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UNIVERSITY



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HIMACHAL PRADESH  
NAAC ACCREDITED

**Report on PO Attainment**

**Master of Engineering**

**(Construction Technology and Management)**

**Batch 2016**

***Department of Civil Engineering***

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**Master of Engineering (Construction Technology and Management)**  
**Batch 2016**  
**Department of Civil Engineering**

**Dated: 15/07/2019**

**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:** Exhibit the planning, organization, execution, and legal skills of a construction manager.
- PO-02:** Compare construction management technologies, innovations, and processes.
- PO-03:** Evaluate the logistics underlying construction systems and devise strategies for managing these complexities.

  
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- PO-04:** Demonstrate the financial, managerial, and cognitive acumen of a leader in the construction industry.
- PO-05:** Evaluate how the legal, economic, and social relationships between contracting, the building trades, and the regulatory environment inform construction management.
- PO-06:** Analyse how issues of cost, safety, and design impact project development and implementation.
- PO-07:** Apply global, ethical, and sustainability perspectives to construction management knowledge professional engineering practice.

**Course Outcomes mapping with Program Outcomes:**

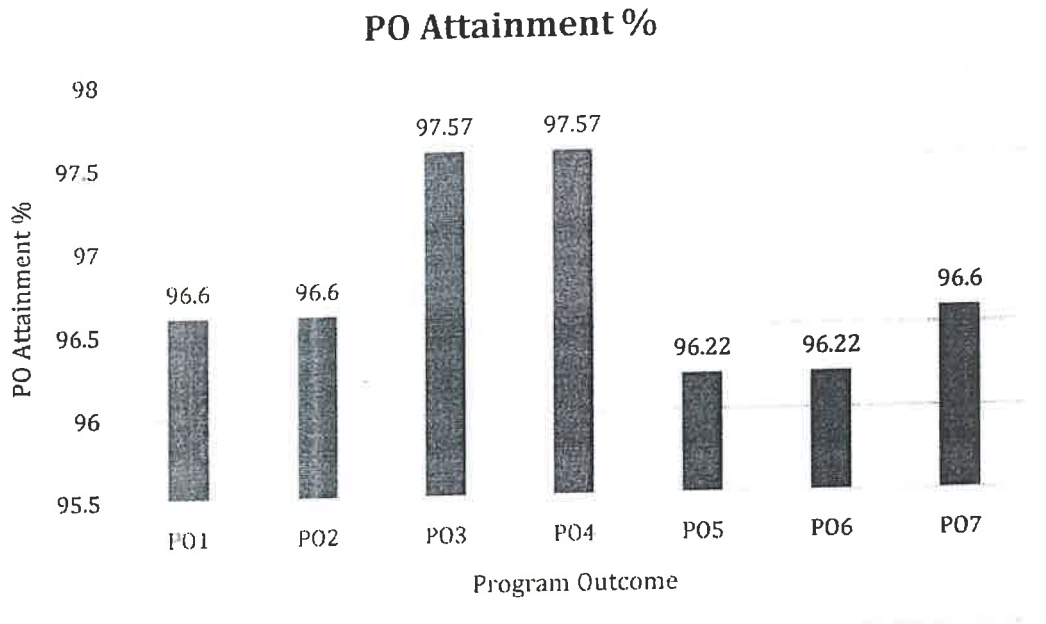
The course outcomes were mapped with the program outcomes of M.E. Construction Technology and Management (Department of Civil Engineering) on the scale of High, Medium and Low. Thereafter, the mapped values were allocated with weights i.e., High: 3; Medium: 2; and Low: 1. The subject wise result was compiled for 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> & 5<sup>th</sup> semester.

**PO Attainment of subjects: M.E. (Construction Technology and Management) Civil Engineering**

Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7
MCT6104	100	100	100	100	100	100	100
MCT6201	100	100	100	100	100	100	100
MCT6303	100	100	100	100	100	-	100
T6304	100	100	100	100	100	100	100
MCT6204	83	83	-	83	83	83	83
MCT6302	83	83	83	-	83	83	83
MCT4104	100	100	100	-	100	100	100
MCT4102	100	100	-	-	100	100	100
MCT4108	100	100	-	100	100	100	100
MCT4133	100	100	100	100	-	100	100
POA	96.60	96.60	97.57	97.57	96.22	96.22	96.60

  
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**Representation of PO attainment:**



**Analysis -**

The representation shows that the students of M.E. (Construction Technology and Management) batch 2016 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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Programme

*M.E. [Construction Technology & Management]  
Batch 2016*

Subject

*Construction Technology*

Code *MCT6204*

Semester 2

Subject Assessment: *Construction Technology*

#	Tools	Task	Task-Id	Marks	Wt (%)	Weighted Marks (%)
1	Internal	1	343	50	100	50
2	External	1	344	50	100	50

Course Outcome: *Construction Technology*

SNo	Course Outcome	Wt(%)
CO1	Able to impart the knowledge about the characteristics sources and defects in various materials used for construction purposes.	20
CO2	Able to design and test the materials either in the laboratory or in the field before their actual use at the site.	20
CO3	Able to attain the knowledge of different building materials their classification.	20
CO4	Enhances skills in quality control and thus helps in employability.	20
CO5	To use the techniques skills and modern engineering methods involved in the analysis of structures.	20

CO-PO Map: *Construction Technology*

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Able to impart the knowledge about the characteristics sources and defects in various materials used for construction purposes.	H	-	-	-	M	-	H
Able to design and test the materials either in the laboratory or in the field before their actual use at the site.	-	M	-	-	-	M	-
Able to attain the knowledge of different building materials their classification.	H	-	-	L	-	-	H
Enhances skills in quality control and thus helps in employability.	-	L	-	-	-	M	-
To use the techniques skills and modern engineering methods involved in the analysis of structures.	-	H	-	-	-	-	M

Course Outcome Contribution in Each Question

Tool	Task No.	QNo	Marks	DL	BT Level	Percentage Contribution of Course Outcome
Internal	1	1	50	Difficult	Understanding	CO1 [20], CO2 [20], CO3 [20], CO4 [20], CO5 [20].
External	1	1	50	Average	Applying	CO1 [20], CO2 [20], CO3 [20], CO4 [20], CO5 [20].

CO-Assessment-Marks: *Construction Technology*

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: Able to impart the knowledge about the characteristics sources and defects in various materials used for construction purposes.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1611986002	6	4.6	10.6	53	2
2	M1611986001	7.4	6.4	13.8	69	3

CO Attainment on Scale of


2.5

Percentage of Students Scored above 60%

50

CO2: Able to design and test the materials either in the laboratory or in the field before their actual use at the site.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1611986002	6	4.6	10.6	53	2

  
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M1611986001

7.4

6.4

13.8

69

3

CO Attainment on Scale of 3

2.5

Percentage of Students Scored above 60%

50

CO3: Able to attain the knowledge of different building materials their classification.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1611986002	6	4.6	10.6	53	2
2	M1611986001	7.4	6.4	13.8	69	3

CO Attainment on Scale of 3

2.5

Percentage of Students Scored above 60%

50

CO4: Enhances skills in quality control and thus helps in employability.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1611986002	6	4.6	10.6	53	2
2	M1611986001	7.4	6.4	13.8	69	3

CO Attainment on Scale of 3

2.5

Percentage of Students Scored above 60%

50

CO5: To use the techniques skills and modern engineering methods involved in the analysis of structures.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1611986002	6	4.6	10.6	53	2
2	M1611986001	7.4	6.4	13.8	69	3

CO Attainment on Scale of 3

2.5

Percentage of Students Scored above 60%

50


Attainment on Scale of 3

2.50

Percentage Attainment

83.33

  
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