-	-
CEL 3308	Be able to apply knowledge and skills of modern construction practices and techniques	2.5	-	1	-	-	-	-	-	-	-	2	-	3
CEL3302	Will have the ability to understand the types formation terms and conditions of contracts and arbitration	2.58	1	2	-	-	-	-	-	-	-	-	-	2
CEL4304	Able to design basic elements of steel structure like tension members compression members beams and basic columns	2.25	3	-	-	-	-	-	-	3	3	-	-	-

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CEL5314	Plan compose and integrate verbal written and graphical communication to technical and non-technical audiences.	2.6	1	-	-	-	-	-	-	-	-	1	-	2
CEP1310	Apply the laboratorial results to problem identification quantification and basic environmental design and technical solutions.	2.96	2	-	2	-	-	-	-	2	2	-	-	-
GTI4301	Students will take part effectively and confidently not only in campus placements programs but also in other exams like CAT GMAT SSC Bank Po UPSC etc	2.67	2	-	-	-	-	2	-	-	-	-	-	-
AS103	To get awareness of professional ethics and responsibility	2.96	-	-	3	-	-	-	-	-	-	-	-	-
CEL3310	Identify health and environmental issues related to solid waste management and steps in solid waste management-waste reduction at source and collection technique	2.90	-	-	-	-	-	1	-	-	-	-	-	2
CEL 3308	Have necessary knowledge and skills in accounting financing risk analysis and contracting to enhance skill and employability development	2.90	2	1	-	2	-	-	-	-	-	-	-	1
CEL3302	Will have the knowledge of rate analysis of different item of work and MB and bill of quantities	2.96	-	-	-	1	-	-	-	-	-	2	-	-
CEL4304	Able to design column splices and bases.	2.25	-	1	-	-	-	-	-	-	-	-	-	-
CEL5314	Function effectively as a member of an engineering team	2.6	2	-	-	2	-	-	-	-	-	-	-	1
CEP1310	Understand and use the water and wastewater sampling procedures and sample preservations.	2.96	1	-	-	-	-	-	-	3	2	-	-	2
AS103	Demonstrate the ability to work in a team based small projects and effectively use	2.96	-	-	-	-	-	-	3	-	-	-	-	2
CEL3310	Identify and analyze of air and noise pollution including methods for prevention control measures and management of the pollution.	2.96	-	-	-	3	-	-	-	-	2	-	-	-
CEL 3308	Be capable of using relevant software packages for planning scheduling executing and controlling of construction projects	2.90	2	-	-	-	-	-	-	-	-	-	-	3
CEL3302	Will able to value a property prior escalation recommendations and auditing	2.96	1	2	-	-	-	-	-	-	-	-	-	-
CEL4304	Ability to analyze and design of simple bolted and welded connections	2.25	-	-	-	-	3	-	-	-	-	3	-	1
CEL5314	Discuss professional responsibility in light of social context of engineering problems.	2.6	3	-	-	2	-	-	-	-	-	-	2	-
CEP1310	Obtain the necessary background for subsequent courses in environmental engineering.	2.96	2	-	-	-	-	-	-	2	2	-	-	3
AS103	To enhance team working and leadership skills to facilitate employability	2.96	2	2	-	-	-	-	-	-	-	-	-	-
CEL4306	The students will gain an experience in the implementation of Geotechnical Engineering on engineering concepts which are applied in field Geotechnical Engineering.	2.67	1	-	-	3	-	-	-	-	-	-	3	-
CEL3427	Explain basic physical principles of remote sensing	2.92	3	-	3	-	-	-	-	-	-	-	-	3
CEL3408	Be able to find the necessary information legislation procedures for an assessment of environmental impact of a Project	2.96	3	1	-	2	-	-	-	-	-	-	3	-
CEP1302	Have thorough knowledge about the procedures of laboratory tests used for determination of physical index and engineering properties of soils	2.75	3	2	-	-	-	-	-	-	-	-	-	2
CEP1427	Iterpret hard copy satellite FCC images	2.79	-	-	-	3	-	-	2	-	-	-	-	-
CEP3431	Demonstrate basic concepts of the Staad Pro and AutoCAD software	3	3	-	-	-	2	-	-	-	-	-	-	-

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GTI2401	Students will be able to introduce and learn matrices to present mathematical solutions in a concise and informative manner. Use matrices to solve the problems of system of linear equations and solve various live problems using matrices.	2.92	1	-	-	-	-	2	-	-	-	-	-	-
AS104	Students will able to apply material from their discipline to the design projects	2.75	3	-	-	2	-	-	-	-	-	-	-	3
CEL4306	The students will get a diverse knowledge of geotechnical engineering practices applied to real life problems of design of the structures	2.96	2	-	-	-	-	-	-	2	2	-	-	1
CEL3427	Understand the basic difference between various kinds of satellites and sensors	2.92	2	3	-	1	-	-	-	-	-	-	-	2
CEL3408	Be able to conduct an EIA on a proposed project	2.96	1	-	-	-	-	-	-	-	-	2	-	3
CEP1302	Have the capability to classify soils based on test results and interpret engineering behavior based on test results	2.96	2	-	-	-	2	-	-	-	-	-	-	-
CEP1427	Understand the effect of different resolutions of satellite image on identifying terrestrial features	2.79	1	-	-	-	-	-	3	-	-	-	-	-
CEP3431	Apply basic concepts to develop design and analysis techniques	3	-	-	-	1	-	-	-	3	3	-	-	-
GTI2401	Students will be able to find local extreme values of functions of several variables test for saddle points examine the conditions for the existence of absolute extreme values. Solve constraint problems using Lagrange multipliers and solve related application problems	2.92	3	2	-	3	-	-	-	-	-	-	-	2
AS104	Students will get an appreciation of the role that their discipline can play in societal contexts.	2.75	2	-	-	-	-	-	-	1	2	-	-	2
CEL4306	The students will learn to understand the theoretical and practical aspects of geotechnical engineering along with the design and management applications	2.96	-	-	-	-	-	3	-	-	-	2	-	-
CEL3427	Know the appropriate use of satellite data for different applications	2.92	-	2	-	-	3	-	-	-	-	-	-	-
CEL3408	Be able to conduct an environmental audit on a selected company/industry	2.96	1	-	-	1	-	-	-	-	-	-	1	-
CEP1302	Be able to evaluate the permeability and shear strength of soils	2.96	-	2	-	-	-	-	1	-	-	-	-	-
CEP1427	Generate field spectra for various land cover features and draw inferences	2.79	2	-	-	2	-	-	1	-	-	-	-	2
CEP3431	Ability to manipulate drawings through editing and plotting techniques	3	3	-	3	-	-	-	-	3	3	-	-	-
GTI2401	Students will be able to apply the principles of Integral Calculus to solve a variety of practical problems in Engineering and applied Sciences	2.92	3	-	-	3	-	-	-	1	2	-	-	-
AS104	To get awareness of professional ethics and responsibility & develop the skills for employability.	2.75	-	-	-	2	-	-	-	-	-	-	-	-
CEL3427	Explain the principles of thermal and microwave satellite sensors and their nature of the data	2.92	-	3	-	1	-	-	2	-	-	-	-	2
CEL3408	Be able to develop a waste reduction and minimization plan for a selected company/industry	2.96	-	-	3	-	-	-	-	-	-	3	-	3
CEP1302	Be able to evaluate settlement characteristics of soils	2.96	2	2	-	-	-	-	-	-	-	-	-	3
CEP1427	Extract different features from satellite image.	2.79	-	-	-	2	-	-	-	-	-	1	-	-
CEP3431	Understand geometric constructs	3	2	-	2	-	-	-	-	-	-	-	-	-

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GTI2401	Students will be able to interpret statistical inference tasks with the help of probability & distributions and hypothesis testing for means variances and proportions of large as well as small data and employ appropriate regression models in determining statistical relationships	2.92	2	1	-	1	-	-	-	-	-	-	-	2
AS104	Demonstrate the ability to work in a team based small projects and effectively	2.75	2	-	-	-	-	-	-	-	-	-	-	1
CEL3427	Apply remote sensing in different thematic studies	2.50	2	-	-	-	-	-	-	-	-	-	-	-
CEL3408	Be able to develop an EMS for a Project	2.75	3	-	-	2	-	-	-	-	-	-	-	-
CEP1302	Be able to evaluate compaction characteristics required for field and laboratory	2.25	3	-	-	-	-	-	-	2	2	-	-	-
CEP1427	Provides effective training of industry orientated techniques related to the subject personality development communication and skills for employability development	-	-	-	-	-	-	-	-	-	-	-	-	-
CEP3431	Produce 3D drawings	3	-	-	-	1	-	-	-	-	-	2	-	-
AS104	Develop skills to communicate with engineers and the community at large in written an oral form	2.75	-	-	-	2	-	-	-	-	-	-	-	-
CET9403	Capability to acquire and apply fundamental principles of engineering	2.98	2	-	1	-	-	-	-	-	-	-	-	-
CET9403	To get awareness of professional ethics and responsibility. Become master in one specialized technology.	2.98	2	-	2	-	-	-	-	-	-	-	-	-
CET9403	To get awareness of professional ethics and responsibility. Become updated with all the latest changes in technological world.	2.98	1	-	-	-	-	-	2	-	-	-	-	-
CET9403	To get awareness of professional ethics and responsibility. Ability to communicate efficiently.	2.98	2	1	-	-	-	-	-	-	-	-	-	-
CET9403	To get awareness of professional ethics and responsibility. Knack to be a multi-skilled engineer with good technical knowledge management leadership and entrepreneurship skills.	2.98	-	-	-	-	3	-	-	-	-	1	-	-

PO Attainment of Subjects: B.E. Civil Engineering

Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
PYL5101	82	82	-	-	-	82	-	-	-	-	-	82
AML5101	72	72	-	72	72	-	-	72	72	72	-	72
MEP1102	98	98	-	98	-	-	98	-	-	98	-	98
EEP1102	100	100	-	-	-	-	100	-	-	-	-	100
PYP1101	96	96	-	96	-	96	-	-	-	-	-	96
HUL2101	95	95	95	-	-	-	95	95	95	95	-	95
MEL4102	82	84	-	-	-	-	81	-	-	81	-	81
EEL5102	85	85	-	-	85	-	-	-	-	-	-	85
GEL4101	94	94	-	94	-	-	-	94	94	-	-	94
CEP1215	99	99	-	99	-	-	99	-	-	-	-	99
ASE3101	94	94	94	-	-	-	94	-	-	-	-	94
MEW2101	100	100	-	100	100	-	-	-	-	-	-	100
CHP1101	98	98	-	-	-	-	-	-	-	-	-	98
CEL3205	84	84	-	84	-	-	-	-	-	-	84	84
AML5102	75	75	-	-	75	-	75	75	75	-	-	75
CEL5102	85	85	-	85	-	-	-	85	85	-	85	85
CHL4101	82	82	-	-	82	82	-	-	-	-	-	82
CEL3209	81	-	-	-	-	-	-	81	81	-	-	81
CLP2401	96	-	-	-	-	-	96	-	-	-	-	96
CEP2209	96	96	-	96	-	-	96	-	-	-	-	96
CEP1227	98	98	-	-	98	-	98	-	-	-	-	98
CEP1211	97	97	-	97	-	-	-	-	-	-	97	97

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CEP1203	91	-	-	-	91	-	-	-	-	91	-	91
HUL3301	81	-	-	-	-	-	81	-	-	-	-	-
CEL3208	63	-	-	-	-	-	-	-	-	-	-	63
CEL3207	87	87	87	87	87	-	-	-	-	-	-	87
CEL3209	83	-	-	83	83	-	-	83	83	-	83	83
CLP2402	100	-	-	-	-	-	100	-	-	-	-	-
AS102	100	100	100	-	-	-	100	-	-	-	-	100
CEP1202	98	-	-	-	98	-	-	-	-	98	-	98
CEP1212	97	-	97	97	-	-	-	97	97	97	-	97
CEP1206	98	-	-	98	-	-	-	-	-	-	-	98
CEL3202	83	-	-	83	-	-	-	83	83	-	79	83
CEL4212	79	79	-	-	-	79	-	-	-	-	-	79
CEL4206	71	-	-	-	-	-	-	-	-	-	-	71
HUL2401	90	90	90	90	-	-	90	-	-	-	-	90
CEP1311	95	95	-	-	95	95	-	-	-	-	-	95
CEP 2309	94	94	-	94	-	-	-	-	-	-	-	94
CET5301	97	-	-	97	-	-	-	-	-	-	-	97
CEP1308	95	95	-	-	95	-	95	95	95	-	-	95
CEP1303	95	95	95	95	-	-	-	95	95	-	-	95
CEL4305	77	77	-	-	-	77	-	77	77	77	77	77
CEL3303	83	83	83	-	-	83	-	-	83	-	-	83
CEL3311	84	-	-	84	84	-	84	84	84	-	84	84
CEL5308	73	73	73	73	84	73	73	73	73	73	-	73
CEL3302	99	99	-	99	-	-	-	-	-	99	-	99
AS103	99	99	99	-	-	-	99	-	-	-	-	99
GTI4301	73	-	72	-	-	72	74	74	-	72	-	73
CEP1310	99	99	-	99	-	-	-	99	99	-	-	99
CEL5314	87	-	87	87	87	-	-	87	87	87	87	87
CEL4304	75	75	-	-	75	-	75	75	75	75	-	75
CEL 3308	97	97	-	97	-	-	97	-	-	97	-	97
CEL3310	99	99	99	99	-	99	-	-	99	-	-	99
CEL4306	99	-	-	99	-	99	-	99	99	99	99	99
CEL3427	97	97	97	97	97	-	97	-	-	-	-	97
CEL3408	99	99	99	99	-	-	-	-	-	99	99	99
CEP1302	99	99	-	-	99	-	99	99	99	-	-	99
CEP1427	93	-	-	93	-	-	93	-	-	93	-	93
CEP3431	100	-	100	100	100	-	-	100	100	100	-	-
GTI2401	97	97	-	97	-	97	-	97	97	-	-	97
AS104	92	-	-	92	-	-	-	92	92	-	-	92
CET9403	99	99	99	-	99	-	99	-	-	99	-	-
POA	90.42	91.45	87	87.62	88.75	86.17	91.52	87.43	88.29	89.58	87.40	90.09

Signature

Name
(Programme In-charge)

Signature

Name
(Dean/Head)

Head of Department
Department of Civil Engineering
School of Engineering & Technology
Chitkara University, Himachal Pradesh

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