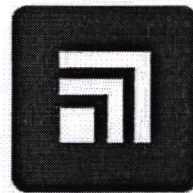


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HIMACHAL PRADESH
NAAC ACCREDITED

Report on PO Attainment

Master of Engineering

(Construction Technology and Management)

Batch 2017

Department of Civil Engineering

Report on PO Attainment
Master of Engineering (Construction Technology and Management)
Batch 2017
Department of Civil Engineering

Dated: 20/07/2020

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:

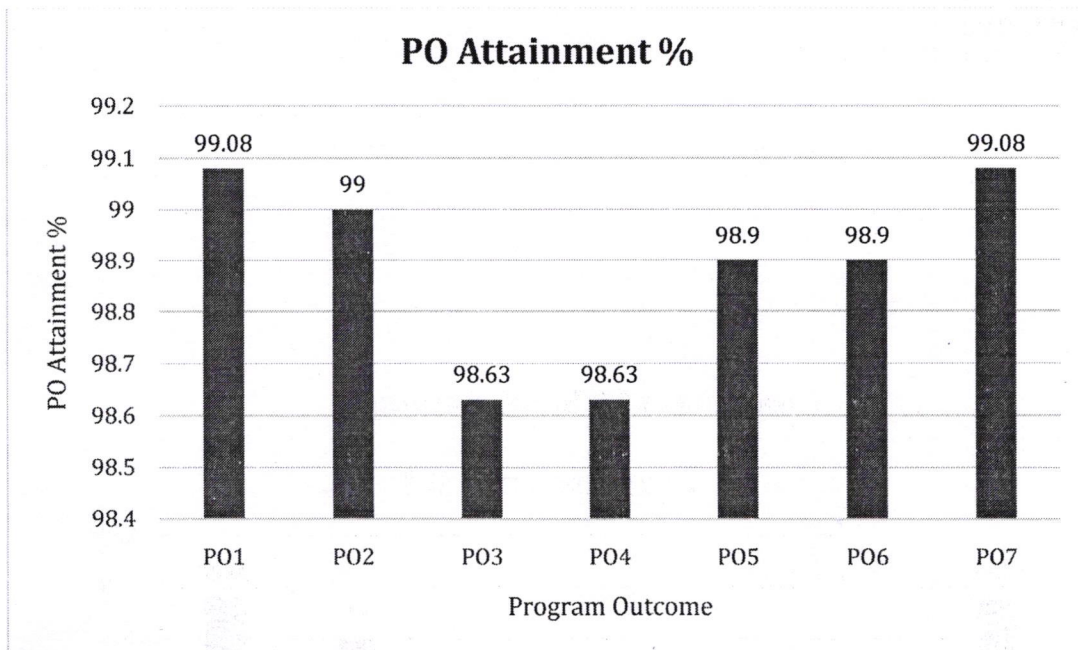
The course outcomes were mapped with the program outcomes of M.E. Construction Technology and Management (Department of Civil Engineering) on the scale of High, Medium and Low. Thereafter, the mapped values were allocated with weights i.e., High: 3; Medium: 2; and Low: 1. The subject wise result was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

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

Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7
MCT6201	89	89	89	89	89	89	89
MCT6302	100	100	100	-	100	100	100
MCT6304	100	100	100	100	100	100	100
MCT4102	100	100	-	-	100	100	100
MCT4104	100	100	100	-	100	100	100
MCT4108	100	100	-	100	100	100	100
MCT4133	100	100	100	100	-	100	100
MCT4129	100	100	100	100	100	100	100
MCT4130	100	100	-	100	-	100	100
MCT4119	100	100	100	100	100	-	100
MCT4135	100	100	-	-	100	-	100
MCT4136	100	-	100	100	100	100	100
POA	99.08	99.00	98.63	98.63	98.90	98.90	99.08

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Representation of PO attainment:



Analysis -

The representation shows that the students of M.E. (Construction Technology and Management) batch 2017 have successfully attained a minimum of 90% in all 7 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
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Chitkara University, Himachal Pradesh
Department of Civil Engineering



Course Outcome Attainment Report

Programme

M.E. [C.T.M]

Batch 2017

Subject

Construction and Environment

Code MCT6201

Semester 1

Subject Assessment: *Construction and Environment*

#	Tools	Task	Task-Id	Marks	Wt (%)	Weighted Marks (%)
1	Internal	1	340	50	100	50
2	External	1	341	50	100	50

Course Outcome: *Construction and Environment*

SNo	Course Outcome	Wt(%)
CO1	Students will be able to explain the major principles of environmental impact assessment in India.	20
CO2	Students will be able to access different case studies/examples of EIA in practice.	20
CO3	Students will develop an understanding of the basic principles underlying international environmental law particularly the concept of sustainable development.	20
CO4	Students will be able to understand the implications of the production resource management and environmental impact of solid waste and Industrial waste management.	20
CO5	Understand and evaluate the global scale of environmental problems.	20

CO-PO Map: *Construction and Environment*

Course Outcome	PO1	PO2	PO3	PO4	PO5	PO6	PO7
Students will be able to explain the major principles of environmental impact assessment in India.	-	M	H	-	M	-	-
Students will be able to access different case studies/examples of EIA in practice.	-	-	H	-	-	M	-
Students will develop an understanding of the basic principles underlying international environmental law particularly the concept of sustainable development.	-	-	-	M	-	-	-
Students will be able to understand the implications of the production resource management and environmental impact of solid waste and Industrial waste management.	-	L	-	-	-	-	M
Understand and evaluate the global scale of environmental problems.	M	-	-	-	-	-	L

Course Outcome Contribution in Each Question

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

CO-Assessment-Marks: *Construction and Environment*

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: Students will be able to explain the major principles of environmental impact assessment in India.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1711986001	6.6	5	11.6	58	2
2	M1711986002	7	6.2	13.2	66	3
3	M1711986003	6.8	6	12.8	64	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.67	66.67

CO2: Students will be able to access different case studies/examples of EIA in practice.

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#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1711986001	6.6	5	11.6	58	2
2	M1711986002	7	6.2	13.2	66	3
3	M1711986003	6.8	6	12.8	64	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.67	66.67

CO3: Students will develop an understanding of the basic principles underlying international environmental law particularly the concept of sustainable development.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1711986001	6.6	5	11.6	58	2
2	M1711986002	7	6.2	13.2	66	3
3	M1711986003	6.8	6	12.8	64	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.67	66.67

CO4: Students will be able to understand the implications of the production resource management and environmental impact of solid waste and Industrial waste management.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1711986001	6.6	5	11.6	58	2
2	M1711986002	7	6.2	13.2	66	3
3	M1711986003	6.8	6	12.8	64	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.67	66.67

CO5: Understand and evaluate the global scale of environmental problems.

#	RollNo	Internal-1[10]	External-1[10]	Total [20]	MO(%)	Scale
1	M1711986001	6.6	5	11.6	58	2
2	M1711986002	7	6.2	13.2	66	3
3	M1711986003	6.8	6	12.8	64	3

CO Attainment on Scale of 3	Percentage of Students Scored above 60%
2.67	66.67

Attainment on Scale of 3	Percentage Attainment
2.67	89.00


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CO Attainment - PO Map: M.E. C.T.M

Subject	Course Outcome	Score	PO1	PO2	PO3	PO4	PO5	PO6	PO7
MCT6201	Students will be able to explain the major principles of environmental impact assessment in India.	2.67	-	2	3	-	2	-	-
MCT6302	Develop basic computer skills necessary for the conduct of research.	3	2	-	-	-	-	2	-
MCT6304	Apply the fundamentals of software construction as outlines in this course to an actual software development project.	3	-	-	2	-	-	2	-
MCT6201	Students will be able to access different case studies/examples of EIA in practice.	2.67	-	-	3	-	-	2	-
MCT6302	The primary characteristics of quantitative research and qualitative research has been discussed to intensifying employability.	3	-	1	-	-	-	3	2
MCT6304	Demonstrate by example the key construction life cycle models.	3	1	2	-	-	-	-	-
MCT6201	Students will develop an understanding of the basic principles underlying international environmental law particularly the concept of sustainable development.	2.67	-	-	-	2	-	-	-
MCT6302	Students should be able to identify a research problem stated in a study.	3	3	-	2	-	3	-	-
MCT6304	Evaluate and provide examples of the key construction technologies in a typical software construction project.	3	-	-	-	2	1	1	-
MCT6201	Students will be able to understand the implications of the production resource management and environmental impact of solid waste and Industrial waste management.	2.67	-	1	-	-	-	-	2
MCT6302	Develop the ability of advanced data analysis techniques.	3	2	-	3	-	-	-	1
MCT6304	Interpret key practical construction considerations such as design languages coding testing quality and reuse.	3	-	-	-	-	-	-	2
MCT6201	Understand and evaluate the global scale of environmental problems.	2.67	2	-	-	-	-	-	1
MCT6302	Understand the classification of data benefits and drawbacks of data.	3	-	2	-	-	-	3	-
MCT6304	Students will be effectively able to develop the skills for employability enhancement.	3	-	-	-	-	2	-	-
MCT4102	Upkeep storing and stacking methods of tools materials used for domain specific works.	3	3	-	-	-	2	-	-
MCT4104	Demonstrate an understanding of key terms theories/concepts and practices within the field of HRM.	3	2	1	-	-	-	-	3
MCT4108	Skill developments to understand the concepts related to Business.	3	3	-	-	-	1	-	-
MCT4133	The students will gain an experience in the implementation of Geotechnical Engineering on engineering concepts which are applied in field Geotechnical Engineering.	3	3	-	2	-	-	-	1
MCT4102	Emergency safety control measures and actions to be taken under emergency situation.	3	-	3	-	-	-	-	3
MCT4104	The students will gain thorough knowledge in the field of job analysis and designing and this will add to the academic qualification to achieve the employability.	3	3	-	-	-	2	-	-

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MCT4108	Demonstrate the roles skills and functions of management.	3	-	3	-	-	-	2	-
MCT4133	The students will get a diverse knowledge of geotechnical engineering practices applied to real life problems of designing of structures.	3	3	-	-	-	-	2	-
MCT4102	Skill development to plan shuttering work within defined scope of work.	3	2	-	-	-	-	1	-
MCT4104	The students will enhance the skills on employee welfare and working conditions that shape their ethical behavior.	3	-	2	-	-	-	-	1
MCT4108	Analyse effective application of PPM knowledge to diagnose and solve organizational problems and develop optimal managerial decisions.	3	-	3	-	-	-	3	-
MCT4133	The students will learn to understand the theoretical and practical aspects of geotechnical engineering along with the design and management applications.	3	-	3	-	2	-	2	-
MCT4102	Work according to personal health safety and environment protocol at construction site	3	-	3	-	-	-	3	-
MCT4104	Provide innovative solutions to problems in the fields of HRM.	3	2	-	-	-	-	3	1
MCT4108	Understand the complexities associated with management of human resources in the organizations and integrate the learning in handling these complexities.	3	3	-	-	1	-	-	3
MCT4133	Develop Skills to determine aims of the ground Investigation.	3	-	3	-	1	-	-	2
MCT4102	Scaffolders training and working methods are the way for employability.	3	-	2	-	-	-	-	1
MCT4104	Be able to identify and appreciate the significance of the ethical issues in HR	3	3	-	2	-	-	3	-
MCT4108	To enhance team working and leadership skills to facilitate employability.	3	-	2	-	-	1	-	2
MCT4133	This can explain the methods of soil improvement.	3	-	2	-	-	-	-	2
MCT4129	To analyze various approaches to construction in relation to their historical and cultural context.	3	3	-	-	-	-	3	-
MCT4130	Learn the basic elements of a steel structure	3	-	3	-	-	-	-	1
MCT4119	Acquire the knowledge disaster management.	3	-	3	-	-	2	-	-
MCT4129	Skill development to work in the field of selection of piles coffer dams quality control of ground water in excavations to produce the employability.	3	-	-	3	-	-	2	-
MCT4130	Learn the fundamentals of structural steel fasteners.	3	2	3	-	-	-	-	2
MCT4119	Understand the vulnerability of ecosystem and infrastructure due to a disaster.	3	-	2	-	-	-	-	1
MCT4129	To enhance the skills to analyze and design R.C.C. slab wall beam and columns.	3	2	-	-	3	-	-	1
MCT4130	Able to design basic elements of steel structure like tension members compression members beams and beam-columns.	3	-	2	-	-	-	3	-
MCT4119	Acquire the knowledge of disaster management Phases.	3	3	-	3	-	1	-	-
MCT4129	Function effectively as a skilled member of an engineering team and enhance employability development.	3	2	-	3	-	3	-	-
MCT4130	Able to design column splices and bases.	3	3	-	-	-	-	2	-
MCT4119	Understand the hazard and vulnerability profile of India.	3	-	-	-	2	-	-	-
MCT4129	Discuss professional responsibility in light of social context of engineering problems.	3	-	1	-	-	-	2	-


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MCT4130	To enhance the skills to analyze and design of simple bolted and welded connections.	3	2	-	-	3	-	-	-
MCT4119	Knowledge about existing global frameworks and existing agreements for employability and skill development.	3	3	-	-	3	-	-	1
MCT4135	Differentiate between the various types of extinguishing agents.	3	-	3	-	-	1	-	-
MCT4136	Explain the causes of damages occurred in the given structures.	3	3	-	-	-	2	-	-
MCT4135	Learn the knowledge of fire behavior to preventing fire and to suppressing fire.	3	1	-	-	-	3	-	2
MCT4136	Select the relevant repair techniques for the damages in the given civil structures with justification	3	1	-	3	-	-	1	-
MCT4135	Knowledge about existing global frameworks and existing agreements for employability and skill development.	3	-	3	-	-	-	-	2
MCT4136	Explain the relevant repair methods for cracks in RCC structures.	3	3	-	-	-	-	2	-
MCT4135	Apply the knowledge of fire behavior to increasing the margin of safety of the firefighter.	3	2	-	-	-	2	-	-
MCT4136	Develop skills to judge the limitations of the design methods used.	3	2	-	-	-	-	-	1
MCT4135	Acquire the knowledge maintenance management.	3	-	3	-	-	-	-	1
MCT4136	To acquire skills in retrofitting and enhance employability development.	3	3	-	-	3	2	-	-

PO Attainment of Subjects: M.E. C.T.M

Subject	PO1	PO2	PO3	PO4	PO5	PO6	PO7
MCT6201	89	89	89	89	89	89	89
MCT6302	100	100	100	-	100	100	100
MCT6304	100	100	100	100	100	100	100
MCT4102	100	100	-	-	100	100	100
MCT4104	100	100	100	-	100	100	100
MCT4108	100	100	-	100	100	100	100
MCT4133	100	100	100	100	-	100	100
MCT4129	100	100	100	100	100	100	100
MCT4130	100	100	-	100	-	100	100
MCT4119	100	100	100	100	100	-	100
MCT4135	100	100	-	-	100	-	100
MCT4136	100	-	100	100	100	100	100
POA	99.08	99.00	98.63	98.63	98.90	98.90	99.08

Signature

Name
(Programme In-charge)

Signature

Name
(Dean/Head)

Head of Department
Department of Civil Engineering
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