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# KERALA TECHNOLOGICAL UNIVERSITY

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Master of Technology (Part Time Course)

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Restructured Curriculum  
Syllabus and Course Plan same as Regular Course

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*Cluster* : *Trivandrum*  
*Branch* : *Civil Engineering*  
*Stream* : *Geotechnical Engineering*  
*Year* : *2016*  
*No. of Credits* : *67*

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**SEMESTER 1- RESTRUCTURED**

**SEMESTER 1**

Examination Slot	Course Number	Name	L-T-P	Internal Marks	End Semester Examination		Credits
					Marks	Duration (hours)	
A	01CE6201	Theoretical Geomechanics	3 - 0 - 0	40	60	3	3
B	01CE6203	Fundamentals of Soil Behavior	3 - 1 - 0	40	60	3	4
C	01CE6205	Earth Pressure and Retaining structures	3 - 1 - 0	40	60	3	4
U	01CE6293	Experimental Geotechniques I	0 - 0 - 2	100			1
		Total	9 - 2 - 2	220	180	-	12

TOTAL CONTACT HOURS : 13

TOTAL CREDITS : 12

**SEMESTER 2- RESTRUCTURED**

Examination Slot	Course Number	Name	L-T-P	Internal Marks	End Semester Examination		Credits
					Marks	Duration (hours)	
A	01CE6202	Advanced Foundation Engineering	3 - 1 - 0	40	60	3	4
B	01CE6204	Soil Dynamics and Machine Foundations	3 - 0 - 0	40	60	3	3
C	01CE6206	Finite Element Analysis for Geomechanics	3 - 0 - 0	40	60	3	3
U	01CE6292	Mini Project	0 - 0 - 4	100		4	2
		Total	9 - 1 - 4	220	180	-	12

TOTAL CONTACT HOURS : 14

TOTAL CREDITS : 12

### SEMESTER 3- RESTRUCTURED

Examination Slot	Course Number	Name	L-T-P	Internal Marks	End Semester Examination		Credits
					Marks	Duration (hours)	
D	01CE6207	Sub-surface investigation & Instrumentation	3 - 0 - 0	40	60	3	3
E		Elective I	3 - 0 - 0	40	60	3	3
S	01CE6999	Research Methodology	0 - 2 - 0	100			2
T	01CE6291	Seminar I	0 - 0 - 2	100			2
		Total	6 - 2 - 2	280	120	-	10

TOTAL CONTACT HOURS : 10

TOTAL CREDITS : 10

Elective I	
01CE6211	Expansive Soils
01CE6213	Rock Mechanics And Tunnel Engineering
01CE6215	Earth And Rock Fill Dams
01CE6217	Application of Computational Methods to Geotechnical Engineering Problems

## SEMESTER 4- RESTRUCTURED

### SEMESTER 4

Examination Slot	Course Number	Name	L-T-P	Internal Marks	End Semester Examination		Credits
					Marks	Duration (hours)	
D		Elective II	3 - 0 - 0	40	60	3	3
E		Elective III	3 - 0 - 0	40	60	3	3
U	01CE6294	Experimental Geotechniques II	0 - 0 - 2	100		2	1
T	01CE7293	Seminar II	0 - 0 - 2	100			2
		Total	9 - 2 - 2	220	120	-	9

TOTAL CONTACT HOURS : 13

TOTAL CREDITS : 9

<b>Elective II</b>	
01CE6212	Reinforced soil and Geosynthetics
01CE6214	Landslide Engineering
01CE6216	Ground Improvement Techniques

<b>Elective III</b>	
01CE6218	Underground excavations
01CE6222	Environmental Geotechniques
01CE6224	Soil Structure Interaction
01CE6226	Special Foundations and structural Design of foundations

## SEMESTER 5- RESTRUCTURED

### SEMESTER 5

Examination Slot	Course Number	Name	L-T-P	Internal Marks	End Semester Examination		Credits
					Marks	Duration (hours)	
A		Elective IV	3 - 0 - 0	40	60	3	3
B		Elective V	3 - 0 - 0	40	60	3	3
W	01CE7293	Project (Phase I)	0 - 0 - 12	50			6
		<b>Total</b>	<b>6 - 0 - 12</b>	<b>130</b>	<b>120</b>	<b>-</b>	<b>12</b>

TOTAL CONTACT HOURS : 18

TOTAL CREDITS : 12

<b>Elective IV</b>	
01CE7211	Earthquake Geotechnical Engineering
01CE7213	Behaviour and testing of Unsaturated soils
01CE7215	Soil Stabilization
01CE7217	Constitutive Modelling in Geomechanics
<b>Elective V</b>	
01CE7219	Geo-environmental and Landfill
01CE7221	Critical State Soil Mechanics
01CE7223	Forensic Geotechnical Engineering

**SEMESTER 6**

**SEMESTER 6**

Examination Slot	Course Number	Name	L-T-P	Internal Marks	End Semester Examination		Credits
					Marks	Duration (hours)	
W	01CE7294	Project (Phase 2)	0 - 0 - 23	70	30		12
		Total	0 - 0 - 23	70	30	-	12

TOTAL CONTACT HOURS : 23

TOTAL CREDITS : 12

**TOTAL NUMBER OF CREDITS: 67**