

**The College of Science, Health,
Engineering & Education**



Murdoch
UNIVERSITY

Sample Study Plans

Undergraduate Information Technology Courses

Semester 1, 2019

Disclaimer: This course plan is a sample only and must be read in conjunction with the full course structure, unit prerequisites and enrolment options as per the online [Handbook](#) Correct as at 21/1/2019

Academic Chairs

Course Title / Major	Academic Chair	Phone	Location
Business Information Systems (BSc)	Mr Alex Wang A.Wang@murdoch.edu.au	9360 2793	Science and Computing, Room 1.005
Computer Science (BSc)	Mr Shri Rai s.rai@murdoch.edu.au	9360 6090	Science and Computing, Room 1.019
Cyber Security and Forensics (BSc)	Dr Danny Toohey D.Toohey@murdoch.edu.au	9360 2800	Science and Computing, Room 1.020
Games Software Design and Production (BSc)	Dr Mohd Fairuz Shiratuddin F.Shiratuddin@murdoch.edu.au	9360 2794	Science and Computing, Room 1.014
Games Technology (BSc)	Mr Shri Rai s.rai@murdoch.edu.au	9360 6090	Science and Computing, Room 1.019
Mobile and Web Application Development (BSc)	Mr Shri Rai s.rai@murdoch.edu.au	9360 6090	Science and Computing, Room 1.019
Internetworking and Network Security (BSc)	Mr Terry Koziniec T.Koziniec@murdoch.edu.au	9360 2797	Science and Computing, Room 1.022

Head of Information Technology Discipline

Associate Professor, Hamid Laga

H.Laga@murdoch.edu.au

Telephone: 9360 2325

Deputy Head of Information Technology Discipline

Dr David Murray

Telephone: 9360 2723

D.Murray@murdoch.edu.au

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Double Majors

All students are advised to complete a double major. The time taken for a double major is the same as that for a single major if you complete core (required) units of your second major in place of the electives of the first major.

Sample plans for all IT single majors and some double majors are included here.

If you wish to complete a double major not listed here, please speak to the relevant academic chair.

Advanced Standing

Students who have been granted Advanced Standing for prior learning should contact their Academic Chair for course planning advice.

Course Plan (Sample Only)

B1317 BSc Business Information Systems

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option 3pts	ICT158 Introduction to Information Systems 3pts
	12pts	12pts
Year 2	BSC203 Introduction to ICT Research Methods 3pts	<i>BRD2xx¹ University Breadth Unit</i> 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	Option 3pts	ICT292 Information Systems Management 3pts
	Option 3pts	Option 3pts
	12pts	12pts
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT394 Business Intelligence Application Development 3pts	ICT393 Advanced Business Analysis and Design 3pts
	Option 3pts	ICT301 Enterprise Architectures 3pts
	Option 3pts	Option 3pts
	12pts	12pts

¹Any of the BRDXX2 coded units may be chosen.

Please see <http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Computer Science Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? (MAS162 if MAS164 completed) 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option 3pts	ICT167 Principles of Computer Science <u>12pts</u>
	Recommended: ICT171 Introduction to Server Environments and Architectures (BSC150 ¹ - if completing MAS164) <u>12pts</u>	
Year 2	BSC203 Introduction to ICT Research Methods 3pts	BRD2xx ² University Breadth Unit 3pts
	ICT283 Data Structures and Abstractions 3pts	ICT285 Databases 3pts
	ICT284 Systems Analysis and Design 3pts	Option 3pts
	Option 3pts	Recommended: ICT286 Web and Mobile Computing 3pts
	Recommended: ICT289 Computer Graphics Principles and Programming <u>12pts</u>	Option <u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT373 Software Architectures 3pts	ICT374 Operating Systems and Systems Programming 3pts
	Option 3pts	ICT319 Intelligent Systems 3pts
	Option 3pts	Option 3pts
	<u>12pts</u>	<u>12pts</u>

¹ First year students who are required to complete MAS164 should select the unit indicated in blue.

² Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discrete Mathematics and Management Science.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Cyber Security and Forensics

Semester 1 2019 entry

	Semester 1		Semester 2	
Year 1	BSC100 Building Blocks for Science Students ICT159 Foundations of Programming MAS162 Foundations of Discrete Mathematics (see unit pre-requisites – MAS164) ICT171 Introduction to Server Environments and Architectures	3pts 3pts 3pts 3pts 12pts	BSC150 What is Science? ICT169 Foundations of Data Communications ICT170 Foundations of Computer Systems Option	3pts 3pts 3pts 3pts 12pts
Year 2	BSC203 Introduction to ICT Research Methods ICT284 Systems Analysis and Design ICT287 Computer Security Option	3pts 3pts 3pts 3pts 12pts	BRD2xx ¹ University Breadth Unit ICT285 Databases Option Option	3pts 3pts 3pts 3pts 12pts
Year 3	BSC301 Applied Research Skills in ICT ICT378 Computer Forensics ICT380 Information Security Policy and Governance Option	3pts 3pts 3pts 3pts 12pts	ICT302 IT Professional Practice Project ICT379 Security Architectures and Systems Administration Option Option	3pts 3pts 3pts 3pts 12pts

¹ Any of the BRD2 coded units may be chosen. Please see:

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Suggestions for General Electives:

S1:

ICT291 (ICT169 as pre-req)
 ICT394 (ICT285)
 ICT396 (ICT284)

S2:

ICT158
 ICT167 (ICT159)
 ICT292 (ICT158 OR ICT170)
 ICT286 (ICT159)
 ICT369 (ICT159)

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Course Plan (Sample Only)

B1317 BSc Games Software Design and Production Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites – MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option 3pts	ICT167 Principles of Computer Science 3pts
	12pts	12pts
Year 2	BSC203 Introduction to ICT Research Methods 3pts	<i>BRD2xx¹ University Breadth Unit</i> 3pts
	ICT288 Games Software Design 3pts	ICT285 Databases 3pts
	ICT284 Systems Analysis and Design 3pts	Option 3pts
	Option 3pts	Option 3pts
	12pts	12pts
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT367 Games Software Production 3pts	ICT365 Software Development Frameworks 3pts
	ICT396 User Interface Design 3pts	Option 3pts
	Option 3pts	Option 3pts
	12pts	12pts

¹ Any of the BRD2 coded units may be chosen. Please see:

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Course Plan (Sample Only)

B1317 BSc Games Technology

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? (MAS162 if MAS164 completed) 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites) (MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option	ICT167 Principles of Computer Science 3pts
	Recommended: ICT171 Introduction to Server Environments and Architectures (BSC150 ¹ - if completing MAS164) 3pts	
	<u>12pts</u>	<u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods. 3pts	BRD2xx ² University Breadth Unit 3pts
	ICT283 Data Structures and Abstractions 3pts	ICT290 Games Design and Programming 3pts
	ICT289 Computer Graphics Principles and Programming 3pts	Option 3pts
	Option 3pts	Recommended: ICT285 Databases. 3pts
	Recommended: ICT284 Systems Analysis and Design. 3pts	Option 3pts
	<u>12pts</u>	<u>12pts</u>
Year 3	BSC301 Applied Research skills in IT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT397 Advanced Games Design and Programming 3pts	ICT398 Virtual Environments for Games and Simulations 3pts
	ICT371 Games Development 3pts	Option 3pts
	Option 3pts	Recommended: ICT374 Operating Systems and Systems Programming 3pts
	Recommended: ICT373 Software Architectures 3pts	Option 3pts
	<u>12pts</u>	<u>12pts</u>

¹ First year students who are required to complete MAS164 should select the unit indicated in blue.

Option: The recommended general electives shown above will give you a strong foundation in Games Technology and Information Technology.

² Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discrete Mathematics and Management Science. For Breadth Unit selection please see

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Course Plan (Sample Only)

B1317 BSc Internetworking and Network Security

Semester 1 2019 entry

	Semester 1		Semester 2	
Year 1	BSC100 Building Blocks for Science Students	3pts	BSC150 What is Science?	3pts
	ICT159 Foundations of Programming	3pts	ICT169 Foundations of Data Communications	3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites – MAS164)	3pts	ICT170 Foundations of Computer Systems	3pts
	ICT171 Introduction to Server Environments and Architectures	3pts	Option	3pts
		12pts		12pts
Year 2	BSC203 Introduction to ICT Research Methods	3pts	<i>BRD2xx</i> ¹ University Breadth Unit	3pts
	ICT284 Systems Analysis and Design	3pts	ICT285 Databases	3pts
	ICT291 Network Design and Implementation	3pts	Option	3pts
	Option	3pts	Option	3pts
		12pts		12pts
Year 3	BSC301 Applied Research Skills in ICT	3pts	ICT302 IT Professional Practice Project	3pts
	ICT377 Network Security	3pts	ICT369 Wireless and Interactive Networks	3pts
	Option	3pts	ICT372 Advanced Network Design and Implementation	3pts
	Option	3pts	Option	3pts
		12pts		12pts

¹Any of the BRDXX2 coded units may be chosen.

Please see <http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Mobile and Web Application Development

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? (MAS162 if MAS164 completed) 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option 3pts	ICT167 Principles of Computer Science 3pts
	Recommended: ICT171 Introduction to Server Environments and Architectures (BSC150 ¹ - if completing MAS164)	<u>12pts</u>
	<u>12pts</u>	
Year 2	BSC203 Introduction to ICT Research Methods 3pts	BRD2xx ² University Breadth Unit 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	Option 3pts	ICT286 Web and Mobile Computing 3pts
	Recommended: ICT289 Computer Graphics Principles and Programming 3pts	Option 3pts
	Option	<u>12pts</u>
	<u>12pts</u>	
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT375 Advanced Web Programming 3pts	ICT365 Software Development Frameworks 3pts
	Option 3pts	ICT376 Mobile Application Development 3pts
	Option 3pts	Option 3pts
	<u>12pts</u>	<u>12pts</u>

¹ First year students who are required to complete MAS164 should select the unit indicated in blue.

² Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discrete Mathematics and Management Science.

For Breadth Unit selection please see

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Course Plan (Sample Only)

B1317 BSc Computer Science / Games Technology Double Major

Semester 1 2019 Entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? (MAS162 if MAS164 completed) 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option 3pts Recommended: ICT171 Introduction to Server Environments and Architectures (BSC150 ¹ - if completing MAS164)	ICT167 Principles of Computer Science 3pts
	<u>12pts</u>	<u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods. 3pts	BRD2xx ¹ University Breadth Unit 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	ICT283 Data Structures and Abstractions 3pts	ICT290 Games Design and Programming 3pts
	ICT289 Computer Graphics Principles and Programming 3pts	Option 3pts Recommended ICT286 Web and Mobile Computing
	<u>12pts</u>	<u>12pts</u>
Year 3	BSC301 Applied Research skills in IT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT373 Software Architectures 3pts	ICT374 Operating Systems and Systems Programming 3pts
	ICT397 Advanced Games Design and Programming 3pts	ICT319 Intelligent Systems 3pts
	ICT371 Games Development 3pts	ICT398 Virtual Environments for Games and Simulations 3pts
	<u>12pts</u>	<u>12pts</u>

¹ First year students who are required to complete MAS164 should select the unit indicated in blue.

² Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discrete Mathematics and Management Science.
For Breadth Unit selection please see

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Course Plan (Sample Only)

B1317 BSc Computer Science / Mobile and Web Application Development Double Major Semester 1 2019 entry

	Semester 1		Semester 2	
Year 1	BSC100 Building Blocks for Science Students	3pts	BSC150 What is Science? (MAS162 if MAS164 completed)	3pts
	ICT159 Foundations of Programming	3pts	ICT169 Foundations of Data Communications	3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites - MAS164)	3pts	ICT170 Foundations of Computer Systems	3pts
	Option	3pts	ICT167 Principles of Computer Science	3pts
	Recommended: ICT171 Introduction to Server Environments and Architectures (BSC150 ¹ - if completing MAS164)	<u>12pts</u>		<u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods	3pts	BRD2xx ² University Breadth Unit	3pts
	ICT283 Data Structures and Abstractions	3pts	ICT285 Databases	3pts
	ICT284 Systems Analysis and Design	3pts	ICT286 Web and Mobile Computing	3pts
	Option	3pts	ICT319 Intelligent Systems	3pts
	Recommended: ICT289 Computer Graphics Principles and Programming	<u>12pts</u>		<u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT	3pts	ICT302 IT Professional Practice Project	3pts
	ICT373 Software Architectures	3pts	ICT374 Operating Systems and Systems Programming	3pts
	ICT375 Advanced Web Programming	3pts	ICT365 Software Development Frameworks	3pts
	Option	3pts	ICT376 Mobile Application Development	3pts
		<u>12pts</u>		<u>12pts</u>

¹ First year students who are required to complete MAS164 should select the unit indicated in blue.

² Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discreet Mathematics and Management Science. For Breadth Unit selection please see <http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

Course Plan (Sample Only)

B1317 BSc Computer Science / Cyber Security and Forensics Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	ICT171 Introduction to Server Environments and Architectures 3pts	ICT167 Principles of Computer Science 3pts
	<u>12pts</u>	<u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts	BRD2xx ¹ University Breadth Unit 3pts
	ICT283 Data Structures and Abstractions 3pts	ICT285 Databases 3pts
	ICT284 Systems Analysis and Design 3pts	Option 3pts
	ICT287 Computer Security 3pts	Option 3pts
	<u>12pts</u>	<u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT373 Software Architectures 3pts	ICT374 Operating Systems and Systems Programming 3pts
	ICT378 Computer Forensics 3pts	ICT319 Intelligent Systems 3pts
	ICT380 Information Security Policy and Governance 3pts	ICT379 Security Architectures and Systems Administration 3pts
	<u>12pts</u>	<u>12pts</u>

¹Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discreet Mathematics and Management Science.

For Breadth Unit selection please see

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Course Plan (Sample Only)

B1317 BSc Games Technology/Mobile and Web Application Development

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? (MAS162 if MAS164 completed) 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites - MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option	ICT167 Principles of Computer Science 3pts
	Recommended: ICT171 Introduction to Server Environments and Architectures) (BSC150 ¹ - if completing MAS164) 3pts	
	<u>12pts</u>	<u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts	BRD2xx ² University Breadth Unit 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	ICT283 Data Structures and Abstractions 3pts	ICT286 Web and Mobile Computing 3pts
	ICT289 Computer Graphics Principles and Programming 3pts	ICT290 Games Design and Programming 3pts
		<u>12pts</u>
	<u>12pts</u>	<u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT375 Advanced Web Programming 3pts	ICT365 Software Development Frameworks 3pts
	ICT397 Advanced Games Design and Programming 3pts	ICT376 Mobile Application Development 3pts
	ICT371 Games Development 3pts	ICT398 Virtual Environments for Games and Simulations 3pts
		<u>12pts</u>
	<u>12pts</u>	<u>12pts</u>

¹ First year students who are required to complete MAS164 should select the unit indicated in blue.

² Any of the BRD2 coded units may be chosen. Will also accept PEN120 General Physics or MAS225 Discreet Mathematics and Management Science. For Breadth Unit selection please see <http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

Course Plan (Sample Only)

B1317 BSc Computer Science / Internetworking and Network Security Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts ICT159 Foundations of Programming 3pts MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts ICT171 Introduction to Server Environments and Architectures 3pts <u>12pts</u>	BSC150 What is Science? 3pts ICT169 Foundations of Data Communications 3pts ICT170 Foundations of Computer Systems 3pts ICT167 Principles of Computer Science 3pts <u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts ICT283 Data Structures and Abstractions 3pts ICT284 Systems Analysis and Design 3pts ICT291 Network Design and Implementation 3pts <u>12pts</u>	BRD2xx ¹ University Breadth Unit 3pts ICT285 Databases 3pts ICT319 Intelligent Systems 3pts Option 3pts <u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts ICT373 Software Architectures 3pts ICT377 Network Security 3pts Option 3pts <u>12pts</u>	ICT302 IT Professional Practice Project 3pts ICT374 Operating Systems and Systems Programming 3pts ICT369 Wireless and Interactive Networks 3pts ICT372 Advanced Network Design and Implementation 3pts <u>12pts</u>

¹ Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

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Course Plan (Sample Only)

B1317 BSc Internetworking and Network Security/ Cyber Security and Forensics Double Major

Semester 1 2019 entry

	Semester 1		Semester 2	
Year 1	BSC100 Building Blocks for Science Students	3pts	BSC150 What is Science?	3pts
	ICT159 Foundations of Programming	3pts	ICT169 Foundations of Data Communications	3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites- MAS164)	3pts	ICT170 Foundations of Computer Systems	3pts
	ICT171 Introduction to Server Environments and Architectures	3pts	Option	3pts
		<u>12pts</u>		<u>12pts</u>
Year 2	BSC203 Introduction to ICT Research	3pts	<i>BRD2xx¹ University Breadth Unit</i>	3pts
	ICT284 Systems Analysis and Design	3pts	ICT285 Databases	3pts
	ICT287 Computer Security	3pts	Option	3pts
	ICT291 Network Design and Implementation	3pts	Option	3pts
		<u>12pts</u>		<u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT	3pts	ICT302 IT Professional Practice Project	3pts
	ICT380 Information Security Policy and Governance	3pts	ICT379 Security Architectures and Systems Administration	3pts
	ICT378 Computer Forensics	3pts	ICT369 Wireless and Interactive Networks	3pts
	ICT377 Network Security	3pts	ICT372 Advanced Network Design and Implementation	3pts
		<u>12pts</u>		<u>12pts</u>

¹ Any of the BRD2 coded units may be chosen.

Please see <http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Mobile and Web Application Development / Cyber Security and Forensics Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	ICT171 Introduction to Server Environments and Architectures 3pts	ICT167 Principles of Computer Science 3pts
	12pts	12pts
Year 2	BSC203 Introduction to ICT Research Methods 3pts	BRD2xx ¹ University Breadth Unit 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	ICT287 Computer Security 3pts	ICT286 Web and Mobile Computing 3pts
	Option 3pts	Option 3pts
	12pts	12pts
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT375 Advanced Web Programming 3pts	ICT365 Software Development Frameworks 3pts
	ICT378 Cyber Forensics 3pts	ICT376 Mobile Application Development 3pts
	ICT380 Information Security Policy and Governance 3pts	ICT379 Security Architectures and Systems Administration 3pts
	12pts	12pts

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

Please see <http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Mobile and Web Application Development / Games Software Design and Production Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics ((see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	Option 3pts	ICT167 Principles of Computer Science 3pts
	12pts	12pts
Year 2	BSC203 Introduction to ICT Research Methods 3pts	<i>BRD2xx¹ University Breadth Unit</i> 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	ICT288 Games Software Design 3pts	ICT286 Web and Mobile Computing 3pts
	Option 3pts	Option 3pts
	Recommended: ICT289 Computer Graphics Principles and Programming 3pts	
12pts	12pts	
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT375 Advanced Web Programming 3pts	ICT365 Software Development Frameworks 3pts
	ICT367 Games Software Production 3pts	ICT376 Mobile Application Development 3pts
	ICT396 User Interface Design 3pts	Option 3pts
	12pts	12pts

¹Any of the BRD2 coded units may be chosen.

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Course Plan (Sample Only)

B1317 BSc Business Information Systems/ Computer Science Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	ICT169 Foundations of Data Communications 3pts
	ICT159 Foundations of Programming 3pts	ICT170 Foundations of Computer Systems 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT158 Introduction to Information Systems 3pts
	BSC150 What is Science? 3pts	ICT167 Principles of Computer Science 3pts
	12pts	12pts
Year 2	BSC203 Introduction to ICT Research Methods 3pts	<i>BRD2xx¹ University Breadth Unit</i> 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	ICT283 Data Structures and Abstractions 3pts	ICT292 Information Systems Management 3pts
	Option 3pts	ICT319 Intelligent Systems 3pts
	12pts	12pts
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT394 Business Intelligence Application Development 3pts	ICT393 Advanced Business Analysis and Design 3pts
	ICT373 Software Architectures 3pts	ICT301 Enterprise Architectures 3pts
	Option 3pts	ICT374 Operating Systems and Systems Programming 3pts
	12pts	12pts

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Business Information Systems/ Cyber Security and Forensics

Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts ICT159 Foundations of Programming 3pts MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts ICT171 Introduction to Server Environments and Architectures 3pts <u>12pts</u>	BSC150 What is Science? 3pts ICT169 Foundations of Data Communications 3pts ICT170 Foundations of Computer Systems 3pts ICT158 Introduction to Information Systems 3pts <u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts ICT284 Systems Analysis and Design 3pts ICT287 Computer Security 3pts Option 3pts <u>12pts</u>	BRD2xx ¹ University Breadth Unit 3pts ICT285 Databases 3pts ICT292 Information Systems Management 3pts Option 3pts <u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts ICT394 Business Intelligence Application Development 3pts ICT378 Cyber Forensics 3pts ICT380 Information Security Policy and Governance 3pts <u>12pts</u>	ICT302 IT Professional Practice Project 3pts ICT393 Advanced Business Analysis and Design 3pts ICT301 Enterprise Architectures 3pts ICT379 Security Architectures and Systems Administration 3pts <u>12pts</u>

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Business Information Systems/ Games Software Design and Production Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts ICT159 Foundations of Programming 3pts MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts BSC150 What is Science? 3pts <u>12pts</u>	ICT169 Foundations of Data Communications 3pts ICT170 Foundations of Computer Systems 3pts ICT158 Introduction to Information Systems 3pts ICT167 Principles of Computer Science 3pts <u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts ICT284 Systems Analysis and Design 3pts ICT288 Games Software Design 3pts Option 3pts <u>12pts</u>	BRD2xx ¹ University Breadth Unit 3pts ICT285 Databases 3pts ICT292 Information Systems Management 3pts Option 3pts <u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts ICT394 Business Intelligence Application Development 3pts ICT367 Games Software Production 3pts ICT396 User Interface Design 3pts <u>12pts</u>	ICT302 IT Professional Practice Project 3pts ICT393 Advanced Business Analysis and Design 3pts ICT301 Enterprise Architectures 3pts ICT365 Software Development Frameworks 3pts <u>12pts</u>

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Business Information Systems/ Games Technology Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts ICT159 Foundations of Programming 3pts MAS162 Foundations of Discrete Mathematics (see unit pre-requisites MAS164) 3pts BSC150 What is Science? 3pts <u>12pts</u>	ICT169 Foundations of Data Communications 3pts ICT170 Foundations of Computer Systems 3pts ICT158 Introduction to Information Systems 3pts ICT167 Principles of Computer Science 3pts <u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts ICT284 Systems Analysis and Design 3pts ICT283 Data Structures and Abstractions 3pts ICT289 Computer Graphics Principles and Programming 3pts <u>12pts</u>	BRD2xx ¹ University Breadth Unit 3pts ICT285 Databases 3pts ICT292 Information Systems Management 3pts ICT290 Games Design and Programming 3pts <u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts ICT394 Business Intelligence Application Development 3pts ICT397 Advanced Games Design and Programming 3pts ICT371 Game Development 3pts <u>12pts</u>	ICT302 IT Professional Practice Project 3pts ICT393 Advanced Business Analysis and Design 3pts ICT301 Enterprise Architectures 3pts ICT398 Virtual Environments 3pts <u>12pts</u>

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Business Information Systems/ Internetworking and Network Security Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts	BSC150 What is Science? 3pts
	ICT159 Foundations of Programming 3pts	ICT169 Foundations of Data Communications 3pts
	MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts	ICT170 Foundations of Computer Systems 3pts
	ICT171 Introduction to Server Environments and Architectures 3pts	ICT158 Introduction to Information Systems 3pts
	12pts	12pts
Year 2	BSC203 Introduction to ICT Research Methods 3pts	<i>BRD2xx¹ University Breadth Unit*</i> 3pts
	ICT284 Systems Analysis and Design 3pts	ICT285 Databases 3pts
	ICT291 Network Design and Implementation 3pts	ICT292 Information Systems Management 3pts
	Option 3pts	ICT393 Advanced Business Analysis and Design 3pts
	12pts	12pts
Year 3	BSC301 Applied Research Skills in ICT 3pts	ICT302 IT Professional Practice Project 3pts
	ICT394 Business Intelligence Application Development 3pts	ICT301 Enterprise Architectures 3pts
	ICT377 Network Security 3pts	ICT369 Wireless and Interactive Networks 3pts
	Option 3pts	ICT372 Advanced Network Design and Implementation 3pts
	12pts	12pts

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Course Plan (Sample Only)

B1317 BSc Business Information Systems/ Mobile and Web Application Development Double Major

Semester 1 2019 entry

	Semester 1	Semester 2
Year 1	BSC100 Building Blocks for Science Students 3pts ICT159 Foundations of Programming 3pts MAS162 Foundations of Discrete Mathematics (see unit pre-requisites-MAS164) 3pts BSC150 What is Science? 3pts <u>12pts</u>	ICT169 Foundations of Data Communications 3pts ICT170 Foundations of Computer Systems 3pts ICT158 Introduction to Information Systems 3pts ICT167 Principles of Computer Science 3pts <u>12pts</u>
Year 2	BSC203 Introduction to ICT Research Methods 3pts ICT284 Systems Analysis and Design 3pts BRD2xx ¹ University Breadth Unit 3pts Option 3pts <u>12pts</u>	ICT285 Databases 3pts ICT292 Information Systems Management 3pts ICT393 Advanced Business Analysis and Design 3pts ICT286 Web and Mobile Computing 3pts <u>12pts</u>
Year 3	BSC301 Applied Research Skills in ICT 3pts ICT394 Business Intelligence Application Development 3pts ICT375 Advanced Web Programming 3pts Option 3pts <u>12pts</u>	ICT302 IT Professional Practice Project 3pts ICT301 Enterprise Architectures 3pts ICT365 Software Development Frameworks 3pts ICT376 Mobile Application Development 3pts <u>12pts</u>

¹Any of the BRD2 coded units may be chosen.

For Breadth Unit selection please see

<http://handbook.murdoch.edu.au/units/?year=2019&discip=University+Breadth&sort=UnitCd>

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Student Advisor

Your Student Advisor is the first point of contact for academic, personal and social support for undergraduate students. This support includes:

- Study skills
- Connecting Students to appropriate services
- Accessibility for immediate problem solving
- Enrolment/class sign up
- Communication – referring you to the right contact



Student Advisor supporting IT students:

Dianne Noonan

Working Days: Monday - Friday 8.30am – 4.30pm

D.Noonan@murdoch.edu.au

Phone 9360 6514

Building 245, Level 3, Room 2.058

Please feel welcome to just pop into Dianne's office for a chat or to ask questions.

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FREQUENTLY ASKED QUESTIONS

Who do I see about helping plan my course?

Academic Chairs are best placed to provide advice for course planning. Contact details for Academic Chairs are in the front of this booklet.

The Student Advisor is often the first point of call for course planning advice and can refer you to your Academic Chair, offer very basic course advice and provide you with a Course Planning Booklet.

How can I get help for Advanced Standing?

Advanced Standing is the recognition of prior learning as credit, exemptions and/or preclusions towards a Murdoch University course.

Assessments for Advanced Standing can only take place after full applications have been received with supporting documents and forms. Complete a Request for Advanced Standing Form(s) from the Useful Form [website](#) and also located at this link: <http://www.murdoch.edu.au/study/how-to-apply/credits-and-exemptions>

What is the '30 point rule'?

Course structures from 2018, allow you to complete a minimum 12 points at 100 level, but all courses (except pre-2014 joint degrees*) will only allow a maximum of 30 points at 100 level used to satisfy the point requirements to graduate. This is the 30 Point Rule.

In addition to the point requirements, you must complete (or be credited or be exempt from) all Core and Specified Elective units.

You may find that due to [advanced standing](#) or a [course transfer](#), your enrolment in 100 level units exceeds 30 points, which will result in your unit(s) having an **'Invalid'** status. If you need the additional 100 level core unit(s) to meet the Course Requirements, you must have the unit(s) validated. The rule will still stand and no more than 30 100 level points can be used to graduate.

To have the unit(s) validated, please go to MyAnswers > Ask a Question and submit a query confirming that you understand the 30 point rule and would like your unit(s) to be validated.

What's this Maths Pre-requisite All About?

All degrees will contain units with pre-requisites. It is important that you study and understand your degree so that you are aware of these dependencies. The first one that you may encounter is MAS162/MAS164.

In order to enrol in MAS162 Foundations of Discrete Mathematics, students must have completed the following: MAS164 Fundamentals of Mathematics/MAS182/MAS161 OR a final scaled score of **55%** or more in [ATAR Mathematics Applications](#) or [WACE Mathematics 2C/2D](#) OR a final scaled score of **50%** or more in [ATAR Mathematics Methods](#) or [WACE Mathematics 3A/3B](#) (or higher) OR equivalent.

If you are in doubt about your qualifications or background preparation, please contact the Unit Coordinator as soon as possible. Contact details can be found in the Unit Guide.

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FREQUENTLY ASKED QUESTIONS

Why when I enrol in a unit, does my unit show as "invalid"?

If your unit has an invalid status or has recently changed from enrolled to invalid you are not enrolled in the unit. To find out why your selection is Invalid, click on the 'Why is this Invalid?' button next to the unit selection in [MyInfo](#) > Enrol > Units (you may need to enable pop-ups to view). Common reasons are:

- You have not completed a [pre-requisite unit](#)
- You are trying to enrol in a Part II unit but have not completed your [Part I requirements](#)
- You are trying to enrol in a unit that will result in you exceeding the maximum [100](#) level points (30 Point Rule).
- You have Advanced Standing (Credits or Exemptions at 100 level) taking you over (30 points see above).
- You are not enrolled in the appropriate course or major for this unit

Where can I get help with enrolling or signing up for classes?

Contact the Student Advisor who can offer you help and provide you with step by step instructions and screen shots.

When I try to sign up for classes my classes clash. What do I do?

If you have a class clash or you discover that classes are full, contact the Unit Coordinator for assistance. He/she may be able to resolve this issue for you.

Where can I access help with my study?

The University has many support services that can assist you with your study. Contact the Student Advisor who can put you in touch with the right service or the right resource.

Can I withdraw or discontinue a unit?

You can quickly and easily discontinue a unit through [MyInfo](#)>Self Enrolment Steps>Units. For the discontinuation to be processed you need to ensure you click the 'Save Changes' button. You will receive an on-screen receipt confirming the discontinuation has been processed. Please go to <https://goto.murdoch.edu.au/MyInfo>

However, please note, so that you do not incur the full financial tuition fees for the unit, withdrawal must be made **BEFORE** the [Census Date](#) for the semester. Please check the actual [census and withdrawal dates](#) for the relevant teaching period. If in doubt, contact [The Student Centre](#).

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FREQUENTLY ASKED QUESTIONS

Whom do I contact for academic help?

Academic Chairs- Course Planning advice

Unit Coordinators - Most queries about unit content, assessment and organisation can be directed to the unit coordinator. Contact details can be found in relevant unit guides.

Tutors- Assignments, help with understanding content, basic content questions, etc.,- Tutors are your first port of call and are usually the staff members who know you best. They run your tutorials/ labs/workshops. They mark your assignments and help you to decipher the unit readings, lectures and assignments tasks.

Ask your Student Advisor about these Excellent Support Services

MentorMe program- small groups of peers from the same discipline assigned an experienced student Mentor who support students to get the most of out of their time at uni by helping students gain skills for uni success and meet new people. They will share study tips, and help you make connections.

PASS – Peer Assisted Study Sessions for unit specific support. Free weekly study sessions with trained leaders.

Maths Workshops- CUTL provides free Maths workshops where you can help one on one help for numeracy.

UniEdge Workshops- Uni Edge runs a number of workshops during the semester on study skills, well being, exam preparation, etc. See your Student Advisor for details.

LACE – LACE is an intercultural social group open to everyone in the Murdoch community. This group supports students to enrich their university experience by meeting new friends and building culturally diverse connections. Open to International and domestic students.

The IT Student HUB

Keep informed about internships/scholarships, events for IT students, and check out the student resources by going to the IT Student Hub at <https://moodleprod.murdoch.edu.au/course/view.php?id=9416>

My Notes:



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