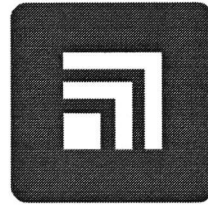**CHITKARA**
UNIVERSITY

HIMACHAL PRADESH
NAAC ACCREDITED

Report on PO Attainment

Master of Engineering

(Computer Science & Engineering)

Batch 2016

Department of Computer Science & 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 program.

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 Outcomes (PO)

The Program Outcomes for the ME(CSE) Program are the following:

PO1. Possess an ability to apply knowledge of Computer Science & Engineering.

PO2. Possess an ability to design and conduct experiments, as well as to analyze and interpret data.

PO3. Possess an ability to design a system, component or process to meet desired meets within realistic constraints such as economics, environmental, social, political, ethical, health and safety, manufacturability, and sustainability.

PO4. Possess an ability to function on multidisciplinary teams.

PO5. Possess an ability to identify, formulate and solve engineering problems

PO6. Possess an understanding professional and ethical responsibility.

PO7. Possess an ability to communicate effectively.

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PO8. Possess a capability to understand impact of engineering solutions in a global, economic, environmental, and societal context.

PO9. Possess an ability to recognize the need for, and an ability to engage in life-long learning.

PO10. Possess an ability to use the techniques, skills, and modern engineering tools necessary for engineering.

Course Outcomes mapping with Program Outcomes:

The course learning outcomes were mapped with the defined program outcomes of the Department of Computer Science & Engineering on the scale of High, Medium and Low. Subsequently the mapped values were assigned with the weights i.e. High: 3; Medium: 2; and Low: 1. The subject wise result was compiled for 1st, 2nd, 3rd, 4th, 5th & 6th semester.

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PO Attainment of Subjects: ME CSE Computer Science & Engineering

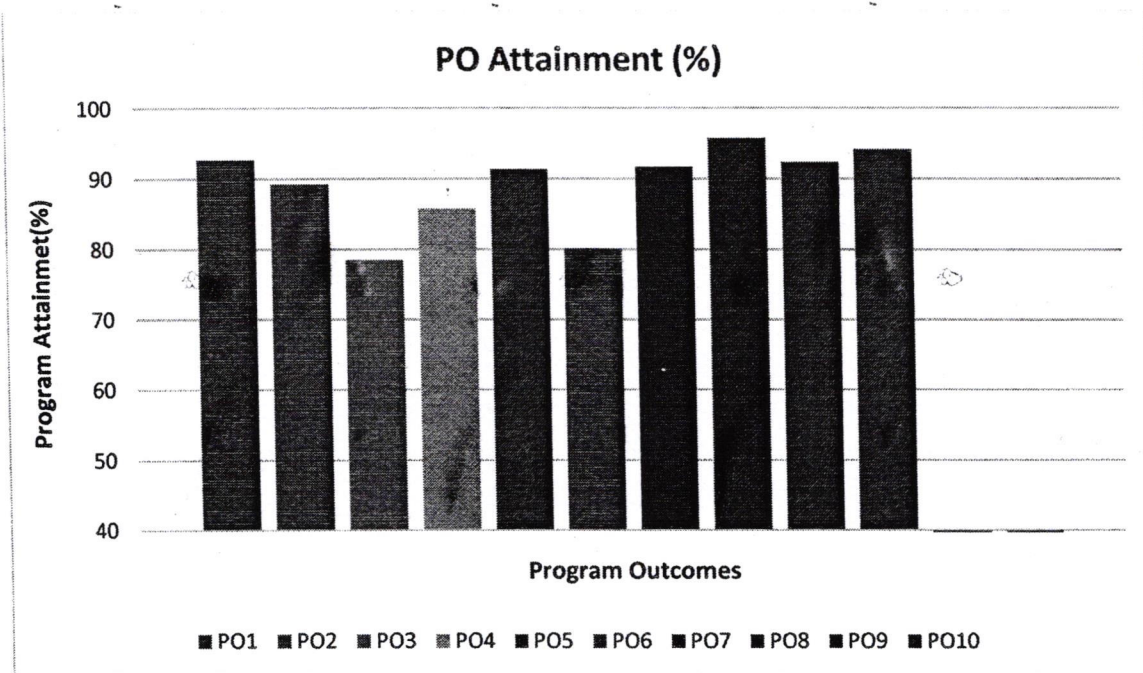| Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CSL4631	-	87	-	-	87	87	-	87	87	-
CSL4632	90	-	-	-	-	90	90	90	-	90
CSL4633	85	-	85	-	-	-	-	-	85	-
CSP1631	-	92	-	92	-	92	-	-	-	92
CSP1632	60	60	-	-	60	-	-	-	60	-
CSL4626	100	-	-	100	-	-	-	100	-	-
CSL4502	76	-	76	-	76	76	-	-	76	-
CSP1502	-	82	82	-	-	82	82	-	-	-
ECL4606	-	89	-	89	89	89	-	89	89	89
ECP1606	100	-	-	-	-	-	-	100	-	-
CSL4635	76	-	76	76	-	-	76	-	76	-
CSP1635	-	82	82	-	-	82	-	-	-	-
CSL4636	100	100	-	-	100	-	-	-	-	100
CSL4211	87	87	-	-	-	-	87	-	-	-
CSL4212	-	95	95	-	95	-	95	-	95	95
CSL4653	100	-	-	-	100	-	95	100	-	-
ECL2601	-	98	98	98	-	-	-	-	98	98
CSL2518	100	-	-	-	-	-	100	100	100	-
CST9702	-	-	73	73	73	73	73	-	-	-
PRM4101	80	-	-	80	-	80	-	-	-	80
RS994	-	-	-	-	-	-	-	-	-	-
POA	92.67	89.24	78.54	85.76	91.34	80.12	91.65	95.76	92.33	94.16

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Representation of PO attainment

PO Attainment (%)

Analysis: -

The above representation shows that the students of ME - batch 2016 have successfully attained a minimum of 88 %. Although the overall PO target was achieved. Based on the course exit survey and student feedback subsequent coaching classes will be conducted beyond the regular planned classes.The students were found lagging in analytical part. To overcome this, workshops will be conducted with experts from Industry. The awareness programs would be planned for the students to understand the OBE education system.

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HOD CSE

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Course Outcome Attainment Report

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Programme	*ME CSE [Computer Science & Engineering]*	*Batch 2016*
Subject	*Information Security*	Code *CSL4633* Semester *1*

Subject Assessment: *Information Security*

#	Tools	Task	Task-Id	Marks	Wt (%)	Weighted Marks (%)
1	Internal	1	458	40	100	40
2	External	1	459	60	100	60

Course Outcome: *Information Security*

SNo	Course Outcome	Wt(%)
CO1	Review and practice computer and network etiquette and ethics found in working environments	20
CO2	Perform risk assessment	20
CO3	Install configure use and manage anti malware software on a working network	20
CO4	Evaluate best practices in security concepts and skills to maintain confidentiality integrity and availability of computer systems	20
CO5	Articulate informed opinion about issues related to cyber security	20

CO-PO Map: *Information Security*

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
Review and practice computer and network etiquette and ethics found in working environments	M	-	-	-	-	-	-	-	-	-
Perform risk assessment	-	-	-	-	-	-	M	-	-	-
Install configure use and manage anti malware software on a working network	M	-	-	-	-	-	-	-	-	-
Evaluate best practices in security concepts and skills to maintain confidentiality integrity and availability of computer systems	-	H	-	-	-	-	-	-	-	-
Articulate informed opinion about issues related to cyber security	-	-	M	-	-	-	-	-	-	-

Course Outcome Contribution in Each Question

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

CO-Assessment-Marks: *Information Security*

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: Review and practice computer and network etiquette and ethics found in working environments

#	RollNo	Internal-1[8]	External-1[12]	Total [20]	MO(%)	Scale
1	1610981101	5	8	13	65	3
2	1610981102	5.8	8.6	14.4	72	3
3	1610981103	6.8	10.4	17.2	86	3
4	1610981104	4.6	7.2	11.8	60	3
5	1610981105	5.6	7.4	13	65	3
6	1610981106	5.6	8.8	14.4	72	3
7	1610981107	0	0	0	0	1
8	1610981108	0	0	0	0	1
9	M1611984001	3.4	7	10.4	52	2
10	M1611984002	4.4	7.2	11.6	58	2
11	M1611984004	5	7.6	12.6	63	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.45	63.84

CO2: Perform risk assessment

5	1610981105	5.6	7.4	13	65	3
6	1610981106	5.6	8.8	14.4	72	3
7	1610981107	0	0	0	0	1
8	1610981108	0	0	0	0	1
9	M1611984001	3.4	7	10.4	52	2
10	M1611984002	4.4	7.2	11.6	58	2
11	M1611984004	5	7.6	12.6	63	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.45	63.64

Attainment on Scale of 3	Percentage Attainment
2.45	81.67

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