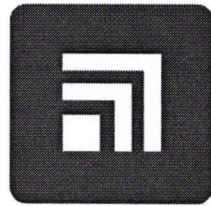**CHITKARA**
UNIVERSITY

HIMACHAL PRADESH
NAAC ACCREDITED

Report on PO Attainment

Master of Engineering

(Computer Science & Engineering)

Batch 2018

Department of Computer Science & Engineering

Report on PO Attainment

ME -Batch 2018

Department of Computer Science & Engineering

Dated:18/08/2021

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.
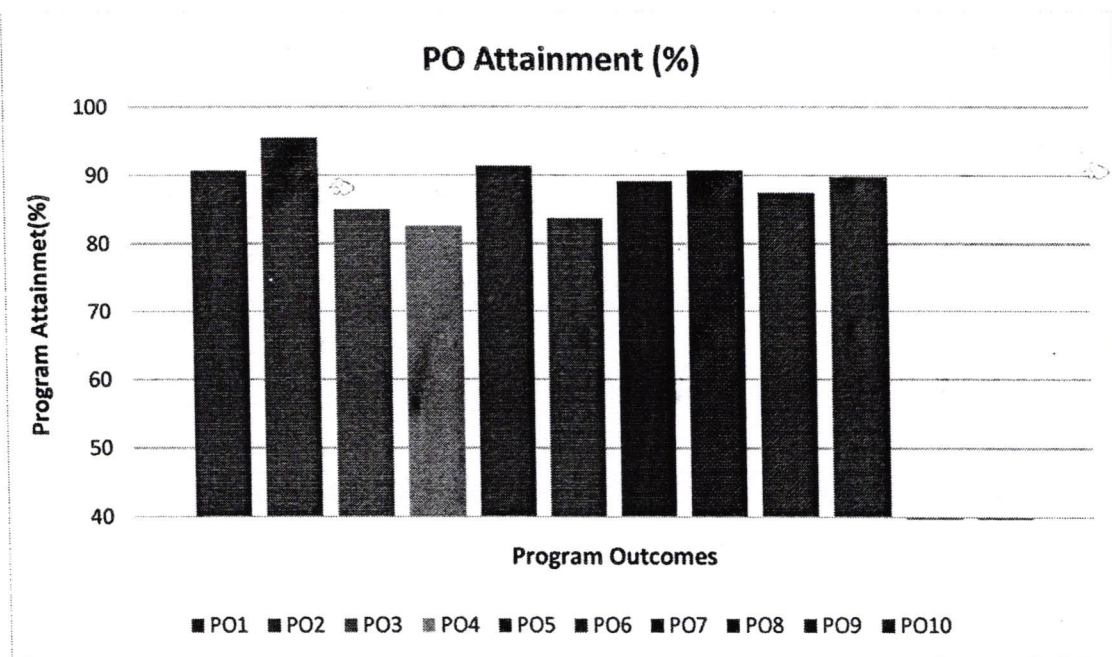
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PO Attainment of Subjects: ME CSE Computer Science & Engineering

Subject	PO0	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10
CS902	-	100	-	-	100	-	-	-	-	100
CS903	95	-	95	-	95	-	95	95	-	-
CS906	72	72	72	-	-	-	72	72	72	-
CS907	-	100	-	-	100	-	-	-	100	-
CS921	81	81	-	81	81	-	81	81	-	-
CS922	86	86	-	-	-	86	86	-	86	-
CS952	88	88	-	-	-	88	88	-	-	88
CS909	-	80	-	80	80	-	80	-	80	-
CS910	85	-	-	85	-	-	-	-	85	-
CS991	-	92	92	-	-	92	-	-	-	92
CS913	60	60	-	-	60	-	-	-	60	-
CS953	-	82	-	82	-	82	-	-	-	-
CS957	76	-	-	-	-	76	-	-	-	-
RS992	-	-	-	-	-	-	-	-	-	-
RS993	-	-	-	-	-	-	-	-	-	-
CS908	-	87	-	-	87	87	-	87	87	-
CS909	-	-	-	-	-	90	90	90	90	90
CS954	82	82	82	82	-	-	-	-	-	82
CS964	-	69	69	69	69	-	-	-	-	-
RS994	-	-	-	-	-	-	-	-	-	-
RS995	-	-	-	-	-	-	-	-	-	-
POA	90.67	95.46	85	82.65	91.35	83.78	89.11	90.67	87.45	89.78

Representation of PO attainment

PO Attainment (%)

Bar chart showing Program Attainment(%) on the y-axis (ranging from 40 to 100) versus Program Outcomes on the x-axis. Legend: ■ PO1 ■ PO2 ■ PO3 ▨ PO4 ■ PO5 ■ PO6 ■ PO7 ■ PO8 ■ PO9 ■ PO10

Analysis: -

The above representation shows that the students of ME -batch 2018 have successfully attained a minimum of 89%. This indicates that the evaluation pattern has been consistent in terms of questions asked and the marks obtained by the students have been consistent. The further change in the pattern may be observed when more multidisciplinary projects will be given to the students and for creating awareness about ethics, one or two courses related to professional ethics will be added.

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HOD CSE

Course Outcome Attainment Report

CHITKARA UNIVERSITY

Programme	ME CSE [Computer Science & Engineering]	Batch 2018	
Subject	Cryptography & Network Security	Code CS 903	Semester 1

Subject Assessment: *Cryptography & Network 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: *Cryptography & Network Security*

SNo	Course Outcome	Wt(%)
CO1	Skilled to identify common network security vulnerabilities/attacks.	20
CO2	Explain the foundations of Cryptography and network security	20
CO3	Critically evaluate the risks and threats to networked computers.	20
CO4	Demonstrate detailed knowledge of the role of encryption to protect data, analyse security issues arising from the use of certain types of technologies	20
5	Identify the appropriate procedures required to secure networks.	20

CO-PO Map: *Cryptography & Network 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 Oucome
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: *Cryptography & Network 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 her only internal or external components, we would consider 100%.

CO1: Skilled to identify common network security vulnerabilities/attacks.

#	RollNo	Internal-1[8]	External-1[12]	Total [20]	MO(%)	Scale
1	M1811984001	5	8	13	65	3
2	M1811984002	5.8	8.6	14.4	72	3
3	M1811984003	6.8	10.4	17.2	86	3
4	M1811984004	4.6	7.2	11.8	60	3
5	M1811984005	5.6	7.4	13	65	3
6						

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