



POLITEKNIK BRUNEI
PROGRAMME GUIDE

SCHOOL OF SCIENCE & ENGINEERING

Programmes offered by this school are *Diploma Level 5*
(same level as HND) in:

- ❖ Architecture
- ❖ Civil Engineering
- ❖ Electrical and Electronics Engineering
- ❖ Interior Design
- ❖ Mechanical Engineering
- ❖ Petroleum Engineering
- ❖ Science Technology (Chemical Laboratory Technology)
- ❖ Telecommunications and Systems Engineering



ARCHITECTURE

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	63
TOTAL	97

These are the modules that are considered fundamental modules for Architecture programme and therefore students are required to PASS them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	AR1201	Introduction to Architecture	3
2	AR2201	CAD - Computer Aided Design & Presentation I	3
	AR2202	History and Theory Architecture	3
	AR2203	Material and Architectural Technology I	3
	AR2204	Architectural Design Studio I (Project: Residential)	4
	AR2205	Architectural Practice I	3
3	AR3201	3D CAD	3
	AR3202	Architectural Design Studio II (Project: Commercial)	4
	AR3203	History and MIB of Architecture	3
	AR3204	Material and Architectural Technology II	3
	AR3205	Environmental Science I	2
4	AR4201	Architectural Design studio III (project: High rise building)	4
	AR4202	Sustainable Design in Architecture and Landscape I	3
	AR4203	Collaborative and Integrative Design	4
	AR4204	Advance CAD Presentation	3
	AR4205	Architectural Practice II	3
6	AR5201	Material & Architectural Technology III	3
	AR5203	BIM - Building Information Modelling	3
	AR5204	Sustainable Design in Architecture and Landscape II	3
	AR3205	Environmental Science II	3

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	GS 1101	Pengajian Melayu Islam Beraja	Core	2
		GS 1102	Pendidikan Islam	Core	2
		GS 1124	Mathematics for Design & Architecture	Core	3
		BE 1101	Entrepreneurship	Core	3
		HS 1101	Health, Safety, Security and Environment	Core	3
		AR 1201	Introduction to Architecture	Essential	3
		Total Credit Value			
	Semester 2	GS1113	Communication Skills	Core	3
		AR2201	CAD - Computer Aided Design & Presentation I	Essential	3
		AR2202	History and Theory Architecture	Essential	3
		AR2203	Material and Architectural Technology I	Essential	3
		AR2204	Architectural Design Studio I (Project: Residential)	Essential	4
		AR2205	Architectural Practice I	Essential	3
	Total Credit Value				19
Year 2	Semester 3	AR3201	3D CAD	Essential	3
		AR3202	Architectural Design Studio II (Project: Commercial)	Essential	4
		AR3203	History and MIB of Architecture	Essential	3
		AR3204	Material and Architectural Technology II	Essential	3
		AR3205	Environmental Science I	Essential	2
	Total Credit Value				15
	Semester 4	AR4201	Architectural Design studio III (project: High rise building)	Essential	4
		AR4202	Sustainable Design in Architecture and Landscape I	Essential	3
		AR4203	Collaborative and Integrative Design	Essential	4
		AR4204	Advance CAD Presentation	Essential	3
AR4205		Architectural Practice II	Essential	3	
Total Credit Value				17	
Year 3	Semester 5	IN4101	Internship	Core	8
		Total Credit Value			
	Semester 6	AR6201	Material & Architectural Technology III	Essential	3
		AR6202	Architectural Design Studio IV (FYP)	Core	8
		AR6203	BIM - Building Information Modelling	Essential	3
		AR6204	Sustainable Design in Architecture and Landscape II	Essential	3
		AR6205	Environmental Science II	Essential	3
Total Credit Value				20	
Throughout 3 Years Programme					
	EM1188	Enrichment	Core	2	
Total Credit Value for the Whole Programme				97	

INTERIOR DESIGN

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	56
TOTAL	90

These are the modules that are considered fundamental modules for Architecture programme and therefore students are required to PASS them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	ID1201	Introduction to Interior Design	3
2	ID2201	Advance Working Drawing	3
	ID2202	CAD 1: AutoCAD for Interior Design	2
	ID2203	Form and Space 2: Conceptual Studies	2
	ID2204	Design Studio 2: Residential	3
	ID2205	Visual Communication Studies	2
3	ID3201	Form and Space 3: MIB & Islamic Architecture	2
	ID3202	Environmental Psychology	2
	ID3203	CAD 2: Sketchup and Revit	3
	ID3204	Historical and Contextual Studies 1	2
	ID3205	Building Design Technology 1	2
	ID3206	Design Studio 3: Commercial	3
4	ID4201	Form and Space 4: Human Factor and Furniture design	3
	ID4202	Collaborative and Integrative Design	4
	ID4203	Sustainable Design	2
	ID4204	Historical and Contextual Studies 2	2
	ID4205	CAD 3: 3Ds Max and Lumion	3
	ID4206	Design Studio 4: Institutions	3
6	ID5201	CAD 4: BIM Building Information Modeling	3
	ID5202	Specification	2
	ID5203	Building Design Technology 2	3
	ID5204	Professional Practice and Design Project Management	2

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	HS 1101	Health, Safety, Security & Environment	Core	3
		GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		GS1124	Mathematics for Interior Design	Core	3
		BE1101	Entrepreneurship	Core	3
		ID1201	Introduction to Interior Design	Essential	3
		Total Credit Value			
	Semester 2	GS1113	Communication Skills	Core	3
		ID2201	Advance Working Drawing	Essential	3
		ID2202	CAD 1: AutoCAD for Interior Design	Essential	2
		ID2203	Form and Space 2: Conceptual Studies	Essential	2
		ID2204	Design Studio 2: Residential	Essential	3
		ID2205	Visual Communication Studies	Essential	2
		Total Credit Value			
Year 2	Semester 3	ID3201	Form and Space 3: MIB & Islamic Architecture	Essential	2
		ID3202	Environmental Psychology	Essential	2
		ID3203	CAD 2: Sketchup and Revit	Essential	3
		ID3204	Historical and Contextual Studies 1	Essential	2
		ID3205	Building Design Technology 1	Essential	2
		ID3206	Design Studio 3: Commercial	Essential	3
		Total Credit Value			
	Semester 4	ID4201	Form and Space 4: Human Factor and Furniture design	Essential	3
		ID4202	Collaborative and Integrative Design	Essential	4
		ID4203	Sustainable Design	Essential	2
		ID4204	Historical and Contextual Studies 2	Essential	2
		ID4205	CAD 3: 3Ds Max and Lumion	Essential	3
		ID4206	Design Studio 4: Institutions	Essential	3
		Total Credit Value			
Year 3	Semester 5	IN4104	Internship	Core	8
		Total Credit Value			
	Semester 6	ID6201	CAD 4: BIM Building Information Modeling	Essential	3
		ID6202	Specification	Essential	2
		ID6203	Building Design Technology 2	Essential	3
		ID6204	Professional Practice and Design Project Management	Essential	2
		ID6205	Interior Design Final Year Project	Essential	8
	Total Credit Value				18
Throughout 3 Years Programme					
	EM1188	Enrichment	Core	2	
Total Credit Value for the Whole Programme				90	

CIVIL ENGINEERING

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	29
Essential Modules	61
TOTAL	90

These are the modules that are considered fundamental modules for Civil Engineering programme and therefore students are required to pass them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	CE1202	Introduction to Civil Engineering	3
2	CE2202	Engineering Drawings 1(Technical Drawing)	3
	CE2203	Surveying 1	3
	CE2204	Construction Technology	2
	CE2205	Mechanics of Solids	3
3	CE3201	Construction Materials	3
	CE3202	Engineering Drawing 2 (AutoCAD)	3
	CE3203	Surveying 2	3
	CE3204	Hydraulics	3
	CE3206	Quantities, Estimation & Valuation	3
4	CE4201	Structures 1	3
	CE4202	Water Supply, Sewerage & Waste Management	3
	CE4203	Traffic & Highway Engineering	3
	CE4204	Construction Management	3
	CE4205	Soil Mechanics	3
5	SE5201	Final Year Project	8
	CE5201	Structures 2	3
	CE5202	Hydrology & Drainage	3
	CE5203	Foundation & Pavement	3

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	HS1101	Health, Safety, Security and Environment	Core	3
		CE1202	Introduction to Civil Engineering	Essential	3
		GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		GS1126	Engineering Mathematics 1	Core	3
		BE1101	Entrepreneurship	Core	3
	Total Credit Value				16
	Semester 2	CE2128	Engineering Mathematics 2	Core	3
		CE2202	Engineering Drawings 1(Technical Drawing)	Essential	3
		CE2203	Surveying 1	Essential	3
		CE2204	Construction Technology	Essential	2
		CE2205	Mechanics of Solids	Essential	3
		GS1113	Communication Skills	Core	3
	Total Credit Value				17
Year 2	Semester 3	CE3201	Construction Materials	Essential	3
		CE3202	Engineering Drawing 2 (AutoCAD)	Essential	3
		CE3203	Surveying 2	Essential	3
		CE3204	Hydraulics	Essential	3
		CE3206	Quantities, Estimation & Valuation	Essential	3
	Total Credit Value				15
	Semester 4	CE4201	Structures 1	Essential	3
		CE4202	Water Supply, Sewerage & Waste Management	Essential	3
		CE4203	Traffic & Highway Engineering	Essential	3
		CE4204	Construction Management	Essential	3
CE4205		Soil Mechanics	Essential	3	
Total Credit Value				15	
Year 3	Semester 5	SE5201	Final Year Project	Core	8
		CE5201	Structures 2	Essential	3
		CE5202	Hydrology & Drainage	Essential	3
		CE5203	Foundation & Pavement	Essential	3
	Total Credit Value				17
	Semester 6	IN4101	Internship	Core	8
Total Credit Value				8	
Throughout 3 Years Programme					
	EM1188	Enrichment	Core	2	
Total Credit Value for the Whole Programme				90	

ELECTRICAL & ELECTRONICS ENGINEERING

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	32
Essential Modules	32
Specialisation Modules	26
TOTAL	90

These are the modules that are considered fundamental modules Electrical & Electronic Engineering programme and therefore students are required to PASS them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	EE1202	Introduction to Electrical and Electronics Engineering	3
2	EE2202	Electrical and Electronics Principle 1	3
	EE2203	Transducer and Instrument	3
	EE2204	Workshop Skills	3
3	EE3202	Electrical and Electronics Principle 2	3
	EE3204	Computer Programming	3
	EE3205	Digital Electronics	3
4	EE4201	Microprocessor and Microcontroller Application	3

Session	Module Code	Module Title	Module Type	Credit Value		
Year 1	Semester 1	HS1101	Health, Safety, Security & Environment	Core	3	
		EE1202	Introduction to Electrical and Electronics Engineering	Essential	3	
		GS1101	Pengajian Melayu Islam Beraja	Core	2	
		GS1102	Pendidikan Islam	Core	2	
		GS1126	Mathematics For Engineering	Core	3	
		BE1101	Entrepreneurship	Core	3	
	Total Credit Value				16	
	Semester 2	EE2126	Engineering Mathematics 2	Core	3	
		EE2202	Electrical and Electronics Principle 1	Essential	3	
		EE2203	Transducer and Instrument	Essential	3	
		EE2204	Workshop Skills	Essential	3	
		GS2113	Communication Skills	Core	3	
	Total Credit Value				15	
	Year 2	Semester 3	EE3133	Engineering Mathematics 3	Core	3
			EE3202	Electrical and Electronics Principle 2	Essential	3
EE3303			Electrical Power Engineering	Specialisation	4	
EE3204			Computer Programming	Essential	3	
EE3205			Digital Electronics	Essential	3	
Total Credit Value				16		
Semester 4		EE4201	Microprocessor and Microcontroller Application	Essential	3	
		EE4302	Programmable Logic Controllers	Specialisation	3	
		EE4303	Electrical Machines	Specialisation	3	
		EE4304	Control Systems 1	Specialisation	3	
Total Credit Value				12		
Year 3	Semester 5	IN4101	Internship	Core	8	
		Total Credit Value				8
	Semester 6	EE5301	Industrial Applications	Specialisation	3	
		EE5302	Power Electronic Drives	Specialisation	3	
		EE5303	Power Systems	Specialisation	4	
		EE5304	Control System 2	Specialisation	3	
	FY5205	Final Year Project* (FYP)	Core	8		
Total Credit Value				21		
Throughout 3 Years Programme						
	EM1188	Enrichment	Core	2		
Total Credit Value for the Whole Programme				90		

MECHANICAL ENGINEERING

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	37
Essential Modules	47
Specialisation / Option Modules	6
TOTAL	90

These are the modules that are considered fundamental modules for Mechanical Engineering programme and therefore students are required to pass them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	ME1201	Introduction to Mechanical Engineering	3
2	ME2202	Engineering Drawings 1(Technical Drawing)	3
	ME2203	Engineering Mechanics 1	4
	ME2204	Elements of Engineering Plants	4
	ME2205	Manufacturing Processes 1	2
3	ME3201	Properties of Engineering Materials	3
	ME3202	Engineering Drawing 2 (AutoCAD)	3
	ME3203	Engineering Mechanics 2	4
	ME3204	Manufacturing Processes 2	3
4	ME3205	Electrotechnology	3
	ME4201	Engineering Thermodynamics 1	3
	ME4202	Mechanical Engineering Design	3
	ME4203	Fluid Mechanics	3
	ME4204	Manufacturing Engineering	3

These option modules are available for Mechanical Engineering programme. Students can choose ONE (1) specialisation area from the following options: (i) Design or (ii) Maintenance and to take two modules under the chosen specialisation area in semester 5.

SPECIALISATION AREA	MODULE CODE	SPECIALISATION MODULES	CREDIT VALUE
Design	ME5402	Mechanical Engineering Design 2	3
	ME5403	Computer Aided Drafting & Design	3
Maintenance	ME5404	Maintenance Engineering	3
	ME5405	Air Conditioning Plant	3

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	HS1101	Health, Safety, Security & Environment	Core	3
		ME1201	Introduction to Mechanical Engineering	Essential	3
		GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		GS1126	Engineering Mathematics 1	Core	3
		BE1101	Entrepreneurship	Core	3
	Total Credit Value				16
	Semester 2	ME2328	Engineering Mathematics 2	Core	3
		ME2202	Engineering Drawings 1 (Technical Drawing)	Essential	3
		ME2203	Engineering Mechanics 1	Essential	4
		ME2204	Elements of Engineering Plants	Essential	4
		ME2205	Manufacturing Processes 1	Essential	2
		GS1113	Communication Skills	Core	3
Total Credit Value				18	
Year 2	Semester 3	ME3201	Properties of Engineering Materials	Essential	3
		ME3202	Engineering Drawing 2 (AutoCAD)	Essential	3
		ME3203	Engineering Mechanics 2	Essential	4
		ME3204	Manufacturing Processes 2	Essential	3
		ME3205	Electrotechnology	Essential	3
	Total Credit Value				16
	Semester 4	ME4201	Engineering Thermodynamics 1	Essential	3
		ME4202	Mechanical Engineering Design	Essential	3
		ME4203	Fluid Mechanics	Essential	3
		ME4204	Manufacturing Engineering	Essential	3
		Final Year Project*	Core	-	
Total Credit Value				12	
Year 3	Semester 5	ME5301	Engineering Thermodynamics 2	Essential	3
		ME5402	Specialisation Option	Specialisation	3
		ME5403	Specialisation Option	Specialisation	3
		SE5101	Final Year Project*	Core	8
	Total Credit Value				17
	Semester 6	IN4101	Internship	Core	8
		Total Credit Value			
Throughout 3 Years Programme					
	EM1188	Enrichment	Core	2	
Total Credit Value for the Whole Programme				90	

*Final Year Project (FYP) activities and assessments commences in Semester 4 and continues in Semester 5 where the final grade will be awarded.

PETROLEUM ENGINEERING

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	37
Essential Modules	22
Specialisation Modules	33
TOTAL	92

These are the modules that are considered fundamental modules for Petroleum Engineering programme and therefore students are required to pass them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	ESSENTIAL MODULES	CREDIT VALUE
1	Introduction to Petroleum Industry	3
2	Engineering Chemistry	3
	Engineering Physics	3
	Oil and Gas Exploration and Production	2
	Physical Geology	2
3	HSSE in Oil and Gas Industry	3
	Engineering Material	2
	Engineering Mechanics	2
	Engineering Drawings	3

These Specialisation modules are available for Petroleum Engineering programme. Students will learn these modules during semester 3 onwards.

SEMESTER	SPECIALISATION MODULES	CREDIT VALUE
3	Petroleum Geology	3
4	Petrophysics and Well Logging	4
	Reservoir Engineering	4
	Petroleum Production Engineering	4
	Petroleum Engineering Design Project	2
5	Well Drilling Operations	6
	Well Completion and Intervention	6
	Drilling and Well Technology	2
	Drilling and Well Design Project	2

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	HS1101	Health, Safety, Security & Environment	Core	3
		GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		GS1126	Engineering Mathematics 1	Core	3
		BE1101	Entrepreneurship	Core	3
		PE1201	Introduction to Petroleum Industry	Essential	3
	Total Credit Value				16
	Semester 2	PE2131	Engineering Mathematics 2	Core	3
		PE2204	Engineering Chemistry	Essential	3
		PE2203	Engineering Physics	Essential	2
		PE2201	Oil and Gas Exploration and Production	Essential	2
		PE2202	Physical Geology	Essential	2
		GS1113	Communication Skills for Engineering	Core	3
	Total Credit Value				16
Year 2	Semester 3	PE3301	Petroleum Geology	Specialisation	3
		PE3201	HSSE in Oil and Gas Industry	Essential	3
		PE3204	Engineering Material	Essential	2
		PE3203	Engineering Mechanics	Essential	2
		PE3202	Engineering Drawings	Essential	3
	Total Credit Value				13
	Semester 4	PE4301	Petrophysics and Well Logging	Specialisation	4
		PE4302	Reservoir Engineering	Specialisation	4
		PE4303	Petroleum Production Engineering	Specialisation	4
		PE4304	Petroleum Engineering Design Project	Specialisation	2
Total Credit Value				14	
Year 3	Semester 5	PE5301	Well Drilling Operations	Specialisation	6
		PE5302	Well Completion and Intervention	Specialisation	6
		PE5303	Drilling and Well Technology	Specialisation	2
		PE5304	Drilling and Well Design Project	Specialisation	2
	Total Credit Value				16
	Semester 6	SE5101	Final Year Project	Core	8
		IN4101	Internship	Core	8
		Total Credit Value			
Throughout 3 Years Programme					
	EM1188	Enrichment	Core	2	
Total Credit Value for the Whole Programme				95	

In Year 3, there are 2 Options:

Option 1: Students are to continue Semester 5 modules and having internship & FYP in their last semester.

Option 2: Students go for internship & FYP and only continue Semester 5 modules in their last semester

SCIENCE TECHNOLOGY (CHEMICAL LABORATORY TECHNOLOGY)

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	26
Essential Modules	46
Specialisation Modules	18
TOTAL	90

These are the modules that are considered fundamental modules for Science Technology (Chemical Laboratory Technology) programme and therefore students are required to PASS them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	CL1201	General Chemistry I	3
2	CL2201	General Chemistry II	3
	CL2203	Analytical Instrumentation I	3
	CL2204	Inorganic Chemistry	3
	CL2207	Biochemistry	3
	CL2208	General Biology	3
3	CL3202	Laboratory Techniques	3
	CL3203	Analytical Instrumentation II	3
	CL3205	Organic Chemistry	3
	CL3206	Physical Chemistry	3
	CL3209	Microbiology I	3
4	CL4209	Microbiology II	3
5	CL5307	Quality Control and Assurance	2
	SE5201	Final Year Project	8

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	HS1101	Health, Safety, Security & Environment	Core	3
		GS1126	Mathematics fo Science	Core	3
		BE1101	Entrepreneurship	Core	3
		GS1102	Pendidikan Islam	Core	2
		GS1101	Pengajian Melayu Islam Beraja	Core	2
		CL1201	General Chemistry I	Essential	3
	Total Credit Value				16
	Semester 2	GS2113	Communication Skill	Core	3
		CL2201	General Chemistry II	Essential	3
		CL2203	Analytical Instrumentation I	Essential	3
		CL2204	Inorganic Chemistry	Essential	3
		CL2207	Biochemistry	Essential	3
		CL2208	General Biology	Essential	3
	Total Credit Value				18
Year 2	Semester 3	CL3202	Laboratory Techniques	Essential	3
		CL3203	Analytical Instrumentation II	Essential	3
		CL3205	Organic Chemistry	Essential	3
		CL3206	Physical Chemistry	Essential	3
		CL3209	Microbiology I	Essential	3
	Total Credit Value				15
	Semester 4	CL4209	Microbiology II	Essential	3
		CL4301	Food Chemistry	Specialisation	3
		CL4302	Environmental Chemical Analysis	Specialisation	3
		CL4303	Green Chemistry	Specialisation	3
CL4304		Material Science	Specialisation	3	
Total Credit Value				15	
Year 3	Semester 5	SE5201	Final Year Project*	Essential	8
		CL5305	Industrial Chemicals	Specialisation	3
		CL5306	Medicinal Chemistry	Specialisation	3
		CL5307	Quality Control and Assurance	Specialisation	2
	Total Credit Value				16
	Semester 6	IN4101	Internship	Core	8
Total Credit Value				8	
Throughout 3 Year Programme					
	EM1188	Enrichment**	Core	2	
Total Credit Value for the Whole Programme				90	

*Final Year Project (FYP) activities and assessments commences in Semester 4 and continues in Semester 5 where the final grade will be awarded.

TELECOMMUNICATIONS & SYSTEMS ENGINEERING

These are the modules that are considered fundamental modules for Telecommunications & Systems Engineering programme and therefore students are required to PASS them. These modules are distributed throughout the duration of the programme as shown below.

SEMESTER	MODULE CODE	ESSENTIAL MODULES	CREDIT VALUE
1	CS1201	Introduction to Communications and Systems Engineering	3
2	CS2202	Electrical and Electronic Principles 1	3
	CS2203	Workshop Skills	3
3	CS3202	Digital Electronics (Telecomm)	3
	CS3204	Electrical and Electronic Principles 2 (Telecomm)	3
	CS3205	Computer Programming	3

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	21
Essential Modules	
Specialisation Modules	
TOTAL	90

Session	Module Code	Module Title	Module Type	Credit Value		
Year 1	Semester 1	HS1101	Health, Safety , Security and Environment	Core	3	
		GS1126	Mathematics Engineering 1	Core	3	
		BE1101	Entrepreneurship	Core	3	
		GS1101	Pengajian Melayu Islam Beraja	Core	2	
		GS1102	Pendidikan Islam	Core	2	
		TS1201	Introduction to Communications and Systems Engineering	Essential	3	
	Total Credit Value				16	
	Semester 2	TS2101	Mathematics Engineering 2	Core	3	
		GS2113	Communication Skills for Engineering	Core	3	
		TS2202	Electrical and Electronic Principles 1 (Telecomm)	Essential	3	
		TS2203	Workshop Skills	Essential	3	
		TS2304	Communication Systems	Specialisation	4	
	Total Credit Value				16	
	Year 2	Semester 3	TS3101	Mathematics Engineering 3	Core	3
			TS3202	Digital Electronics (Telecomm)	Essential	3
			TS3303	Communication Electronics	Specialisation	3
TS3204			Electrical and Electronic Principles 2 (Telecomm)	Essential	3	
TS3205			Computer Programming	Essential	3	
Total Credit Value				15		
Semester 4		TS4301	Computer Networks	Specialisation	3	
		TS4302	Microwave Systems	Specialisation	3	
		TS4303	Data Communications	Specialisation	3	
		TS4304	Network Application Programming	Specialisation	3	
	TS4305	Fibre Optics Communication	Specialisation	4		
Total Credit Value				16		
Year 3	Semester 5	TS5201	Access Network			
		TS5202	Telephony and Vas			
	Semester 6**	TS5303	Information Technology			
			Final Year Project			
Throughout 3 Years Programme						
	EM1188	Enrichment*	Core	2		
Total Credit Value for the Whole Programme						

*Not yet confirmed. Subject to change

**Semester 5 & 6 – Apprenticeship at TELKOM BRUNEI