Section - D

Department of Earth Resources Engineering

Program Summary

Streams:	Mining & Mineral Engineering	
Focus Areas:	1. Gem & Jewellery	
	2. Ocean Resources Engineering	
	3. Petroleum Engineering	
	4. Remote Sensing & Geographic Information System	
Minors:	< None >	

		Specialization:		Earth Resources	
		Stream:		Vining and Minera	al Engineering
conc	for seeking amendme	ants to the surrisule			
-	To match the requirer	TO PERSONAL PROPERTY AND ADDRESS OF THE PARTY OF THE PART		sion for Intake 202	20 onwards
follo	wing documents are	furnished:			
	Docum	nent	Yes/No	Prepare	d / Checked by
1	Covering letter		Yes		Dr. AMKB Abeysinghe
2	Credit distribution		Yes	m	Dr. AMKB Abeysinghe
3	Full curriculum		Yes	28 Red	Dr. AMKB Abeysinghe
4	Faculty electives		Yes	all X	Dr. AMKB Abeysinghe
5	Requirements for focu	us area / minor	Yes	201/201	Dr. AMKB Abeysinghe
6	Changes to the modul	les	Yes	1)	Dr. AMKB Abeysinghe
7	Relevant module outli	ines	Yes		Dr. AMKB Abeysinghe
1	Nam	e	(5 senior staff men Signature	Date
	Prof- H-M·R.	Premasiv	(married to the second of the s	Date 11.01.202
2	Nam	e Premasiv naminds	(Signature	Date
3	Prof- H-M-R. Dr S.p. CV	e Premasiv naminda ssanayaks	El Ha	Signature	Date 11.01.2021
3 4	Prof. H.M.R. Dr B.p. CV	Premasiv naminda ssanayake Dissanayak	El Ha	liaumes haumes	11.01.2021. 11.01.2021. 11.01.2021
2 3 4 5	Prof- H-M.R. Dr B.P. CL Dr. A.B. N DA Do. DMDON	Premasiv naminda ssannyake Dissanayake Dissanayak	1634	liaumes haumes	11.01.2021. 11.01.2021. 11.01.2021
2 3 4 5	Prof-H-M·R. Dr B.p. CV Dr.A.B.~ DA Do. DMDON M.A.D.M.G.	Premasivaminda SSANAYAKE Dissanayake Dissanayake Dissanayake Dictorn	1634	liaumes haumes	11.01.2021. 11.01.2021. 11.01.2021
2 3 4 5 6	Prof- H-M·R. Dr B.p. CV Dr.A.B.~ DA Dr. D.M.DOW M.A.D.M.G. Chairperson DAC [FAC	Premasive Aminds SSANAYAKE Dissanayake Dissanayake Dissanayake Diskecom Emember] Depringhe The above changes	1634	liaumes haumes	Date 11.01.2021. 11.01.2021. 11.01.2021 11.01.2021
2 3 4 5 6	Prof- H-M·R· Dr B·P· CV Dr. A·B· A· DA Dr. D. M.G. Chairperson DAC [FAC Dr. AMKB Ab	Premasive Aminds SSANAYAKE Distanayake Dictana Emember] Dievsinghe the above changes ent	1634	liaumes haumes	Date 11.01.2021. 11.01.2021. 11.01.2021 11.01.2021
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2 3 4 5 6 6 7 7	Prof - It -M · R · Dr B· P · C l Dr. A· B · P · DA Dr. AMKB Ab Dr. AMKB Ab Dr. GVI Samar Head, I Earth Reso	Premasive Premas	Makelyo Anna	liaumes haumes	Date 11.01.2021. 11.01.2021. 11.01.2021 11.01.2021

Intake: 2020 onwards Specilization Earth Resources Engineering
Stream Mining and Mineral Engineering

Summary of the Credit Distribution

		Ex	isting						Pro	posed			
Semester	С	E	0	Total	GPA	NGPA	Semester	С	E	0	Total	GPA	NGPA
1	16.0	0.0	0.0	16.0	15.0	1.0	1	15.0	0.0	0.0	15.0	15.0	0.0
2	18.0	0.0	3.0	21.0	18.0	3.0	2	18.0	0.0	0.0	18.0	16.0	2.0
3	21.5	0.0	3.5	25.0	22.0	3.0	3	14.0	8.0	0.0	22.0	22.0	0.0
4	21.5	0.0	2.0	23.5	23.5	0.0	4	22.0	0.0	0.0	22.0	22.0	0.0
5	17.5	0.0	10.5	28.0	28.0	0.0	5	20.0	18.0	0.0	38.0	38.0	0.0
Ind. Training	6.0	0.0	0.0	6.0	0.0	6.0	Ind. Training	6.0	0.0	0.0	6.0	0.0	6.0
6	10.0	0.0	2.0	12.0	7.0	5.0	6	12.0	0.0	0.0	12.0	8.0	4.0
7	16.5	17.5	7.0	41.0	40.0	1.0	7	16.0	18.0	0.0	34.0	34.0	0.0
8	16.0	16.5	16.0	48.5	47.5	1.0	8	12.0	18.0	0.0	30.0	30.0	0.0
	143.0	34.0	44.0	221.0	201.0	20.0	// a	135.0	62.0	0.0	197.0	185.0	12.0
					-			l-					
Num	ber of Mo	odules		98			Num	ber of M	ndules		72		

Accreditation Requirements

Categorizations	Recommended IESL Minimum	Existing	Proposed
Mathematics, Basic Sciences and Computing [MSC]	25.0	32.0	28.0
Engineering Sciences and Engineering Design	75.0		
Engineering Science [E]		60.0	8.0
Engineering discipline specialisation [EP] - a minimum of 25		24.0	54.0
Engineering design & projects [DP] - a minimum of 25		6.0	25.0
Complementary Studies (20)			
Management, Engineering economics & communication [M]	15.0	16.0	15.0
Humanities, social sciences, arts & Professional ethics [H]	5.0	5.0	5.0
Additional credits for innovation and field specific goals	10.0		
TOTAL	130.0	143.0	135.0

EUGS Template last updated on 2020-12 page 1 of 9

	2020 onwards	Specia	lization:	Earth Re	sources E	ngineerir	g			
	Details of the Curriculum	Str	eam:		nd Miner			_		
	Details of the Carriculant	50	Time all							
Module		è .	[Hours	/Week]	Credits	offered	No	rm	Evalua	tion 9
Code	Module Name	C/E/O	-	Lab /						
cour		3 -	Lecture	Tute	GPA	NGPA	GPA	NGPA	CA	WE
	Semester 1		Specializ	ation rec	uirement		15	.0		_
E1023	Fluid Mechanics	C	2	2/4	2.0				20	80
CS1033	Programming Fundamentals	C	2	2	3.0		1	1	20	80
E1040	Electrical Fundamentals	C	2	2/4	2.0		77,0496		20	80
EL1030	Language Skills Enhancement [S1 & S2]	C	0	2	1.0		15.0		100	0
MA1014	Mathematics	C	5/2	1	3.0			3	20	80
ME1033	Mechanics	С	2	2/4	2.0			- 3	20	80
MT1023	Properties of Materials	С	3 Total	2/4	2.0		15.0	0,0	20	80
			IOtal		15.0	0.0	15.0	0.0		_
	Semester 2		Specializ	ation rec	uirement		18	1.0		
IM-1	Humanities Elective I	С	2	0	2.0		- 41		100	0
L1030	Language Skills Enhancement [S1 & S2]	C	0	2	1.0			3	100	0
ER1014	Geology	C	2	2	3.0			- 3	30	70
ER1040	Introduction to Mining & Mineral Engineering	C	2	0	2.0		16.0	2.0	30	70
MA1024	Methods of Mathematics	C	5/2	1	3.0		10.0	2.0	3.0	70
ER1050	Basic Mine Thermodynamics	C	2	0	2.0				30	70
ME1091	Engineering Drawing & Computer Aided Modeling	С	- 1	4	3.0				100	0
ER1902	Introduction to Engineering Design & Workshop Technology	C	1	2		2.0			60	40
			Total		16.0	2.0	16.0	2.0		
	-model allo-re	_						_		_
OT1012	Semester 3	0	Specializ		uirement		14	.0	20	70
CE1813 CE2063	Mechanics of Materials	C	2	0	2.0				30	70
CS2813	Surveying I	C	1	2	2.0				60	70
MA2014	Visual Programming Differential Equations	C	2	0	2.0		14.0	8	30	70
VIA2014 VIA2024	Calculus	C	2	0	2.0			ŝ	30	70
ER2110	Rock Blasting and Explosives Engineering	C	5/2	2/2	3.0			8	30	70
ER2420	Introduction to Ocean Resources Engineering	E	2	0	2.0				30	70
ER2631	Elementary Gemmology	E	3/2	2/2	2.0			8	30	70
ER2034	Principles of RS and GIS	E	3/2	2/2	2.0			1	30	70
ER2054	Introduction to Petroleum Engineering	E	2	0	2.0			- 5	30	70
i i	2		Total		22.0	0.0	14.0	0.0		
	Semester 4				uirement		27	2.0		
CE2143 HM-2	Surveying II Humanities Elective II	C	2	0	3.0	_		3	30 100	70
HM-2 FR2611		C	2	2	3.0	_			30	70
ER2643	Petrology and Structural Geology Analytical Methods and Environmental Engineering Concepts				3.0	_				
ER2084		0	5/2	2/2			1	9	30	
		C	5/2	2/2			22.0		40	
	Mineral Processing Engineering	C	7/2	2/2	4.0		22.0		30	70
ER2031	Mineral Processing Engineering Mining Method & Mine Development	C C		2/2 0	4.0 3.0		22.0	1	30 40	70
ER2031 MA2034	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra	C	7/2	2/2	4.0		22.0		30	70 60 70
ER2031 MA2034 MA3014	Mineral Processing Engineering Mining Method & Mine Development	C C C	7/2 3 2	2/2 0 0	4.0 3.0 2.0	0.0	22.0	0.0	30 40 30	60 70 60 70
ER2031 MA2034	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra	C C C	7/2 3 2 2 Total	2/2 0 0 0	4.0 3.0 2.0 2.0 22.0		200000	0.0	30 40 30	70 60 70
ER2031 MA2034 MA3014	Minner Al Processing Engineering Minning Method & Minne Development Linear Algebra Applied Statistics Semester 5	C C C C	7/2 3 2 2 Total	2/2 0 0 0	4.0 3.0 2.0 2.0 22.0 22.0		22.0	0.0	30 40 30 30	70 60 70 70
ER2031 MA2034 MA3014 CE2813	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics	0 0 0 0	7/2 3 2 2 Total Specializ 5/2	2/2 0 0 0 0	4.0 3.0 2.0 2.0 22.0 22.0		22.0		30 40 30 30 30	70 60 70 70
ER2031 MA2034 MA3014 MA3014 CE2813 ER3014	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy	0 0 0	7/2 3 2 2 Total Specializ 5/2 5/2	2/2 0 0 0 0 ation rec 2/2 2/2	4.0 3.0 2.0 2.0 22.0 22.0 uirement 3.0 3.0		22.0		30 40 30 30 30 30	70 60 70 70 70
ER2031 MA2034 MA3014 CE2813 ER3014 ER3070	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral Exploration	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7/2 3 2 2 Total Specializ 5/2 5/2 5/2	2/2 0 0 0 0 ation rec 2/2 2/2 2/2	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0		22.0		30 40 30 30 30 30 30	70 60 70 70 70
ER2031 MA2034 MA3014 EE2813 ER3014 ER3070 ER4104	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 5/2 2	2/2 0 0 0 0 ation rec 2/2 2/2 2/2 0	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0		22.0		30 40 30 30 30 30 30 30 30	70 60 70 70 70 70
ER2031 MA2034 MA3014 EE2813 ER3014 ER3070 ER4104 MA3024	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 2 2	2/2 0 0 0 0 2/2 2/2 2/2 0 0	3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0		22.0		30 40 30 30 30 30 30 30 30 30 30	70 60 70 70 70 70 70 70
ER2031 MA2034 MA3014 EE2813 ER3014 ER3070 ER4104 MA3024 MN3043	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 5/2 2 2 3	2/2 0 0 0 0 ation rec 2/2 2/2 2/2 0 0	3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0 3.0		22.0		30 40 30 30 30 30 30 30 30 30 30	70 60 70 70 70 70 70 70 70
ER2031 MA2034 MA3014 MA3014 ER3014 ER3070 ER4104 MA3024 VIN3043 VIN3053	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 2 2	2/2 0 0 0 0 2/2 2/2 2/2 2/2 0 0 0	3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70
R2031 MA2034 MA3014 MA3014 E22813 ER3010 ER3070 ER4104 MA3024 MN3053 ER3880	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics Insural Accounting Industrial Management and Marketing Engineer and Society (5 & & Soi]	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 5/2 2 2 3 3 0	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0	3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70
R2031 MA2034 MA3014 MA3014 E2813 ER3014 ER3070 ER4104 MA3024 MN3053 ER3880 ER3320	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [85 & 86] Plant Design and Value Addition to Minerals	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 2 2 2 3 3 0	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0 0	3.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 ER2014 ER3010 ER4104 MA3024 MN3043 MN3053 ER3880 ER3880 ER3820 ER3820 ER3820	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Extonomic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society (\$3 & \$6\$) Plant Design and Value Addition to Minerals Construction Engineering Practice	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 5/2 2 2 3 3 0	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 ER3014 ER3070 ER4104 MA3024 MN3043 MN3053 ER3880 ER3880 ER3870 ER3704	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [55 & 56] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Tinage Processing and Photogrammetry	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 2 2 2 3 3 0 1	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0 0 2 2/2 2/	3.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 MA3014 ER3014 ER3070 ER4104 MA3024 MN3053 ER3880 ER3320 ER4714 ER3704 ER3714	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numeroal Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society (53 & 56) Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewelley Proclust Development	C C C C C C C C E E E E E E	7/2 3 2 Total Specializ 5/2 5/2 5/2 2 2 3 3 0 1 5/2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 60 70 70 70 70 70 70 70 70 70 70 70 70 70
ER2031 MA2034 MA3014 EE2813 ER3014 ER3070 ER4104 MA3024 MN3053 ER3880 ER3320 ER4714 ER3704 ER3704	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallitrgy Extonoution Metallitrgy Extonoution Metallitrgy Extonoution Metallitrgy Sumerical Methods Business Economics Internal and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society 15' & \$6' 5] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewellery Products Development Petvoleum Exploration and Drilling Engineering	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 2 2 2 3 3 0 1	2/2 0 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		22.0		30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 EE2813 ER3014 ER3070 ER4104 MA3024 MN3053 ER3880 ER3320 ER4714 ER3704 ER3704	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numeroal Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society (53 & 56) Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewelley Proclust Development	C C C C C C C C E E E E E E E	7/2 3 2 Total Specializ 5/2 5/2 5/2 2 2 3 3 0 1 5/2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 22.0 22.0 3.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		22.0		30 40 30 30 30 30 30 30 30 30 30 3	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 EE2813 ER3014 ER3070 ER4104 MA3024 MN3053 ER3880 ER3320 ER4714 ER3704 ER3704	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallitrgy Extonoution Metallitrgy Extonoution Metallitrgy Extonoution Metallitrgy Sumerical Methods Business Economics Internal and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society 15' & \$6' 5] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewellery Products Development Petvoleum Exploration and Drilling Engineering	C C C C C C C C E E E E E E E	7/2 3 2 2 Total Specializ 5/2 5/2 2 2 2 3 3 0 1 5/2 2 2 2 2 2 2 2 2 3 3 0 1 5/2 2 2 2 2 2 2 3 3 6 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	2/2 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3		20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 3	70 70 70 70 70 70 70 70 70 70 70 70 70 7
R2031 MA2034 MA3014 MA3014 R3010 R4104 MA3024 MA3024 MA3024 MA3023 R3880 R3880 R4714 R3704 R3704 R3714 R3704 R3704 R3520	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Machanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [\$5 & \$6] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewelley Products Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training	C C C C C C C E E E E E E E E E E	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 2 3 0 1 5/2 2 2 2 Total Total	2/2 0 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
R2031 MA2034 MA3014 MA3014 R3010 R4104 MA3024 MA3024 MA3024 MA3023 R3880 R3880 R4714 R3704 R3704 R3714 R3704 R3704 R3520	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Extonomic Mineral and Mineral Exploration Mine Safrty and Legislation Nime Safrty and Legislation Nimes Safrty and Legislation Numerical Methods Business Economics und Financial Accounting Industrial Management and Marketing Engineer and Society [55 & 56] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewellery Products Development Petroleum Exploration and Prilling Engineering Coastal Hydrodynamics	C C C C C C C C E E E E E E E	7/2 3 2 2 Total 5/2 5/2 5/2 2 2 3 0 1 5/2 2 2 7 Total Specializ	2/2 0 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 22.0 22.0 22.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 3	70 70 70 70 70 70 70 70 70 70 70 70 70 7
R2031 (A2034 (A3014 (A3014 (A3014 (A3014 (A3014 (A3024 (A3	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Machanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [\$5 & \$6] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewelley Products Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training	C C C C C C C E E E E E E E E E E	7/2 3 2 2 Total Specializ 5/2 5/2 5/2 2 3 0 1 5/2 2 2 2 Total Total	2/2 0 0 0 0 0 2/2 2/2 2/2 0 0 0 0 2 2 2/2 2/	4.0 3.0 2.0 2.0 22.0 22.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 ER3014 ER3010 ER4104 MA3024 MN3043 MN3053 ER3880 ER3880 ER3704 ER3704 ER3704 ER3704 ER3704	Mineral Processing Engineering Mining Method & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Extonomic Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [53 & 85] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Pewellery Products Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training Industrial Training Industrial Training	C C C C C C C E E E E E E E E E E	7/2 3 2 2 Total Specializ 5/2 2 2 3 3 0 1 5/2 2 2 7 Total Specializ Total	2/2 0 0 0 0 0 2/2 2/2 2/2 0 0 0 0 0 2 2 2/2 2/	40 30 20 220 220 30 30 30 20 20 20 30 30 30 30 30 30 30 30 30 30 30 30 30	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
IR2031 4A2034 4A3014 4A3014 4A3014 4A3014 4A3014 4A3024	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numeral Methods and Financial Accounting Industrial Management and Marketing Engineer and Society (5% & Só) Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Profogrammetry Jewellery Products Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training Industrial Training Industrial Training	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 2 3 3 0 1 5/2 2 2 Total Specializ 5/2 7 Total	2/2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 60 70 70 70 70 70 70 70 70 70 70 70 70 70
IR2031 AA2034 AA3014 AA	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [85 & 86] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewellery Products Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training Industrial Training Semester 6 Design Project [86 & 87]	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 7 Total Specialiti 5/2 5/2 5/2 2 2 3 0 1 1 5/2 2 7 Total Specialiti Total Specialiti Specialiti Specialiti Specialiti Specialiti Total	2/2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.0 3.0 2.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 60 70 70 70 70 70 70 70 70 70 70 70 70 70
IR2031 AA2031 AA3014 AA3014 AA3014 IR203014 IR203014 IR203016 IR20	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral and Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society [35 & 86] Plant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewellery Products Development Petroleum Engineering Practice Industrial Training Industrial Training Industrial Training Semester 6 Design Project [36 & 87] Mine Surveying, Planning and Design [56 & 87] Mine Surveying, Planning and Design [56 & 87]	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 Total Specializ 5/2 5/2 2 3 3 0 1 5/2 2 2 Total Specializ 5/2 7 Total	2/2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	22.0 20.0 20.0 20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
IRR2031 (AA2024 (AA3014 (AA301	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society (53 & 86) Hant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewelley Proclusto Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training Industrial Training Industrial Training Semester 6 Design Project [56 & 87] Mine Surveying, Planning and Design [56 & 87] Mine Vernition	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 7 Total Specializ 5/2 5/2 2 2 3 3 0 1 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 2	2/2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7
ER2031 MA2034 MA3014 MA3014 MA3014 ER3014 ER3014 ER3010 ER3104 MA3024 MA3024 MA3023 ER3104 ER	Mineral Processing Engineering Mining Methods & Minin Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Extraction Metallurgy Extraction Metallurgy Extraction Metallurgy Sometime of Mining States of	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 7 Total Specialiti 5/2 5/2 5/2 2 2 3 0 1 1 5/2 2 7 Total Specialiti Total Specialiti Specialiti Specialiti Specialiti Specialiti Total	2/2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 60 70 70 70 70 70 70 70 70 70 70 70 70 70
IRR2031 (AA2024 (AA3014 (AA301	Mineral Processing Engineering Mining Methods & Mine Development Linear Algebra Applied Statistics Semester 5 Soil Mechanics Extraction Metallurgy Economic Mineral Exploration Mine Safety and Legislation Numerical Methods Business Economics and Financial Accounting Industrial Management and Marketing Engineer and Society (53 & 86) Hant Design and Value Addition to Minerals Construction Engineering Practice Digital Image Processing and Photogrammetry Jewelley Proclusto Development Petroleum Exploration and Drilling Engineering Coastal Hydrodynamics Industrial Training Industrial Training Industrial Training Semester 6 Design Project [56 & 87] Mine Surveying, Planning and Design [56 & 87] Mine Vernition	C C C C C C C C C C C C C C C C C C C	7/2 3 2 2 7 Total Specializ 5/2 5/2 2 2 3 3 0 1 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 5/2 2 2 2	2/2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	4.0 3.0 2.0 2.0 2.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0 3	0.0	20.0	0.0	30 40 30 30 30 30 30 30 30 30 30 30 30 30 30	70 70 70 70 70 70 70 70 70 70 70 70 70 7

EUGS Template last updated on 2020-12 page 2 of 9

Intake:	2020 onwards	Specia	lization:	Earth Re	sources E	rces Engineering					
	Semester 7		Specialization req				16	5.0			
ER3203	Design Project [S6 & S7]	C	0	2	1.0				100	0	
ER4014	Rock Mechanics	C	5/2	2/2	3.0		1		40	60	
ER4034	Hydrogeology and Engineering Geology	C	3	.0	3.0		1		30	70	
ER4094	Plant Performance and Process Modelling	C	5/2	2/2	3.0		16.0		30	70	
ER4084	Mine Surveying, Planning and Design [S6 & S7]	C	3/2	2/2	2.0			- 5	30	70	
ER4203	Research Project [S7 & S8]	C	0	4	2.0		1		100	0	
MN4023	Engineering Economics	C	2	0	2.0		1		30	70	
ER4351	Formation Evaluation and Resevoir Engineering	E	5/2	2/2	3.0				40	60	
ER4323	GPS and Space Technology	E	2	2	3.0		1		30	70	
ER4434	Marine Mineral Exploration and Hydrography	E	2	2	3.0		1		30	70	
ER4140	Mine Mechanization and Automation	E	3	0	3.0		1		30	70	
ER4150	Advanced Electrochemistry	E	5/2	2/2	3.0		1		30	70	
ER4301	Advanced Gemmology	E	2	2	3.0		1		40	60	
	2000		Total		34.0	0.0	16.0	0.0			
	Semester 8		Specialization requirement				11	0.0			
ER 3044	Mine Machinery & Design of Mineral Transport Systems	С	3	1 0	3.0		-		30	70	
ER4074	Mineral Economics & Ore Reserve Modelling	C	5/2	2/2	3.0		10000000		40	60	
ER4131	Mine Waste Management and Rehabilitation	C	5/2	2/2	3.0	-	12.0	2	30	70	
ER4203	Research Project [S7 & S8]	C	0	6	3.0		1		100	0	
ER4721	Tunnel Design and Engineering	E	5/2	2/2	3.0				40	60	
ER4470	Product Development and Nanotechnology	E	5/2	2/2	3.0		i		30	70	
ER4314	GIS and Spatial Statistics	E	2	2	3.0		1	3	40	60	
ER4461	Petroleum Production and Down Stream Processes	E	5/2	2/2	3.0		1	- 8	40	60	
ER4513	Jewellery Production Technology	E	2	2	3.0		1		50	50	
ER4254	Offshore Mining and Project Design	E	2	2	3.0		1	3	30	70	
			Total	-	30.0	0.0	12.0	0.0			

Total credit requirement for the Specialization	135.0
Faculty/Specialization Electives beyond the specialization requirements [refer faculty electives table]*	15.0
TOTAL CREDIT REQUIREMENT FOR GRADUATION	150.0

Code	Module Name	Semeter	Time all		Cn	edits	Offered to	Evalua	tion %
Cour	noune in the	\$	Lecture	Lab / Tute	GPA	NGPA	Oncicuto	CA	WE
								1	

EUGS Template last updated on 2020-12 page 3 of 9

2020 onwards	Specialization:		Earth R	esource	s Engine	ering	
Madula	Nama	Hours	/Week	Cr		Eval	ıation
Module	Ivame	Lecture	Lab/Tute	GPA	NGPA	CA%	WE%
	FACULTY ELF	ECTIVI	ES				
1	Semester	1				V	
	Camaatau	1					
1	Semester	2	6		1		
	Semester	3					
Elementary Gemmology	Jeniestei		2/2	2.0		30	70
Subsurface Ventilation		2	0	2.0		30	70
	Somostor	1					
	Semester	+	ľ				ľ
	Semester	5					
Petroleum Engineering Upstrea		3	0	3.0		40	60
	997 (1999) 1999 1997 1997 1997 1997 1997 1997						
					,		
	Semester	6					
	Semester						
	Semester	7					
Sustainable Consumption of Ea		2	2	3.0		60	40
	Semester	8					
Remote Sensing and GIS for E		2	2	3.0		30	70
	Elementary Gemmology Subsurface Ventilation Petroleum Engineering Upstre	Semester Semester Semester Semester Semester Elementary Gemmology Subsurface Ventilation Semester Petroleum Engineering Upstream Processes Semester Semester Semester Semester	FACULTY ELECTIVE Semester 1 Semester 2 Semester 3 Elementary Gemmology 3/2 Subsurface Ventilation 2 Semester 4 Semester 5 Petroleum Engineering Upstream Processes 3 Semester 6 Semester 7 Sustainable Consumption of Earth Resources 2 Semester 8	Hours/Week Lecture Lab/Tute	Module Name	Hour-Week Credits Lab/Tute GPA NGPA	Hour-Week Credits Evals Lecture Lab Tute GPA NGPA CA%

Intake:	2020 onwards	Specialization:			4	Earth Res	sources En	gineering			
Code	1	Module Name	Catagory	Hours	s/Week	Cr	edits	Evalı	uation	Comeston	Credits
Code		Module Name	Category	Lecture	Lab/Tute	GPA	NGPA	CA%	WE%	Semester	required
T.	D										
		ng and Geographic Information System		2/2	2/2	2.0		20	70	0	
ER2034	Principles of RS ar	denie turiou	C	3/2	2/2	2.0		30	70	Semester 3	
ER2054		roleum Engineering	C	2	0	2.0		30	70	Semester 3	-
ER3704		essing and Photogrammetry	C	2	2	3.0		30	70	Semester 5	13.0
ER4323	GPS and Space Te		C	2	2	3.0		30	70	Semester 7	
ER4314	GIS and Spatial St	atistics	C	2	2	3.0		40	60	Semester 8	
	Focus area - Oo	cean Resources Engineering									
ER2420		ean Resources Engineering	С	2	0	2.0	T	30	70	Semester 3	
ER2054	POLICE TO A TO A STATE OF THE S	roleum Engineering	C	2	0	2.0		30	70	Semester 3	
ER3520	Coastal Hydrodyna		C	2	2	3.0		30	70	Semester 5	13.0
ER4434		ploration and Hydrography	С	2	2	3.0		30	70	Semester 7	
ER4254	Offshore Mining a	nd Project Design	С	2	2	3.0		30	70	Semester 8	
	Focus area	- Petroleum Engineering									
ER2054	Introduction to Pet	roleum Engineering	C	2	0	2.0		30	70	Semester 3	
ER2420	Introduction to Oc	ean Resources Engineering	C	2	0	2.0		30	70	Semester 3	
ER3701	Petroleum Explora	tion and Drilling Engineering	С	5/2	2/2	3.0		30	70	Semester 5	13.0
ER4351	Formation Evaluat	ion and Resevoir Engineering	C	5/2	2/2	3.0		40	60	Semester 7	
ER4461	Petroleum Product	ion and Down Stream Processes	C	5/2	2/2	3.0		40	60	Semester 8	
	Focus are	a - Gem and Jewellery	-								
ER2631	Elementary Gemm	ITALY.	C	3/2	2/2	2.0		30	70	Semester 3	
ER2034	Principles of RS ar		C	3/2	2/2	2.0		30	70	Semester 3	
ER3714	Jewellery Products	Development	C	2	2	3.0		50	50	Semester 5	13.0
ER4301	Advanced Gemmo	logy	C	2	2	3.0		40	60	Semester 7	
ER4513	Jewellery Producti	on Technology	C	2	2	3.0		50	50	Semester 8	

EUGS Template last updated on 2020-12 page 5 of 9

CURRICULUM REVISION APPLICATION | Faculty of Engineering 6 Changes to Modules

 Intake:
 2020 onwards
 Specialization:
 Earth Resources Engineering

 Stream

 Mining and Mineral Engineering

CHANGES TO THE MODULES

1	INTRODUCTION OF NEW MODULES					
Code	Module Title	Credits	C/E/O	GPA / NGPA	Sem.	Requisites or Reasons
ER1040	Introduction to Mining & Mineral Engineering	2.0	С	GPA	2	
ER1050	Basic Mine Thermodynamics	2.0	С	GPA	2	
ER2110	Rock Blasting and Explosives Engineering	3.0	С	GPA	3	
ER2420	Introduction to Ocean Resources Engineering	2.0	E	GPA	3	
ER2631	Elementary Gemmology	2.0	E	GPA	3	
ER2611	Petrology and Structural Geology	3.0	С	GPA	4	
ER2643	Analytical Methods and Environmental Engineering Concepts	3.0	С	GPA	4	
ER2084	Mineral Processing Engineering	4.0	С	GPA	4	
ER2031	Mining Method & Mine Development	3.0	С	GPA	4	
ER3070	Economic Mineral and Mineral Exploration	3.0	С	GPA	5	
ER3880	Engineer and Society	1.0	С	GPA	5	
ER3320	Plant Design and Value Addition to Minerals	3.0	E	GPA	5	
ER3701	Petroleum Exploration and Drilling Engineering	3.0	E	GPA	5	ER 2054
ER4084	Mine Surveying, Planning and Design	3.0	С	GPA	6/7	
ER3913	Geology Field Visits and Camp	2.0	С	NGPA	6	
ER3923	Mine Surveying and Ventilation Field Camp	2.0	С	NGPA	6	
ER4094	Plant Performance and Process Modelling	3.0	С	GPA	7	
ER4351	Formation Evaluation and Reservoir Engineering	3.0	E	GPA	7	ER3701
ER4323	GPS and Space Technology	3.0	E	GPA	7	ER2034
ER4434	Marine Mineral Exploration and Hydrography	3.0	E	GPA	7	ER3520
ER4140	Mine Mechanization and Automation	3.0	E	GPA	7	
ER4150	Advanced Electrochemistry	3.0	E	GPA	7	ER3014
ER4301	Advanced Gemmology	3.0	Е	GPA	7	ER2631
ER4034	Hydrogeology and Engineering Geology	3.0	С	GPA	7	
ER4074	Mineral Economics & Ore Reserve Modeling	3.0	С	GPA	8	
ER4721	Tunnel Design and Engineering	3.0	E	GPA	8	
ER4470	Product Development and Nanotechnology	3.0	Е	GPA	8	
ER4461	Petroleum Production and Down Stream Processes	3.0	E	GPA	8	ER4351
ER4513	Jewellery Production Technology	3.0	Е	GPA	8	ER3714

EUGS Template last updated on 2020-12 page 6 of 9

2	REMOVAL OF EXISTING MODULES					
Code	Module Title	Credits	C/E/O	GPA / NGPA	Sem.	Requisites or Reasons
MN1012	Engineering in Context	1.0	С	NGPA	1	
ER1023	Introduction to Oceanography	2.0	С	GPA	2	
ME1812	Basic Thermal Sciences	2.0	С	GPA	2	
ER1703	Analytical Methods	2.0	0	GPA	2	3
MN1030	Entrepreneurship Skill Development	2.0	0	NGPA	2/3	
ER2013	Principles of Gemmology	2.5	С	GPA	3	
ER2023	Principles of Environmental Engineering	1.5	С	GPA	3	
ER2041	Industrial Rock Blasting	2.0	С	GPA	3	
EL2952	Language Skills Enhancement III	2.0	С	NGPA	3	
ER2063	Geochemistry for Mineral Exploration	2.0	С	GPA	4	
ER2073	Optical Mineralogy and Petrology	2.5	С	GPA	4	
ER2083	Mineral Engineering I	2.5	С	GPA	4	
ER2093	Geophysics for Mineral Exploration	2.0	С	GPA	4	
ER2101	Mine Development	2.0	С	GPA	4	
MN2010	Entrepreneurial Leadership	2.0	0	GPA	4	
ER3033	Mining Methods	2.0	С	GPA	5	
ER3700	Petroleum Exploration and Basin Analysis	2.5	0	GPA	5	
MN3010	Multidisciplinary Design, Innovation & Venture Creation	2.0	0	GPA	5	
ER3022	Mine Surveying	2.0	С	GPA	6	
ER3063	Economic Geology	2.0	С	GPA	6	
ER3053	Structural & Field Geology	2.0	С	GPA	6	
ER3912	Geology Field Camp	1.0	С	NGPA	6	
ER3922	Mine Surveying Field Camp	1.0	С	NGPA	6	
ER3933	Mineral Exploration Field Camp	1.0	С	NGPA	6	
ER3903	Industrial Visits	1.0	0	NGPA	6	
ER3942	Oceanography Field Studies	1.0	0	NGPA	6	
ER4042	Mineral Engineering II	3.0	С	GPA	7	
ER3950	Scientific Writing and Presentation Skills	1.0	С	NGPA	7	
ER4083	Mine Planning and Design	2.5	С	GPA	7	
ER4290	Petroleum Drilling and Formation Evaluation	2.5	E	GPA	7	
ER4350	Petroleum Reservoir Engineering & Project Design	2.5	E	GPA	7	
ER4223	Hydrogeology and Groundwater Modeling	3.0	Е	GPA	7	
ER4433	Marine Surveying	2.0	E	GPA	7	
ER4512	Jewellery Production Technology	3.0	Е	GPA	7	
ER4522	Fashioning of Gemstones	2.0	E	GPA	7	
MN3020	Entrepreneurship Business Basics	3.0	0	GPA	7	

EUGS Template last updated on 2020-12 page 7 of 9

MN4800	Supply Chain Management	2.0	0	GPA	7	
MN4042	Technology Management	2.0	0	GPA	7	
ER4033	Engineering Geology	2.5	С	GPA	8	
ER4073	Mineral Economics	2.0	С	GPA	8	
ER4093	Plant Performance	2.0	С	GPA	8	
MN4900	Professional Ethics	1.0	С	NGPA	8	
CH4350	Petroleum Refining and Petrochemical Industry	2.0	E	GPA	8	
ER4243	Natural Disaster Management	2.0	E	GPA	8	
ER4460	Petroleum Production	2.0	Е	GPA	8	
ER4271	Advanced Gemmology	2.5	E	GPA	8	
ER4322	Space Technology and Navigation Systems	2.0	E	GPA	8	
ER4532	Jewellery Production Management	3.0	E	GPA	8	
ER4720	Tunnel Engineering and Design	2.0	0	GPA	8	
MA4013	Linear Models and Multivariate Statistics	3.0	0	GPA	8	
MA3030	Operational Research	2.0	0	GPA	8	
MN4010	Business Plan Development	2.0	0	GPA	8	
MN4072	Small Business Management and Entrepreneurship	2.0	0	GPA	8	
MN4150	Project Management	2.0	0	GPA	8	

3	CHANGES TO THE OFFERING SEMESTER						
Code	Module Title	Credits	C/E/O	GPA / NGPA	Sem.	Previously offered Sem	Requisites or reasons
ER2054	Introduction to Petroleum Engineering	2.0	Е	GPA	3	4	
ER4104	Mine Safety and Legislation	2.0	С	GPA	5	8	
ER4714	Construction Engineering Practice	3.0	E	GPA	5	8	
ER4024	Mine Ventilation	3.0	С	GPA	7	6	
ER3044	Mine Machinery & Design of Mineral Transport Systems	3.0	С	GPA	8	5	
ER4314	GIS and Spatial Statistics	3.0	E	GPA	8	7	ER2034

EUGS Template last updated on 2020-12 page 8 of 9

Module Title	Credits	c/r/o	GPA	Sem.	New		Previous		Reasons
Wodule True	Credits	C/E/O	/NGPA	sem.	CA	WE	CA	WE	Reasons
					,				
	-								
	-								
	-				-				

5 Code	CHANGES TO THE MODULE CREDIT RATINGS	F 0	C/E/O	GPA /NGPA	Sem.	Evaluation CA WE		Previous	Reasons
	Module Title	Credits						credit	
ER2034	Principles of RS and GIS	2.0	Е	GPA	3.	30	70	2.5	
ER2054	Introduction to Petroleum Engineering	2.0	Е	GPA	3	30	70	1.5	
CE2813	Soil Mechanics	3.0	E	GPA	5	30	70	2.5	
ER3014	Extraction Metallurgy	3.0	Е	GPA	5	30	70	2	
ER4014	Rock Mechanics	3.0	С	GPA	7	40	60	2.5	
ER4024	Mine Ventilation	3.0	С	GPA	6	30	70	2.5	
ER4131	Mine Waste Management and Rehabilitation	3.0	С	GPA	8	30	70	2.5	
ER4314	GIS and Spatial Statistics	3.0	Е	GPA	8			2.5	
6	OTHER CHANGES				n				
ode	Module Title		nendment	Reasons					
EL1030	Language Skills Enhancement	removed a	ancement l age Skill E ed which is						
ER2054	Introduction to Petroleum Engineering	O to E (Se	em 4 to Se	m 3)					
ER3714	Jewellery Products Development	O to E (Se	O to E (Sem 5)						
ER3704	Digital Image Processing and Photogrammetry	O to E (Se	O to E (Sem 5)						
ER3520	Coastal Hydrodynamics	O to E (Se	O to E (Sem 3 to Sem 5)						
ER4714	Construction Engineering Practice	O to E (Se	O to E (Sem 8 to Sem 5)						
ER3203	Design Project	to 2; Num	Number of credits in Sem. 6 changed from 1 to 2; Number of credits in Sem. 7 changed from 2 to 1						
ER4203	Research Project	to 2; Num	Number of credits in Sem. 7 changed from 1 to 2; Number of credits in Sem. 8 changed from 4 to 3						

EUGS Template last updated on 2020-12 page 9 of 9