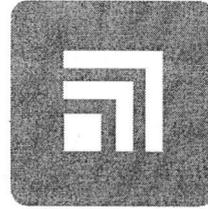


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HIMACHAL PRADESH

NAAC ACCREDITED

Report on PO Attainment

Bachelor of Engineering

Batch 2016

***Department of Electronics & Communication
Engineering***

Report on PO Attainment

Batch 2016

Department of Electronics & Communication Engineering

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 Electronics & Communication Engineering Program are the following:

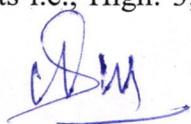
- PO-01:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization for the solution of complex engineering problems.
- PO-02:** Identify, formulate, research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.


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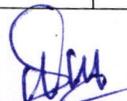
- PO-03:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for public health and safety, and cultural, societal, and environmental considerations.
- PO-04:** Use research-based knowledge and research 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 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.


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Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CHL4101	69	69	69	-	-	-	69	-	-	-	69	69
EEP1103	100	100	100	100	-	100	-	-	-	-	-	-
PYP1101	-	-	100	-	-	-	-	-	100	100	100	-
HUL2101	-	95	-	-	-	94	94	-	-	-	-	-
AML5101	85	85	85	-	-	-	-	-	-	-	85	-
EEL4103	90	90	90	90	-	-	-	-	-	-	90	90
GEL4101	-	-	-	-	-	90	90	-	-	90	-	90
PYL5101	88	88	88	88	88	-	-	-	-	-	88	88
CHP1101	99	-	99	99	-	99	99	99	-	-	-	-
MEW210 1	-	100	100	-	100	-	100	-	-	-	-	-
MEL4102	85	-	-	-	-	-	-	85	85	-	-	85
AML5102	95	95	-	-	-	-	-	-	-	-	-	-
CSL4103	-	95	95	-	95	95	-	-	-	-	-	-
ASP3101	-	100	100	100	-	-	-	-	-	-	-	-
ECL5101	92	92	-	92	-	92	92	92	-	-	-	-
ECL4214	90	-	90	90	90	-	-	-	-	-	90	90


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CSL4102	45	45	45	45	45	45	45	45	45	45	45	45
ECP2203	100	100	100	100	100	-	-	-	-	-	-	-
ECP1214	100	100	100	100	100	100	-	-	-	-	-	100
ECP1207	98	98	98	98	98	-	-	-	-	-	98	98
ECL4208	90	90	90	-	90	90	-	-	-	-	-	90
ECL4207	93	93	93	93	93	93	-	-	-	-	93	93
ECL4204	70	70	69	68	68	-	-	-	-	-	-	-
CSP2102	90	90	-	90	-	90	90	90	90	90	90	90
CSL3201	53	53	53	53	53	53	53	53	53	53	53	53
ECP3201	98	98	98	98	98	98	98	98	98	98	98	98
ECP1314	-	97	97	97	97	-	-	-	-	-	-	97
ECP1305	100	100	100	100	100	-	-	-	-	-	-	100
ECL4314	75	75	75	75	-	-	-	-	-	-	-	-
ECL4215	97	97	97	-	97	-	-	-	-	-	-	-
CSP2201	-	77	77	77	77	-	-	-	-	-	-	77
ECL4317	73	73	73	73	73	-	-	-	-	-	-	73
ECL4205	75	75	75	75	75	-	-	-	-	-	-	-


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ECL4303	82	-	82	-	82	-	-	-	82	-	-	82
GEW2301	57	-	-	57	-	-	-	-	57	-	57	57
ECP1315	93	93	93	93	93	93	-	-	93	-	-	93
ECP2303	97	-	97	-	97	-	-	-	97	-	-	97
ECP1206	93	93	-	93	93	-	-	-	-	93	-	-
ECL4315	73	73	73	73	73	-	-	-	-	73	-	-
ECL4322	73	73	-	73	73	-	-	-	-	-	-	73
ECL4321	88	88	88	-	-	-	-	-	88	-	-	-
CSP2210	72	-	72	72	-	-	-	-	-	-	72	72
CSL5210	-	-	43	43	-	43	-	-	43	-	-	-
ECL4316	98	-	98	-	98	98	98	-	-	-	-	-
GTI4301	95	95	-	-	-	-	-	-	-	-	-	95
CSA4120	95	95	95	95	-	95	-	-	-	-	95	-
HUL2401	-	95	-	95	-	-	-	-	-	-	-	95
CSP1203	-	-	-	-	-	-	-	-	-	-	-	-
ECP3204-5	100	-	100	-	100	100	-	-	100	-	100	100
ECP2313	-	100	-	-	100	-	-	-	-	-	-	100

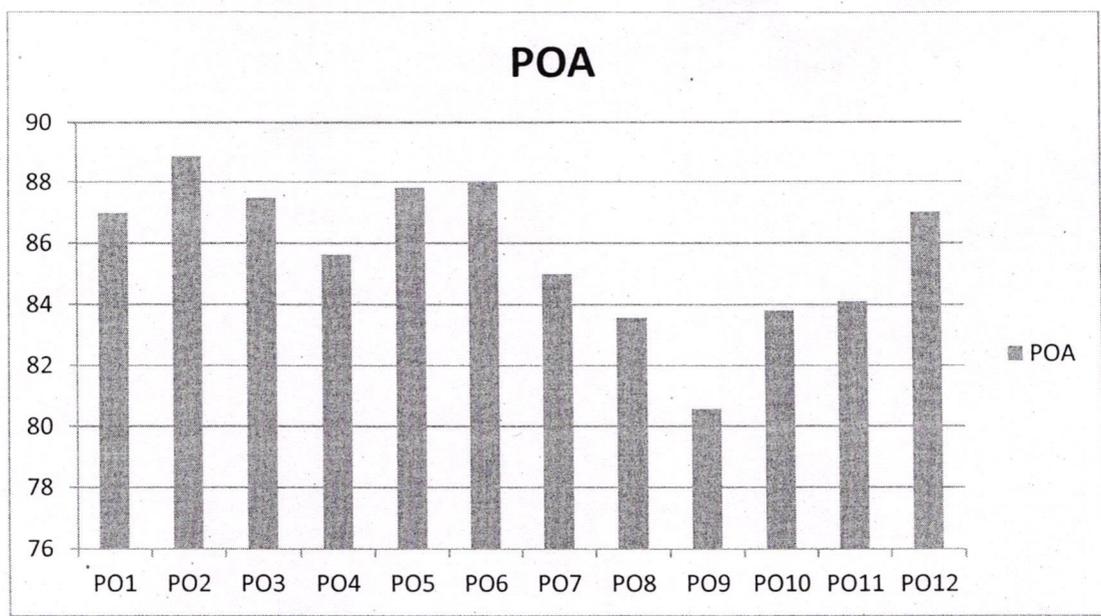

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CLP2305	98	98	-	-	-	98	-	98	98	98	-	98
ECL4311	-	98	98	98	-	-	-	-	-	-	-	-
ECL3312	98	98	-	-	-	-	-	-	-	98	-	98
ECL4404	90	90	90	90	90	-	-	-	-	-	-	-
ECL4401	93	93	93	93	-	-	-	-	-	-	-	-
ECL4407	-	90	-	90	-	-	-	-	-	-	-	90
ECL4411	-	88	88	88	-	88	-	-	-	-	-	88
ECP1404	93	93	93	93	93	-	-	-	-	-	-	-
ECP2401	-	93	-	93	93	-	-	-	-	-	-	-
ECP6401	90	90	90	-	-	90	-	-	-	-	-	90
HUL3301	-	-	-	-	-	92	92	92	-	-	92	92
ECT9401.	-	-	100	100	-	-	-	-	-	-	100	100.
POA	86.9 8	88.85	87.48	85.62	87.81	88	85	83.56	80.57	83.8	84.11	87

PO Attainment of subjects: B.E. Electronics & Communication Engineering


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Representation of PO attainment:



Analysis -

The representation shows that the students of batch 2016 have successfully attained a minimum of 80% in all of the program outcomes. However, the achieved attainment is lying between 80% to 89% in all the program outcomes.

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 Department of Electronics &
 Communication Engineering
 School of Engineering & Technology
 Chitkara University, Himachal Pradesh
Department of ECE

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Programme	B.E... [Electronics & Communication Engineering....]	Batch 2016
Subject	Engineering Graphics	Code MEL4102 Semester 2

Subject Assessment: Engineering Graphics

#	Tools	Task	Task-Id	Marks	Wt (%)	Weighted Marks (%)
1	Internal Lab	1	374	60	100	60
2	External	1	375	40	100	40

Course Outcome: Engineering Graphics

SNo	Course Outcome	Wt(%)
CO1	Improve the technical writing basic sketching and drawing.	20
CO2	Use engineering scale effectively	20
CO3	Skilled to use dimensioning effectively.	20
CO4	Use development of surfaces.	20
CO5	Communicate through Engineering Graphics.	20

CO-PO Map: Engineering Graphics

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Improve the technical writing basic sketching and drawing.	H	-	-	-	-	-	-	-	-	-	-	-
Use engineering scale effectively	-	-	-	-	-	-	-	M	-	-	-	-
Skilled to use dimensioning effectively.	-	-	-	-	-	-	-	M	-	-	-	-
Use development of surfaces.	-	-	-	-	-	-	-	-	M	-	-	-
Communicate through Engineering Graphics.	-	-	-	-	-	-	-	-	-	-	-	L

Course Outcome Contribution in Each Question

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

CO-Assessment-Marks: Engineering Graphics

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: Improve the technical writing basic sketching and drawing.

#	RollNo	Internal Lab-1[12]	External-1[8]	Total [20]	MO(%)	Scale
1	1611982001	6.8	5.6	12.4	62	3
2	1611982002	10.2	5.2	15.4	77	3
3	1611982003	9.2	6	15.2	76	3
4	1611980603	8.4	4.8	13.2	66	3
5	1611982004	6.2	3	9.2	46	2
6	1611982005	8.6	3.6	12.2	61	3
7	1611982006	8.4	5.6	14	70	3
8	1611982007	7.8	2	9.8	50	2
9	1611982019	8.4	2	10.4	52	2
10	1611980601	8.4	3.2	11.6	58	2
11	1611980602	7.4	2.8	10.2	51	2
12	1611982008	6.8	2.2	9	45	2
13	1611980604	6.6	3.8	10.4	52	2
14	1611982010	7.4	3	10.4	52	2

15	1611982020	10.2	5.2	15.4	77	3
16	1611982012	9.6	4	13.6	68	3
17	1611982013	8.2	3.6	11.8	60	3
18	1611982014	5.4	4.2	9.6	48	2
19	1611982015	8.2	4	12.2	61	3
20	1611982016	7.8	4	11.8	60	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.55	55

CO2: Use engineering scale effectively

#	RollNo	Internal Lab-1[12]	External-1[8]	Total [20]	MO(%)	Scale
1	1611982001	6.8	5.6	12.4	62	3
2	1611982002	10.2	5.2	15.4	77	3
3	1611982003	9.2	6	15.2	76	3
4	1611980603	8.4	4.8	13.2	66	3
5	1611982004	6.2	3	9.2	46	2
6	1611982005	8.6	3.6	12.2	61	3
7	1611982006	8.4	5.6	14	70	3
8	1611982007	7.8	2	9.8	50	2
9	1611982019	8.4	2	10.4	52	2
10	1611980601	8.4	3.2	11.6	58	2
11	1611980602	7.4	2.8	10.2	51	2
12	1611982008	6.8	2.2	9	45	2
13	1611980604	6.6	3.8	10.4	52	2
14	1611982010	7.4	3	10.4	52	2
15	1611982020	10.2	5.2	15.4	77	3
16	1611982012	9.6	4	13.6	68	3
17	1611982013	8.2	3.6	11.8	60	3
18	1611982014	5.4	4.2	9.6	48	2
19	1611982015	8.2	4	12.2	61	3
20	1611982016	7.8	4	11.8	60	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.55	55

CO3: Skilled to use dimensioning effectively.

#	RollNo	Internal Lab-1[12]	External-1[8]	Total [20]	MO(%)	Scale
1	1611982001	6.8	5.6	12.4	62	3
2	1611982002	10.2	5.2	15.4	77	3
3	1611982003	9.2	6	15.2	76	3
4	1611980603	8.4	4.8	13.2	66	3
5	1611982004	6.2	3	9.2	46	2
6	1611982005	8.6	3.6	12.2	61	3
7	1611982006	8.4	5.6	14	70	3
8	1611982007	7.8	2	9.8	50	2
9	1611982019	8.4	2	10.4	52	2
10	1611980601	8.4	3.2	11.6	58	2
11	1611980602	7.4	2.8	10.2	51	2
12	1611982008	6.8	2.2	9	45	2
13	1611980604	6.6	3.8	10.4	52	2
14	1611982010	7.4	3	10.4	52	2
15	1611982020	10.2	5.2	15.4	77	3
16	1611982012	9.6	4	13.6	68	3
17	1611982013	8.2	3.6	11.8	60	3
18	1611982014	5.4	4.2	9.6	48	2
19	1611982015	8.2	4	12.2	61	3
20	1611982016	7.8	4	11.8	60	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.55	55

CO4: Use development of surfaces.

#	RollNo	Internal Lab-1[12]	External-1[8]	Total [20]	MO(%)	Scale
1	1611982001	6.8	5.6	12.4	62	3
2	1611982002	10.2	5.2	15.4	77	3
3	1611982003	9.2	6	15.2	76	3
4	1611980603	8.4	4.8	13.2	66	3
5	1611982004	6.2	3	9.2	46	2
6	1611982005	8.6	3.6	12.2	61	3
7	1611982006	8.4	5.6	14	70	3
8	1611982007	7.8	2	9.8	50	2
9	1611982019	8.4	2	10.4	52	2
10	1611980601	8.4	3.2	11.6	58	2
11	1611980602	7.4	2.8	10.2	51	2
12	1611982008	6.8	2.2	9	45	2
13	1611980604	6.6	3.8	10.4	52	2
14	1611982010	7.4	3	10.4	52	2
15	1611982020	10.2	5.2	15.4	77	3
16	1611982012	9.6	4	13.6	68	3
17	1611982013	8.2	3.6	11.8	60	3
18	1611982014	5.4	4.2	9.6	48	2
19	1611982015	8.2	4	12.2	61	3
20	1611982016	7.8	4	11.8	60	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.55	55

CO5: Communicate through Engineering Graphics.

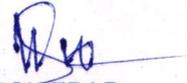
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2	1611982002	10.2	5.2	15.4	77	3
3	1611982003	9.2	6	15.2	76	3
4	1611980603	8.4	4.8	13.2	66	3
5	1611982004	6.2	3	9.2	46	2
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7	1611982006	8.4	5.6	14	70	3
8	1611982007	7.8	2	9.8	50	2
9	1611982019	8.4	2	10.4	52	2
10	1611980601	8.4	3.2	11.6	58	2
11	1611980602	7.4	2.8	10.2	51	2
12	1611982008	6.8	2.2	9	45	2
13	1611980604	6.6	3.8	10.4	52	2
14	1611982010	7.4	3	10.4	52	2
15	1611982020	10.2	5.2	15.4	77	3
16	1611982012	9.6	4	13.6	68	3
17	1611982013	8.2	3.6	11.8	60	3
18	1611982014	5.4	4.2	9.6	48	2
19	1611982015	8.2	4	12.2	61	3
20	1611982016	7.8	4	11.8	60	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.55	55

Attainment on Scale of 3	Percentage Attainment
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2.55

85.00



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