

KEY ACCREDITATION ATTRIBUTES - ICT PROGRAM DESIGN AND CONTENT

The following sections show the accreditation data for the ICT program upon which accreditation was awarded. Each major has its own subsection.

BIT with Network Security Major

Testamur Title: Bachelor of Information Technology (Network Security Major)

Transcript Title: Bachelor of Information Technology (Network Security Major)

A.2 General Structure

Year 1		Year 2		Year 3	
Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2
BIT105 Business Enquiry and Communication	BIT112 Mathematics for Information Technology	BIT231 Database Systems <i>Prerequisites: BIT111</i>	BIT241 Professional IT Practice and Ethics <i>Prerequisites: BIT101, BIT105</i>	BIT371 ★ Capstone Experience 1 <i>Prerequisites: See legend</i>	BIT372 ★ Capstone Experience 2 <i>Prerequisites: BIT371</i>
BIT101 Foundations of Information Technology	BIT108 Foundations of Business	BIT230 Systems Analysis and Design <i>Prerequisites: BIT101, BIT111</i>	BIT242 IT Project Management <i>Prerequisites: BIT230, BIT111, BIT101</i>	BIT352 ★ System Implementation and Service Management <i>Prerequisites: BIT242, BIT230, BIT111, BIT101</i>	BIT361 Security Management and Governance <i>Prerequisites: BIT241, BIT101, BIT105</i>
BIT111 Programming Concepts	Elective	BIT233 Network Design <i>Prerequisites: BIT121</i>	BIT243 Network Security <i>Prerequisites: BIT121</i>	BIT353 ★ Network Architecture and Protocols <i>Prerequisites: BIT233, BIT121</i>	BIT362 Digital Forensics <i>Prerequisites: BIT243, BIT121</i>
BIT121 Network Communication Concepts	Elective	Elective	BIT244 IT and Business Crime <i>Prerequisites: BIT101</i>	BIT354 ★ Network Vulnerability and Penetration Testing <i>Prerequisites: BIT243, BIT121</i>	Elective
Legend	Colour Code	Notes			
Core		Capstone projects must be in the student's selected major Project must be in the student's major with prerequisite of BIT242 and minimum prerequisite of 3 major units and co-requisite of 2 major units			
Major					

B. Professional Role(s) and ICT Skills

B. ICT Skills for Professional Role	ROLE: Digital Forensic Specialist	
<i>SFIA Skill Code</i>	<i>SFIA level</i>	<i>Subject Code & Title</i>
SCTY	3-4	BIT233, BIT243, BIT244, BIT353, BIT354, BIT361, BIT371, BIT372
DGFS	3-4	BIT233, BIT243, BIT244, BIT353, BIT362, BIT354, BIT371, BIT372
PENT	3-4	BIT243, BIT233, BIT354, BIT362, BIT371, BIT372

C. Depth and Coverage of ICT Knowledge in Core

	ICT Ethics	Impacts of ICT	Working individually and as a team	Professional Communication	The Professional Practitioner	ICT Fundamentals	ICT Infrastructure	Information and Data Science Engineering	Computational Science and Engineering	Application Systems	Cyber Security	ICT Projects	ICT Management and Governance	
Mandatory Subjects	Professional				Core									In-depth
Common Core Subjects														
BIT101 Foundations of Information Technology		1	1			1								1
BIT105 Business Enquiry and Communication				1										
BIT108 Foundations of Business													1	
BIT111 Programming Concepts						1			1					1
BIT112 Mathematics for IT														1
BIT121 Network Communication Concepts							1							1
BIT230 System Analysis and Design						2			2	1				2
BIT231 Database Systems								2						2
BIT241 Professional It Practice and Ethics	2	2			2									2
BIT242 IT Project Management			2	2								2		
BIT352 System Implementation and Service Management													3	3
BIT361 Security Management and Governance	3	3			3						3		2	3
BIT371 Capstone Experience 1			3		3					3		3		3
BIT371 Capstone Experience 2	3			3				3	3			3		3
Network Security Major														
BIT233 Network Design						2	2							2
BIT243 Network Security											2			2
BIT 244 IT and Business Crime	2	2			1									2
BIT353 Network architecture and Protocols							3							3
BIT354 Network Vulnerability and Penetration Testing							3				3			3
BIT362 Digital Forensics	2	3				3					3			3
	Professional				Core									

Breadth of CBoK: adequate

Depth of CBoK: appropriate

Discipline-Specific BoK: CyBOK

D. Advanced Knowledge to address Complex Computing

Below are the units claimed as Advanced - however, the panel believes that neither BIT353 nor BIT262 meet the criteria for complex problem solving. Furthermore, there are concerns about the apparent lack of ethics and security in the capstone project

In-depth units:

BIT353 Network Architecture and Protocols

BIT354 Network Vulnerability and Penetration Testing

Applied ICT units:

BIT371/BIT372 Capstone 1/2

E. Integrated and Applied ICT Knowledge

BIT371/BIT372 Capstone 1/2

BIT with Business Analytics Major

Testamur Title: Bachelor of Information Technology (Business Analytics Major)

Transcript Title: Bachelor of Information Technology (Business Analytics Major)

A.2 General Structure

Year 1		Year 2		Year 3	
Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2
BIT105 Business Enquiry and Communication	BIT112 Mathematics for Information Technology	BIT231 Database Systems <i>Prerequisites:</i> BIT111	BIT241 Professional IT Practice and Ethics <i>Prerequisites:</i> BIT101, BIT105	BIT371★ Capstone Experience 1 <i>Prerequisites:</i> See legend	BIT372★ Capstone Experience 2 <i>Prerequisites:</i> BIT371
BIT101 Foundations of Information Technology	BIT108 Foundations of Business	BIT230 Systems Analysis and Design <i>Prerequisites:</i> BIT101, BIT111	BIT242 IT Project Management <i>Prerequisites:</i> BIT230, BIT111, BIT101	BIT352★ System Implementation and Service Management <i>Prerequisites:</i> BIT242, BIT230, BIT111, BIT101	BIT361 Security Management and Governance <i>Prerequisites:</i> BIT241, BIT101, BIT105
BIT111 Programming Concepts	Elective	BIT236 Enterprise Resource Planning <i>Prerequisites:</i> BIT231, BIT111	BIT245 Web Development <i>Prerequisites:</i> BIT111	BIT355★ Business Intelligence <i>Prerequisites:</i> BIT236, BIT230, BIT111, BIT101	BIT363★ e-Business Systems <i>Prerequisites:</i> BIT245, BIT230, BIT111, BIT101
BIT121 Network Communication Concepts	Elective	Elective	BIT357 Business Analysis <i>Prerequisites:</i> BIT230, BIT111, BIT101	BIT356★ Knowledge Management Systems <i>Prerequisites:</i> BIT236, BIT231, BIT230, BIT111, BIT101	Elective
Legend	Colour Code	Notes			
Core		Capstone projects must be in the student's selected major Project must be in the student's major with prerequisite of BIT242 and minimum prerequisite of 3 major units and co-requisite of 2 major units			
Major					
Elective		Typically from alternative major study where prerequisites are satisfied			
Advanced Subjects	★	As specified for criterion D			

B. Professional Role(s) and ICT Skills

B. ICT Skills for Professional Role	ROLE: Junior ICT Business Analyst	
SFIA Skill Code	SFIA level	Subject Code & Title
BUSA	3-4	BIT357, BIT363, BIT371, BIT372
REQM	2-4	BIT230, BIT236, BIT245, BIT357, BIT355 ,BIT371, BIT372
BSMO	2-4	BIT230, BIT355, BIT356, BIT357, BIT363, BIT371, BIT372

C. Depth and Coverage of ICT Knowledge in Core

	ICT Ethics	Impacts of ICT	Working individually and as a team	Professional Communication	The Professional Practitioner	ICT Fundamentals	ICT Infrastructure	Information and Data Science Engineering	Computational Science and Engineering	Application Systems	Cyber Security	ICT Projects	ICT Management and Governance	
Mandatory Subjects	Professional					Core								In-depth
Common Core Subjects														
BIT101 Foundations of Information Technology		1	1			1								1
BIT105 Business Enquiry and Communication				1										
BIT108 Foundations of Business													1	
BIT111 Programming Concepts						1			1					1
BIT112 Mathematics for IT														1
BIT121 Network Communication Concepts							1							1
BIT230 System Analysis and Design						2			2	1				2
BIT231 Database Systems								2						2
BIT241 Professional It Practice and Ethics	2	2			2									2
BIT242 IT Project Management			2	2								2		
BIT352 System Implementation and Service Management													3	3
BIT361 Security Management and Governance	3	3			3						3		2	3
BIT371 Capstone Experience 1			3		3					3		3		3
BIT372 Capstone Experience 2	3			3				3	3			3		3
Business Analytics														
BIT236 Enterprise Resource Planning							1	2	1			2		2
BIT245 Web Development*						1				2	1	1		2
BIT357 Business Analysis			2	3		3							2	3
BIT355 Business Intelligence	2	2					1	3	3					3
BIT356 Knowledge Management Systems	2	2	1	2		3		3		3			2	3
BIT363 e-Business Systems	2	3	2	2			2		2	3	1	3		3
	Professional					Core								

Breadth of CBoK: adequate

Depth of CBoK: appropriate

Discipline-Specific BoK: BaBOK

D. Advanced Knowledge to address Complex Computing

Below are the units claimed as Advanced - however, the panel believes that BIT355, BIT357 and BIT363 do not meet the criteria for complex problem solving. Furthermore, there are concerns about the apparent lack of ethics and security in the capstone project

In-depth units:

BIT355 Business Intelligence

BIT356 Knowledge Management Systems

BIT363 e-Business Systems

Applied ICT units:

BIT371/BIT372 Capstone 1/2

E. Integrated and Applied ICT Knowledge

BIT371/BIT372 Capstone 1/2

BIT with Software Development Major

Testamur Title: Bachelor of Information Technology (Software Development Major)

Transcript Title: Bachelor of Information Technology (Software Development Major)

A.2 General Structure

Year 1		Year 2		Year 3	
Semester 1	Semester 2	Semester 1	Semester 2	Semester 1	Semester 2
BIT105 Business Enquiry and Communication	BIT112 Mathematics for Information Technology	BIT231 Database Systems <i>Prerequisites: BIT111</i>	BIT241 Professional IT Practice and Ethics <i>Prerequisites: BIT101, BIT105</i>	BIT371 ★ Capstone Experience 1 <i>Prerequisites: See legend</i>	BIT372 ★ Capstone Experience 2 <i>Prerequisites: BIT371</i>
BIT101 Foundations of Information Technology	BIT108 Foundations of Business	BIT230 Systems Analysis and Design <i>Prerequisites: BIT101, BIT111</i>	BIT242 IT Project Management <i>Prerequisites: BIT230, BIT111, BIT101</i>	BIT352 ★ System Implementation and Service Management <i>Prerequisites: BIT242, BIT230, BIT111, BIT101</i>	BIT361 Security Management and Governance <i>Prerequisites: BIT241, BIT101, BIT105</i>
BIT111 Programming Concepts	Elective	BIT235 Object Oriented Programming <i>Prerequisites: BIT245, BIT111</i>	BIT246 Object Oriented RAD <i>Prerequisites: BIT235, BIT245, BIT111</i>	BIT351 ★ Mobile Application Development <i>Prerequisites: BIT245, BIT235 BIT111</i>	BIT364 Non-Relational Database Management <i>Prerequisites: BIT231, BIT111</i>
BIT121 Network Communication Concepts	Elective	Elective	BIT245 Web Development <i>Prerequisites: BIT111</i>	BIT358 ★ Advanced Databases <i>Prerequisites: BIT231, BIT111</i>	Elective
Legend	Colour Code	Notes			
Core		Capstone projects must be in the student's selected major Project must be in the student's major with prerequisite of BIT242 and minimum prerequisite of 3 major units and co-requisite of 2 major units			
Major					
Elective		Typically from alternative major study where prerequisites are satisfied			
Advanced Subjects	★	As specified for criterion D			

B. Professional Role(s) and ICT Skills

B. ICT Skills for Professional Role	ROLE: Software Developer	
<i>SFIA Skill Code</i>	<i>SFIA level</i>	<i>Subject Code & Title</i>
PROG	3-4	BIT111, BIT235, BIT245, BIT246, BIT351, BIT358, BIT371, BIT372
SWDN	3-4	BIT111, BIT230, BIT235, BIT245, BIT246, BIT351, BIT371, BIT372
TEST	3-4	BIT111, BIT230, BIT235, BIT352, BIT371, BIT372

C. Depth and Coverage of ICT Knowledge in Core

	ICT Ethics	Impacts of ICT	Working individually and as a team	Professional Communication	The Professional Practitioner	ICT Fundamentals	ICT Infrastructure	Information and Data Science Engineering	Computational Science and Engineering	Application Systems	Cyber Security	ICT Projects	ICT Management and Governance	
Mandatory Subjects	Professional					Core								In-depth
Common Core Subjects														
BIT101 Foundations of Information Technology		1	1			1								1
BIT105 Business Enquiry and Communication				1										
BIT108 Foundations of Business													1	
BIT111 Programming Concepts						1			1					1
BIT112 Mathematics for IT														1
BIT121 Network Communication Concepts							1							1
BIT230 System Analysis and Design						2			2	1				2
BIT231 Database Systems								2						2
BIT241 Professional It Practice and Ethics	2	2			2									2
BIT242 IT Project Management			2	2								2		
BIT352 System Implementation and Service Management													3	3
BIT361 Security Management and Governance	3	3			3						3		2	3
BIT371 Capstone Experience 1			3		3					3		3		3
BIT372 Capstone Experience 2	3			3				3	3			3		3
Software Development														
BIT235 Object Oriented Programming						2		1	2	1		1		2
BIT246 Object Oriented RAD						3			3	2				2
BIT245 Web Development*							1			2	1	1		2
BIT351 Mobile Application Development		2				3			3					3
BIT358 Advanced Databases				1				3			2			3
BIT364 Non-Relational Databases		2		2				3			2	1		3
	Professional					Core								

Breadth of CBoK: adequate

Depth of CBoK: appropriate

Discipline-Specific BoK: SWEBOK

D. Advanced Knowledge to address Complex Computing

Below are the units claimed as Advanced - however, the panel believes that neither BIT352 nor BIT351 meet the criteria for complex problem solving and that the students are given too much direction in BIT358. Furthermore, there are concerns about the apparent lack of ethics and security in the capstone project

In-depth units:

BIT351 Mobile Application Development

BIT358 Advanced Databases

BIT352 System Implementation and Service Management

Applied ICT units:

BIT371/BIT372 Capstone 1/2

E. Integrated and Applied ICT Knowledge

BIT371/BIT372 Capstone 1/2

F. Preparation for ICT Professional Practice

Melbourne Polytechnic's Bachelor of Information Technology aims to ensure that on completion of the course, its graduates are well-rounded and professional ready.

In the two capstone subjects, these elements are all integrated in a year-long project where students within each IT major, working in project teams, scope, plan and develop a project involving innovation and entrepreneurship that is a solution to a real-world industry problem. Each project has a sponsor which in most cases is an actual business.

G. Pathways

The course structure for the HEBSIT has an entry point for students articulating from the following diplomas. The following tables provide an overview of the articulation agreements currently in place for both courses: table 1a: Articulation agreements (Internal) – HEBSIT

Articulation Partner	Qualification being awarded credits	Credits awarded	Link to Articulation Agreements
Melbourne Polytechnic	Diploma of Information Technology	Up to 96 credit points awarded	HECC-HEBSIT-20220620 – 5.2.1.pdf
	Diploma of Information Technology (FMP)	Up to 96 credit points awarded	

Both of the above are articulations from accredited Australian VET diplomas. The difference between the two is that

1. the first is delivered domestically at the Preston camps of Melbourne Polytechnic while the second is delivered at the Fuzhou campus in China
2. The first delivers “ICTWEB451 Apply structured query language in relational databases” whilst the second delivers both “ICTWEB451 Apply structured query language in relational databases” and “ICTSAD501 Model data objects”. Thus, completion of the first receives a credit for an unspecified elective whilst completion of the second receives a credit for “BIT231 Database Systems”.

table 1b: MP – FMP Articulation Agreement – HEBSITAD into HEBSIT

Articulation Partner	Agreement type	Qualification being awarded credits	Credits awarded	Entry requirements
Fuzhou Melbourne Polytechnic HECCHEBSIT-20220620 – 5.2.2.pdf	Internal	FMP Associate Degree of Information Technology	192 credit points	Students must have an IELTS Level 6 or equivalent

Melb Poly has set up Fuzhou Melbourne Polytechnic to deliver the MP Associate Degree of Information Technology offshore in Fuzhou (essentially the same as the one they deliver in Melbourne). This consists of 16 subjects, each of 12 cp =192 cp (essentially the first two years of the Melb Poly BIT plus the students also study 4 extra Chinese subjects).

Of these 16 MP subjects, 10 subjects are taught by MP staff, 6 by FMP staff

Students may exit after these 192 cp with an MP Associate Degree of Information Technology.

OR they may transfer to Melbourne to take the final year of the MP BIT.