

**TOTAL COURSE-PROGRAMME OUTCOMES RELATIONSHIP**

COURSE INFORMATION						PROGRAMME OUTCOMES							
Code	Course Name	T	P	Credit	ECTS	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8
<b>FALL SEMESTER</b>													
<b>MUH8001</b>	Scientific Research Techniques and Publication Ethics	3	0	3	8	4	3	4	3	5	5	5	5
<b>MAD7001</b>	Seminar	0	2	0	8	5	5	5	5	5	5	5	5
<b>MAD7003</b>	Doctoral Qualification	0	0	0	30	5	5	5	5	5	5	5	5
<b>MAD7005</b>	Specialized Field Course	5	0	0	2	5	5	5	5	5	5	5	5
<b>MAD7007</b>	Thesis Proposal	0	0	0	30	5	5	5	5	5	5	5	5
<b>MAD7009</b>	Thesis Research	0	1	0	30	5	5	5	5	5	5	5	5
<b>MAD8001</b>	Design of Experiments in Mineral Processing	3	0	3	8	5	5	4	2	3	3	3	2
<b>MAD8003</b>	Environmental Impact Assessment in Mines	3	0	3	8	3	3	3	4	4	2	2	4
<b>MAD7101</b>	Rock Mass Analysis in Mining	3	0	3	8	5	5	5	5	4	5	5	4
<b>MAD7103</b>	Water Disposal and Management in Mines	3	0	3	8	5	5	4	4	5	4	4	5
<b>MAD7105</b>	Performance Prediction of Mechanical Excavators	3	0	3	8	4	4	3	5	4	2	2	3
<b>MAD7107</b>	Measurement and Applications in Underground	3	0	3	8	4	4	3	3	3	2	2	3
<b>MAD7109</b>	Design in Underground Coal Mining	3	0	3	8	4	4	4	3	3	2	2	2
<b>MAD7111</b>	Clean Coal Technologies	3	0	3	8	4	4	3	4	4	3	3	5
<b>MAD7113</b>	Mineral Based Additives	3	0	3	8	5	5	5	5	5	5	5	5
<b>MAD7115</b>	Evaluation Of Process Wastes	3	0	3	8	5	5	5	4	4	3	4	3
<b>MAD7117</b>	Grinding Kinetics	3	0	3	8	5	5	5	2	3	3	3	2
<b>SPRING SEMESTER</b>													

<b>MAD7002</b>	Seminar	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	5	5	5	5	5	5	5
<b>MAD7004</b>	Doctoral Qualification	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	5	5	5	5	5	5	5
<b>MAD7006</b>	Specialized Field Course	<b>5</b>	<b>0</b>	<b>0</b>	<b>2</b>	5	5	5	5	5	5	5	5
<b>MAD7008</b>	Thesis Proposal	<b>0</b>	<b>1</b>	<b>0</b>	<b>2</b>	5	5	5	5	5	5	5	5
<b>MAD7010</b>	Thesis Research	<b>0</b>	<b>1</b>	<b>0</b>	<b>30</b>	5	5	5	5	5	5	5	5
<b>MAD8002</b>	Statistical Methods	<b>0</b>	<b>2</b>	<b>0</b>	<b>6</b>	5	3	4	3	4	2	3	2
<b>MAD8004</b>	Pre-treatment in Mineral Processing	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	4	4	3	5	4	4	3	5
<b>MAD7102</b>	Basic Engineering Structures	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	4	5	3	5	4	5	5
<b>MAD7104</b>	Logistic Systems in Mines	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	5	4	4	5	4	4	5
<b>MAD7106</b>	Rock Cutting Mechanics	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	4	5	5	4	2	2	3
<b>MAD7108</b>	Natural Stone Production and Processing Technologies	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	3	4	3	4	4	2	3	4
<b>MAD7110</b>	Mine Valuation	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	3	5	5	3	4	3	4	4
<b>MAD7112</b>	Advanced Flotation Techniques	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	4	3	4	4	4	3	5
<b>MAD7114</b>	Characterization Of Powder Material	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	5	5	5	5	5	5	5
<b>MAD7116</b>	Extractive Metallurgy of Precious Metals	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	5	5	4	4	3	4	3
<b>MAD7118</b>	Simulation in Mineral Processing	<b>3</b>	<b>0</b>	<b>3</b>	<b>8</b>	5	5	5	2	3	3	3	2