

**FACULTY OF ENGINEERING AND SCIENCE, MIRI CAMPUS MALAYSIA**  
**Units offered - Semester 1 & 2, 2018**  
**(Undergraduate Programs and Postgraduate by Coursework Only)**

DEPARTMENT	NO	INDEX	MIRI UNIT	SEM 1 2018	SEM 2 2018	REMARKS
						<b>DR STEPHANIE CHAN YEN SAN</b>
<b>ENGINEERING FIRST YEAR</b>	1	MCEN1000	Engineering Mechanics	√	√	
	2	INDE1000	Engineering Foundations - Principles and Communication	√	√	
	3	MATH1020	Calculus for Engineers	√	√	
	4	MAEN1000	Engineering Materials	√	√	
	5	ELEN1000	Electrical Systems	√	√	
	6	MATH1019	Linear Algebra and Statistics for Engineers	√	√	
	7	INDE1001	Engineering Foundations - Design and Processes	√	√	
	8	COMP1004	Engineering Programming	√	√	
	9	ELEN1001	Introduction to Renewable Energy	√	√	Optional unit
	10	ENGR1000	Engineering Connections	√	√	Optional unit
						<b>ASSOC. PROF. DR HAN BING CHUA</b>
<b>CHEMICAL ENGINEERING</b>	11	CHEN2002	Process Heat Transfer	√		
	12	CHEM1000	Principles and Processes in Chemistry	√	√	
	13	ENGR2000	Fluid Mechanics	√		Common Engineering unit
	14	CHEN3010	Reaction Engineering	√		
	15	CHEN3009	Fluid and Particle Processes	√		
	16	ENEN2000	Engineering Sustainable Development	√		Common Engineering unit
	17	CHEN4000	Chemical Engineering Research Project 1	√	√	
	18	CHEN4001	Process Safety and Risk Management	√		
	19	CHEN4012	Advanced Separation Processes	√		
	20	CHEN3006	Palm Oil and Oleochemical Process	√		Optional unit
	21	WSEN3001	Wastewater Treatment Processes	√		Optional unit
	22	CHEN4017	Bioprocess Engineering	√		Optional unit
	23	CHEN4018	Natural Gas Processing	√		Optional unit
	24	CHEN4004	Computational Fluid Dynamics	√		Optional Unit
	25	CHEN4011	Advanced Modelling and Control		√	Optional Unit
	26	CHEN4010	Advanced Thermodynamics and Reactor Engineering		√	Optional unit
	27	CHEN2001	Chemical Engineering Thermodynamics		√	Shared unit with Petroleum Engineering
	28	CHEM1002	Reactivity and Function in Chemistry	√	√	
	29	CHEN2003	Process Mass Transfer		√	

	30	CHEN2000	Process Principles	√	√	Shared unit with Petroleum Engineering, Environmental Engineering
	31	CHEN2004	Process Simulation		√	Shared unit with Petroleum Engineering
	32	CHEN3000	Process Plant Engineering		√	
	33	CHEN3001	Transport Phenomena		√	
	34	CHEN3003	Process Synthesis and Design	√		
	35	CHEN3005	Process Instrumentation and Control		√	
	36	CHEN4016	Process Economics and Management		√	
	37	CHEN4002	Chemical Engineering Research Project 2	√	√	
	38	CHEN4015	Chemical Engineering Design Project		√	
						<b>ASSOC. PROF. DR MUHAMMAD EKHLASUR RAHMAN</b>
<b>CIVIL AND CONSTRUCTION ENGINEERING</b>	39	STEN2002	Civil Engineering Materials	√		
	40	CVEN2000	Civil Engineering Drawing and Surveying	√		
	41	STEN2005	Structural Analysis of Determinate Structures	√		
	42	ENGR2000	Fluid Mechanics	√		Common Engineering unit
	43	TREN3000	Transportation Engineering	√		For 2015 midyear entry students
	44	STEN3003	Advanced Structural Analysis	√		
	45	GEOT3002	Geotechnical Engineering Analysis	√		
	46	TREN3001	Transportation Engineering & Earthworks	√		
	47	STEN 3004	Structural Actions & Steel Design	√		
	48	CSEN4001	Integrated Design and Construction 1	√		
	49	CSEN4003	Civil Engineering Practices Quality and Legislation	√		
	50	CVEN4000	Water Systems and Structures	√		Optional unit
	51	STEN4001	Prestressed Concrete Design and Construction	√		Optional unit
	52	ENEN4001	Environmental Engineering	√		Optional unit
	53	GEOT4000	Deep Foundations and Piling	√		Optional unit
	54	STEN2006	Structural Analysis of Indeterminate Structures		√	
	55	ENEN2000	Engineering Sustainable Development		√	Common unit
	56	WSEN2000	Water Quality and Resources Engineering		√	
	57	STEN2004	Structural Mechanics		√	
	58	GEOT2000	Principles of Geomechanics		√	
	59	GEOT3003	Geotechnical Engineering for Foundations		√	
	60	CSEN3000	Civil Engineering Project and Cost Management		√	
	61	CVEN3002	Hydraulics and Hydrology		√	
	62	STEN3005	Reinforced Concrete Design		√	
	63	CVEN3000	Pumps and Open Channel Flow		√	For 2015 midyear entry students
	64	CSEN4002	Integrated Design and Construction 2		√	
65	CVEN4003	Civil Engineering Research Project 1	√	√		

	66	CVEN4004	Civil Engineering Research Project 2	√	√	
	67	ENEN4000	Sustainable Development in Civil Engineering		√	
	68	CVEN4001	Environmental Hydraulics and Hydrology		√	Optional unit
	69	GEOT4001	Shallow Foundations and Retaining Walls		√	Optional unit
	70	TREN4001	Pavement Materials and Structural Design		√	Optional unit
	63	TREN3000	Transportation Engineering		√	
	64	WSEN3000	Hydrology and Environmental Engineering		√	
	65	CSEN4002	Integrated Design and Construction 2		√	
	66	CVEN4003	Civil Engineering Research Project 1	√	√	
	67	CVEN4004	Civil Engineering Research Project 2	√	√	
	68	ENEN4000	Sustainable Development in Civil Engineering		√	
	69	CVEN4001	Environmental Hydraulics and Hydrology		√	Optional unit
	70	GEOT4001	Shallow Foundations and Retaining Walls		√	Optional unit
	71	TREN4001	Pavement Materials and Structural Design		√	Optional unit
						<b>DR LENIN GOPAL</b>
<b>ELECTRICAL AND COMPUTER ENGINEERING</b>	72	ELEN2000	Electrical Circuits	√		
	73	COMP1000	Unix and C Programming	√	√	
	74	CMPE2001	Foundations of Digital Design	√		
	75	MATH2007	Mathematics and Probability Theory	√		
	76	ELEN3002	Engineering Electromagnetics and Transmission Lines	√		
	77	MXEN3004	Dynamic Modelling and Control	√		
	78	CMPE3000	Data Communications and Networking	√		
	79	ETEN3003	Power Electronics	√		
	80	ETEN4001	Instrumentation and Control	√		
	81	ELEN4006	Smart Grid and Renewable Energy Systems	√		
	82	ETEN3000	Digital Signal Processing	√		
	83	COMT4003	Mobile Radio Communications	√		
	84	CMPE3006	Advanced Digital Design	√		
	85	CMPE6002	Network Design	√		
	86	CMPE6001	Computer Aided Engineering of Digital Systems	√		
	87	ETEN6000	Control Systems	√		
	88	COMT6004	Wireless Data Networks	√		
89	CMPE1000	Hardware Fundamentals	√			
90	COMP1001	Object Oriented Program Design	√	√		
91	INDE1000	Engineering Foundations - Principles and Communication	√		Shared with Engineering First Year	
92	MATH1015	Linear Algebra 1	√			
93	COMP2006	Operating Systems	√			

94	CMPE2000	Data Communications and Network Management	√		
95	ELEN2002	Transmission and Interface Design	√		
96	ISAD1000	Introduction to Software Engineering	√		
97	CNCO3000	Distributed Networks	√		
98	ETEN6001	Power Electronics	√		
99	ELEN2001	Electromagnetic and Electromechanical Energy Conversion		√	
100	CMPE2003	Microcomputers		√	
101	ETEN2000	Signals and Systems		√	
102	ETEN2001	Electronic Fundamentals		√	
103	ELEN3004	Renewable Energy Principles		√	
104	ENEN2000	Engineering Sustainable Development	√	√	Common Engineering unit
105	BLAW2000	Law for Engineers	√	√	Shared unit with Mechanical Engineering
106	ETEN3002	Electronic Design		√	
107	COMT3000	Communications Engineering		√	
108	EEET4000	Engineering Research Project 1	√	√	
109	EEET4001	Engineering Research Project 2	√	√	
110	MGMT3000	Engineering Management		√	Shared unit with Mechanical Engineering
111	CMPE4003	Concurrent Systems		√	
112	CMPE3001	Embedded Systems Engineering		√	
113	ELEN3001	Power System Analysis		√	
114	ELEN3000	Electrical Machines and Stability		√	
115	CMPE3004	Network Engineering		√	
116	ELEN4001	Electric Power Transmission and Distribution		√	
117	COMP2000	Computer System		√	
118	CMPE3002	Computer Technology Project 1	√	√	
119	CMPE3003	Computer Technology Project 2	√	√	
120	ETEN1000	Electronics		√	
121	COMP1002	Data Structures and Algorithms		√	
122	COMP2003	Object Oriented Software Engineering		√	
123	ISYS1001	Database Systems		√	
124	COMT6000	Digital Communication Engineering		√	
125	CNCO3002	Advanced Computer Communications		√	Optional unit
126	ISYS2012	Information Security		√	Optional unit
127	ISEC3004	Cyber Crime and Security Enhanced Programming		√	Optional unit
128	ISEC3005	Cyber Security- Intrusion Detection System and Incident Handling		√	Optional unit
129	CMPE6004	Concurrent Systems		√	
130	ELEN6010	Electric Power Transmission and Distribution		√	

	131	ELEN6013	Renewable Energy Principles		√	
	132	CNCO6001	Data Network Security		√	
	133	ELEN6009	Power System Analysis		√	
	134	ELEN6011	Engineering Research Design Project 1	√	√	
	135	ELEN6012	Engineering Research Design Project 2	√	√	
						<b>ASSOC. PROF. DR MUHAMMAD EKHLASUR RAHMAN</b>
<b>ENVIRONMENTAL ENGINEERING</b>	136	ENGR2000	Fluid Mechanics	√		
	137	CHEM1000	Principles and Processes in Chemistry	√		
	138	ENST2002	Wildlife Conservation	√		
	139	CHEN2000	Process Principles	√	√	Shared unit with Chemical Engineering
	140	ENEN3004	Introduction to Hydraulics	√		
	141	ENEN3001	Green Engineering Principles and Applications	√		
	142	ENST3000	Environmental Impact Assessment	√		
	143	ENEN3002	Groundwater Contamination	√		
	144	CHEN3009	Fluid and Particle Processes	√		Shared unit with Chemical Engineering
	145	CHEN4001	Process Safety and Risk Management	√		Shared unit with Chemical Engineering
	146	MINE3009	Socio-Environmental Aspects of Mining	√		
	147	CHEN4004	Computational Fluid Dynamics	√		Shared unit with Chemical Engineering
	148	ENEN4006	Environmental Engineering Research Project 1	√	√	
	149	ENEN4007	Environmental Engineering Research Project 2	√	√	
	150	ENEN4004	Geoenvironmental Engineering		√	
	151	ENEN4003	Environmental Principles and Design		√	
	152	CHEN3006	Palm Oil and Oleochemical Process		√	Optional unit, Shared unit with Chemical Engineering
	153	ENEN4002	Environmental Considerations in Construction		√	Optional unit
	154	CVEN4001	Environmental Hydraulics and Hydrology		√	Optional unit
	155	WSEN3001	Wastewater Treatment Processes		√	Optional unit, Shared unit with Chemical Engineering
156	ENST2003	Ecotoxicology		√	Optional unit	
157	ENST1000	Global Environmental Challenges		√		
158	ENEN2001	Solid and Hazardous Waste Management		√		
159	MGMT3000	Engineering Management		√	Shared unit with Mechanical Engineering	
160	GEOT2000	Principles of Geomechanics		√	Shared unit with Civil and Construction Engineering (Previous name: Geotechnical Engineering 1)	
161	ENST3003	Environmental Law and Regulations		√		
162	ENEN3000	Aerial Emissions and Abatement		√		
163	ENEN3005	Water Resources and Public Health		√		
164	ENEN3003	Environmental Engineering Analysis		√		
						<b>ASSOC. PROF. DR SUJAN DEBNATH</b>

<b>MECHANICAL ENGINEERING</b>	165	ENGR2000	Fluid Mechanics	√		
	166	MATH2012	Engineering Mathematics	√		
	167	MCEN2000	Fundamentals of Strength of Materials	√		
	168	MCEN2003	Machine Dynamics	√		
	169	MCEN2005	Engineering Graphics	√		
	170	MCEN3005	Fundamentals of Mechanical Vibration	√		
	171	MCEN3003	Competitive Manufacturing Processes	√		
	172	MCEN3004	Advanced Strength of Materials	√		
	173	MCEN3000	Applied Thermodynamics and Heat Transfer	√		
	174	MCEN4002	Materials Engineering	√		Optional unit
	175	MCEN4004	Heat Transfer	√		Optional unit
	176	MCEN4011	Engineering Design Methodology	√		Optional unit
	177	MCEN4003	Vibration	√		Optional unit
	178	ENEN2000	Engineering Sustainable Development	√	√	Common Engineering unit
	179	MCEN2001	Fundamentals of Thermodynamics		√	
	180	MCEN2004	Manufacturing Processes		√	
	181	MCEN2002	Fundamentals of Mechanical Design		√	
	182	ELEN2004	Electrical Plant		√	
	183	MGMT3000	Engineering Management		√	
	184	MCEN3001	Machine Design		√	
	185	MCEN3002	Applied Fluid Mechanics		√	
	186	MCEN3006	Linear Systems and Control		√	
	187	MCEN4005	Mechanical Engineering Research Project 1	√	√	
	188	MCEN4006	Mechanical Engineering Research Project 2	√	√	
189	BLAW2000	Law for Engineers		√	Shared unit with Electrical and Computer Engineering	
190	MCEN4010	Professional Engineering Practice		√		
191	MCEN4001	Industrial Fluid Mechanics		√	Optional unit	
192	MCEN4008	Finite Element Analysis		√	Optional unit	
193	MCEN4000	Design for Manufacturing		√	Capstone unit	
194	MCEN4009	Engineering Noise Control		√	Optional unit	
<b>DR HISHAM KHALED BEN MAHMUD</b>						
<b>PETROLEUM ENGINEERING</b>	195	CHEM1000	Principles and Processes in Chemistry		√	Shared unit with Chemical Engineering
	196	ENGR2000	Fluid Mechanics	√		Common Engineering unit
	197	ENEN2000	Engineering Sustainable Development	√		Common Engineering unit
	198	GEOL1005	Fundamentals of Geology 1	√		Shared unit with Applied Geology
	199	PEEN3001	Reservoir Engineering Fundamentals	√		
	200	PEEN3004	Hydrocarbon Phase Behaviour	√		

201	MCEN2000	Fundamentals of Strength of Materials	√		
202	PEEN3005	Petroleum Geology and Geophysics	√		
203	PEEN4001	Petroleum Economics Risk and Project Management	√		
204	PEEN4004	Numerical Reservoir Simulation	√		
205	PEEN4003	Advanced Drilling Engineering	√		
206	CHEN2001	Chemical Engineering Thermodynamics		√	Shared unit with Chemical Engineering
207	CHEN2000	Process Principles	√	√	Shared unit with Chemical Engineering
208	PEEN2000	Petrophysics and Reservoir Properties Laboratory		√	
209	CHEN2004	Process Simulation		√	Shared unit with Chemical Engineering
210	PEEN3000	Formation Evaluation	√		Shared unit with Applied Geology
211	PEEN3008	Reservoir Engineering Practices		√	
212	PEEN3002	Petroleum Production Technology		√	
213	PEEN3006	Drilling Engineering and Fluids Laboratory		√	
214	PEEN4010	Petroleum Engineering Research Project 1	√	√	
215	PEEN4000	Crude Oil Processing		√	
216	PEEN4011	Petroleum Field Development Planning		√	
217	PEEN4002	Petroleum Engineering Research Project 2	√	√	
218	PEEN4006	Petroleum Geomechanics		√	
219	PEEN1000	Introduction to Petroleum Engineering	√	√	
220	GEOP6008	Applied Geology and Geophysics	√		
221	PEEN6002	Phase Behaviour and Flow Assurance	√		
222	PEEN6003	Formation Evaluation	√		
223	PEEN6004	Fundamentals of Reservoir Engineering	√		
224	PEEN6005	Drilling Engineering Fundamentals		√	
225	PEEN6006	Production Technology		√	
226	PEEN6012	Advanced Reservoir Engineering		√	
227	PEEN6013	Well Stimulation Remedial and Intervention Operations		√	
228	ECON6007	Hydrocarbon Economics and Project Management	√		
229	PEEN6014	Advanced Numerical Reservoir Simulation	√		
230	PEEN6007	Field Development Planning	√		
	PEEN6008	Advanced Drilling Practices	√		
					<b>ASSOC. PROF. DR WILLIAM SAMUEL DOWNEY</b>
<b>APPLIED GEOLOGY</b>	231	GEOL1005	Fundamentals of Geology 1	√	Also includes Petroleum Engineering students
	232	GEOL1002	Geoscience Communication	√	
	233	PHYS1006	Foundations of Physics	√	
	234	MATH1013	Introductory Mathematics	√	
	235	GEOL2008	Field Geology Techniques	√	



236	GEOL2003	Mineralogy and Geochemistry	√		
237	GEOL2004	Sedimentology and Stratigraphy	√		
238	GEOL2007	Structural Geology	√		
239	GEOL3000	Basin Analysis and Petroleum Systems	√		
240	ENEN2000	Engineering Sustainable Development	√	√	Shared unit with other Engineering programs
241	PEEN1000	Introduction to Petroleum Engineering	√	√	Shared unit with Petroleum Engineering
242	GEOL3009	Field Mapping and Stratigraphy of Sedimentary Systems	√		
243	PEEN3001	Reservoir Engineering Fundamentals	√		Shared unit with Petroleum Engineering
244	ERTH4002	Geoscience Professional Practice	√		
245	GEOP3007	Petroleum Geophysics	√	√	
246	ERTH4001	Geoscience Honours Dissertation ( <i>Full Year - Honours</i> )	√	√	
247	ERTH4003	Geoscience Honours Dissertation Preparation ( <i>Full Year - Honours</i> )		√	
248	GEOL1003	Evolving Earth Systems and Palaeontology		√	
249	GEOL1004	Geoscience Environment and Society		√	
250	CHEM1003	Introduction to Chemistry		√	
251	GEOL1006	Fundamentals of Geology 2		√	
252	GEOL2005	Igneous Petrology		√	
253	GEOL2006	Metamorphic Petrology		√	
254	GEOP2004	Geophysics for Mineral Exploration		√	
255	GEOL2009	Geological Field Mapping		√	
256	GEOL3001	Tectonics and the Dynamic Earth		√	
257	GEOL3008	Environmental Geoscience		√	
258	PEEN3000	Formation Evaluation		√	Shared unit with Petroleum Engineering
259	GEOL3006	Petroleum Geology Project		√	