



POLITEKNIK BRUNEI
PROGRAMME GUIDE

SCHOOL OF INFORMATION & COMMUNICATION TECHNOLOGY

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

- ❖ Digital Media
- ❖ IT Network and Security
- ❖ Information Systems
- ❖ Library Informatics & Computing
- ❖ Web Development



DIGITAL MEDIA

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	24
Specialization Modules	32
TOTAL	90

These are the modules that are considered fundamental modules for Digital Media 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	IS1201	Computer Systems Architecture	3
	IS1202	Information Systems Essentials	3
2	DM2201	Multimedia and Creative Technology	3
	NS2201	Network Fundamentals	3
	WD2201	Basic Web Programming	3
	LC2201	Introduction to Informatics	3
3	WD3203	Web Design	4
5	IS5211	Project Management	2

These specialisation modules are available for Digital Media programme. These modules will allow students to pursue in greater depth their chosen discipline. Students taking this programme are expected to undertake ALL of the specialisation modules in Semester 3 and Semester 4 as specified below.

SEMESTER	MODULE CODE	SPECIALISATION MODULES	CREDIT VALUE
3	DM3302	Pre-visualization	4
	DM3303	Digital Design and Media Studies	4
	DM3304	Digital Photography	4
	DM3305	Conventions of Animation	4
4	DM3306	3D Animation I	4
	DM4307	3D Animation II	4
	DM4308	Interactive Multimedia	4
	DM4309	Video Production	4
	DM4310	Portfolio and Showreel	4

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	GS1122	Mathematics for Computing	Core	3
		GS1112	Communication Skills for Computing	Core	3
		HS1101	Health, Safety, Security and Environment	Core	3
		IS1201	Computer Systems Architecture	Core	3
		IS1202	Information Systems Essentials	Essential	3
	Total Credit Value				15
	Semester 2	GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		BE1101	Entrepreneurship	Core	3
		DM2201	Multimedia and Creative Technology	Essential	3
		NS2201	Network Fundamentals	Essential	3
		WD2201	Basic Web Programming	Essential	3
		LC2201	Introduction to Informatics	Essential	3
	Total Credit Value				19
Year 2	Semester 3	WD3203	Web Design	Essential	4
		DM3302	Pre-visualization	Specialised	2
		DM3303	Digital Design and Media Studies	Specialised	4
		DM3304	Digital Photography	Specialised	3
		DM3305	Conventions of Animation	Specialised	3
		DM3306	3D Animation I	Specialised	4
	Total Credit Value				20
	Semester 4	DM4307	3D Animation II	Specialised	4
		DM4308	Interactive Multimedia	Specialised	4
		DM4309	Video Production	Specialised	4
DM4310		Portfolio and Showreel	Specialised	4	
Total Credit Value				16	
Year 3	Semester 5	IS5211	Project Management	Essential	2
		IT5101	Final Year Project	Core	8
	Total Credit Value				10
	Semester 6	IN4101	Internship	Core	8
		EM1188	Enrichment*	Core	2
Total Credit Value				10	
Total Credit Value for the Whole Programme				90	

*Enrichment module commences throughout three (3) years Diploma programme

IT NETWORK & SECURITY

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	32
Specialization Modules	24
TOTAL	90

These are the modules that are considered fundamental modules for IT Network & Security 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	IS1201	Computer Systems Architecture	3
	IS1202	Information Systems Essentials	3
2	DM2201	Multimedia and Creative Technology	3
	NS2201	Network Fundamentals	3
	WD2201	Basic Web Programming	3
	LC2201	Introduction to Informatics	3
3	IS3203	Systems Analysis and Design	4
	NS3202	Cyber Security	4
	IS3204	Programming Application	4
5	IS5211	Project Management	2

These specialization modules are available for IT Network and Security programme. These modules will allow students to pursue in greater depth their chosen discipline. Students taking this programme are expected to undertake ALL the specialisation modules in Semester 3 and Semester 4 as specified below.

SEMESTER	MODULE CODE	SPECIALISATION MODULES	CREDIT VALUE
3	NS3303	Internetworking	4
	NS3304	Computer Network & Data Communication	4
4	NS4305	Mobile and Wireless Computing	4
	NS4306	Network Programming	4
	NS4307	Cloud Computing	4
	NS4308	Network Administration & Management	4

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	GS1122	Mathematics for Computing	Core	3
		GS1112	Communication Skills for Computing	Core	3
		HS1101	Health, Safety, Security and Environment	Core	3
		IS1201	Computer Systems Architecture	Essential	3
		IS1202	Information Systems Essentials	Essential	3
	Total Credit Value				15
	Semester 2	GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		BE1101	Entrepreneurship	Core	3
		DM2201	Multimedia and Creative Technology	Essential	3
		NS2201	Network Fundamentals	Essential	3
		WD2201	Basic Web Programming	Essential	3
		LC2201	Introduction to Informatics	Essential	3
	Total Credit Value				19
Year 2	Semester 3	IS3203	Systems Analysis and Design	Essential	4
		NS3202	Cyber Security	Essential	4
		IS3204	Programming Application	Essential	4
		NS3303	Internetworking	Specialised	4
		NS3304	Computer Network & Data Communication	Specialised	4
	Total Credit Value				20
	Semester 4	NS4305	Mobile and Wireless Computing	Specialised	4
		NS4306	Network Programming	Specialised	4
		NS4307	Cloud Computing	Specialised	4
		NS4308	Network Administration & Management	Specialised	4
Total Credit Value				16	
Year 3	Semester 5	IS5211	Project Management	Essential	2
		IT5101	Final Year Project	Core	8
		Total Credit Value			
	Semester 6	IN4101	Internship	Core	8
		EM1188	Enrichment*	Core	2
Total Credit Value				10	
Total Credit Value for the Whole Programme				90	

*Enrichment module commences throughout three (3) years Diploma programme.

INFORMATION SYSTEMS

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	36
Specialization Modules	20
TOTAL	90

These are the modules that are considered fundamental modules for Information Systems 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	IS1201	Computer Systems Architecture	3
	IS1202	Information Systems Essentials	3
2	DM2201	Multimedia and Creative Technology	3
	NS2201	Network Fundamentals	3
	WD2201	Basic Web Programming	3
	LC2201	Introduction to Informatics	3
3	IS3203	Systems Analysis and Design	4
	IS3204	Programming Application	4
4	IS4209	Database Design and Implementation	4
5	IS5211	Project Management	2

These specialization modules are available for Information Systems programme. These modules will allow students to pursue in greater depth their chosen discipline. Students taking this programme are expected to undertake ALL the specialisation modules in Semester 3 and Semester 4 as specified below.

SEMESTER	MODULE CODE	SPECIALISATION MODULES	CREDIT VALUE
3	IS3305	Emerging Technologies	4
	IS3306	Information Systems Management	4
4	IS4307	Systems Design and Development	4
	IS4308	Advanced Programming	4
	IS4310	Mobile Application and Development	4

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	GS1122	Mathematics for Computing	Core	3
		GS1112	Communication Skills for Computing	Core	3
		HS1101	Health, Safety, Security and Environment	Core	3
		IS1201	Computer Systems Architecture	Essential	3
		IS1202	Information Systems Essentials	Essential	3
	Total Credit Value				15
	Semester 2	GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		BE1101	Entrepreneurship	Core	3
		DM2201	Multimedia and Creative Technology	Essential	3
		NS2201	Network Fundamentals	Essential	3
		WD2201	Basic Web Programming	Essential	3
		LC2201	Introduction to Informatics	Essential	3
	Total Credit Value				19
Year 2	Semester 3	IS3203	Systems Analysis and Design	Essential	4
		IS3204	Programming Application	Essential	4
		IS3305	Emerging Technologies	Specialised	4
		IS3306	Information Systems Management	Specialised	4
		WD3202	User Experience Design	Essential	4
	Total Credit Value				20
	Semester 4	IS4307	Systems Design and Development	Specialised	4
		IS4308	Advanced Programming	Specialised	4
		IS4209	Database Design and Implementation	Essential	4
		IS4310	Mobile Application and Development	Specialised	4
Total Credit Value				16	
Year 3	Semester 5	IS5211	Project Management	Essential	2
		IT5101	Final Year Project	Core	8
		Total Credit Value			
	Semester 6	IN4101	Internship	Core	8
		EM1188	Enrichment*	Core	2
Total Credit Value				10	
Total Credit Value for the Whole Programme				90	

*Enrichment module commences throughout three (3) years Diploma programme.

LIBRARY INFORMATICS & COMPUTING

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	28
Specialisation Modules	28
TOTAL	90

These are the modules that are considered fundamental modules for Library Informatics and Computing 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	IS1201	Computer Systems Architecture	3
	IS1202	Information Systems Essentials	3
2	DM2201	Multimedia and Creative Technology	3
	NS2201	Network Fundamentals	3
	WD2201	Basic Web Programming	3
	LC2201	Introduction to Informatics	3
3	IS3203	Systems Analysis and Design	4
4	IS4209	Database Design and Implementation	4
5	IS5211	Project Management	2

These specialisation modules are available for Library Informatics and Computing programme. These modules will allow students to pursue in greater depth their chosen discipline. Students taking this programme are expected to undertake ALL the specialization modules in Semester 3 and Semester 4 as specified below.

SEMESTER	MODULE CODE	SPECIALISATION MODULES	CREDIT VALUE
3	LC3302	Collection Development and Management	4
	LC3303	Digital Libraries	4
	LC3304	Information Retrieval and Storage	4
	LC3305	Customer Relations and Services	4
4	LC4306	Library Administration and Management	4
	LC4307	Library Marketing	4
	LC4308	Archives and Heritage Preservation	4

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	GS1123	Mathematics for Library Informatics & Computing	Core	3
		GS1112	Communication Skills for Computing	Core	3
		HS1101	Health, Safety, Security and Environment	Core	3
		IS1201	Computer Systems Architecture	Essential	3
		IS1202	Information Systems Essentials	Essential	3
	Total Credit Value				15
	Semester 2	GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		BE1101	Entrepreneurship	Core	3
		DM2201	Multimedia and Creative Technology	Essential	3
		NS2201	Network Fundamentals	Essential	3
		WD2201	Basic Web Programming	Essential	3
		LC2201	Introduction to Informatics	Essential	3
	Essential Total Credit Value				19
Year 2	Semester 3	IS3203	Systems Analysis and Design	Essential	4
		LC3302	Collection Development and Management	Specialised	4
		LC3303	Digital Libraries	Specialised	4
		LC3304	Information Retrieval and Storage	Specialised	4
		LC3305	Customer Relations and Services	Specialised	4
	Total Credit Value				20
	Semester 4	IS4209	Database Design and Implementation	Essential	4
		LC4306	Library Administration and Management	Specialised	4
		LC4307	Library Marketing	Specialised	4
		LC4308	Archives and Heritage Preservation	Specialised	4
Total Credit Value				16	
Year 3	Semester 5	IS5211	Project Management	Essential	2
		IT5101	Final Year Project	Core	8
	Total Credit Value				10
	Semester 6	IN4101	Internship	Core	8
		EM1188	Enrichment*	Core	2
Total Credit Value				10	
Total Credit Value for the Whole Programme				90	

*Enrichment module commences throughout three (3) years Diploma programme

WEB DEVELOPMENT

This programme is composed of the following modular components.

MODULAR COMPONENTS	CREDIT VALUES
Core Modules	34
Essential Modules	40
Specialization Modules	16
TOTAL	90

These are the modules that are considered fundamental modules for Web Development 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	IS1201	Computer Systems Architecture	3
	IS1202	Information Systems Essentials	3
2	DM2201	Multimedia and Creative Technology	3
	NS2201	Network Fundamentals	3
	WD2201	Basic Web Programming	3
	LC2201	Introduction to Informatics	3
3	IS3203	Systems Analysis and Design	4
	NS3202	Cyber Security	4
	WD3202	User Experience Design	4
	WD3203	Web Design	4
4	IS4209	Database Design and Implementation	4
5	IS5211	Project Management	2

These specialization modules are available for Web Development programme. These modules will allow students to pursue in greater depth their chosen discipline. Students taking this programme are expected to undertake ALL the specialisation modules in Semester 3 and Semester 4 as specified below.

SEMESTER	MODULE CODE	SPECIALISATION MODULES	CREDIT VALUE
3	WD3304	Web Technologies	4
4	WD3305	Mobile in Web Environment	4
	WD3306	Advanced Web Programming	4
	WD3307	Web Application and Development Tools	4

Session	Module Code	Module Title	Module Type	Credit Value	
Year 1	Semester 1	GS1122	Mathematics for Computing	Core	3
		GS1112	Communication Skills for Computing	Core	3
		HS1101	Health, Safety, Security and Environment	Core	3
		IS1201	Computer Systems Architecture	Essential	3
		IS1202	Information Systems Essentials	Essential	3
	Total Credit Value				15
	Semester 2	GS1101	Pengajian Melayu Islam Beraja	Core	2
		GS1102	Pendidikan Islam	Core	2
		BE1101	Entrepreneurship	Core	3
		DM2201	Multimedia and Creative Technology	Essential	3
		NS2201	Network Fundamentals	Essential	3
		WD2201	Basic Web Programming	Essential	3
		LC2201	Introduction to Informatics	Essential	3
	Total Credit Value				19
Year 2	Semester 3	IS3203	Systems Analysis and Design	Essential	4
		NS3202	Cyber Security	Essential	4
		WD3202	User Experience Design	Essential	4
		WD3203	Web Design	Essential	4
		WD3304	Web Technologies	Specialised	4
	Total Credit Value				20
	Semester 4	IS4209	Database Design and Implementation	Essential	4
		WD3305	Mobile in Web Environment	Specialised	4
		WD3306	Advanced Web Programming	Specialised	4
		WD3307	Web Application and Development Tools	Specialised	4
Total Credit Value				16	
Year 3	Semester 5	IS5211	Project Management	Essential	2
		IT5101	Final Year Project	Core	8
		Total Credit Value			
	Semester 6	IN4101	Internship	Core	8
		EM1188	Enrichment*	Core	2
Total Credit Value				10	
Total Credit Value for the Whole Programme				90	

*Enrichment module commences throughout three (3) years Diploma programme.