Handbook
2020

Coursecode

B1317A

Murdoch University

Correct as at: 27 January 2020 at 10:51pm

Correct as at: 27 January 2020 at 10:51pm

Enquiries concerning its contents should be addressed to:

University Secretary
Murdoch University
South Street
Murdoch
Western Australia 6150

Telephone: (08) 9360 6000
Facsimile: (08) 9360 6847

http://www.murdoch.edu.au

TEQSA Number PRV12163; CRICOS Provider Code: 00125J

Cancellation of Courses, Majors, Minors and Units

The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University or in other unforeseen circumstances.

Alternative Formats

Handbook home page:
http://handbook.murdoch.edu.au

This publication can also be provided in alternative formats by contacting the Equity and Social Inclusion Office at Murdoch University
Telephone: (08) 9360 6084
Facsimile: (08) 9360 6502

equity@murdoch.edu.au

http://goto.murdoch.edu.au/EquitySocialInclusion

ISSN 0815-9068
Published by
University Secretary's Office
Murdoch University

Cancellation of Courses, Majors, Minors and Units

The University reserves the right to cancel, without notice, any course, major, minor or unit if the number of students enrolled falls below limits set by the University or in other unforeseen circumstances.

Group	Course	Offerings
Sports Science	Sport and Health Science (BSc)	• Murdoch campus (internal)

SPORTS SCIENCE

SPORT AND HEALTH SCIENCE (BSC)

Bachelor of Science (BSc) in Sport and Health Science

Admission Requirements (Onshore):
As per normal undergraduate admission requirements.

Employment Prospects:
The range of workplace settings include: University sport science labs; academies of sport; institutes of sport; professional and amateur sporting clubs; and fitness clubs.

Course Codes: B1317 B1317A

Availability:
• Murdoch campus (internal)

Sport, and in particular Exercise Science, is a growing discipline within Australia and worldwide. The Sport and Health Science major focuses on the sub-disciplines of Exercise Physiology and Sports Psychology. Students will develop knowledge and skills in both theoretical and practical settings that will enable them to prescribe exercise to healthy populations, including elite athletes, while understanding the psychological background to exercise and sport.

Special Requirements:
A Working with Children Check will be required for some practical placements.

Students who are completing Movement Science as a second major will complete EXS309 Exercise Science Practicum in place of the third year breadth unit.

Murdoch's Bachelor of Science is a flexible degree which gives you the opportunity to build deep understanding and practical experience as well as to supplement your studies by engaging with industry and the community on relevant problems. You can even undertake studies through another discipline to broaden your understanding of the way in which science operates in relation to social, business, health and policy environments.

Main Research Areas:
Sports Science, Exercise and Health Science, Biomechanics, Motor Control.

Duration: 3 years full-time or part-time equivalent

Psychology

Course Structure - 72 credit points

Part I - 24 credit points

Year 1 - 24 credit points

Transition Unit - 3 credit points

BSC100 Building Blocks for Science Students - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external

Breadth Unit for Degree - 3 credit points

MSP100 Career Learning: Managing Your Career - 3 points
MURDOCH: S1-external, S2-external

Core Units - 9 credit points

EXS102 Human Physiology - 3 points
MURDOCH: S2-internal

EXS124 Introduction to Sports Science - 3 points
MURDOCH: S1-internal

PSY172 Introduction to Psychological Health and Wellbeing - 3 points
MURDOCH: S2-internal

General Electives - 9 credit points

Select from any 100-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using General Elective points to meet the requirements of a second major or minor. Any recommended double majors and minors will be included in the major's description.

Part II - 48 credit points

University-Wide Breadth Units - 6 credit points

Select from the prescribed list of University-Wide Breadth Units. A unit cannot be used to satisfy both this Breadth Unit requirement and the requirements of a major or minor. If taken at 100 level the unit(s) will be attributed to Part I. Note that no more than 30 credit points at Part I may be credited towards course completion requirements.

Year 2 - 21 credit points

Research Skills Unit - 3 credit points

The Research Skills unit to be taken will depend on the student's Primary Major enrolment. Select from the following.

For Primary Major in Cognitive Neuroscience and Health Psychology

BSC201 Psychology: Measurement, Design and Analysis - 3 points
MURDOCH: S1-internal

For Primary Majors in the Health Sciences, as listed

Primary Major in Chiropractic Science, Exercise Physiology, Movement Science, or Sport and Health Science:

BSC206 Introduction to Research Methodology and Evidence Based Practice - 3 points
MURDOCH: S2-internal

For All Other Primary Majors excluding Information Technology

Select from the Research Skills Unit List recommended for each major. A unit cannot be used to satisfy both this Research Skills Unit requirement and the requirements of a major or minor. If taken at 100 level the unit(s) will be attributed to Part I. Note that no more than 30 credit points at Part I may be credited towards course completion requirements.

Core Units - 9 credit points

EXS201 Sport and Exercise Psychology - 3 points
MURDOCH: S1-internal

EXS202 Exercise Physiology I - 3 points
MURDOCH: S1-internal

EXS203 Health, Fitness and Performance Assessment - 3 points
MURDOCH: S1-internal

General Electives - 9 credit points

Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using General Elective points to meet the requirements of a second major or minor. Any recommended double majors and minors will be included in the major's description.

Year 3 - 21 credit points

Research Skills Unit - 3 credit points

The Research Skills unit to be taken will depend on the student's Primary Major enrolment. Select from the following.

For Primary Major in Cognitive Neuroscience and Health Psychology

BSC302 Advanced Quantitative Research Methods - 3 points
MURDOCH: S2-internal

For Primary Majors in the Health Sciences, as listed

Primary major in Chiropractic Science, Movement Science, Sport and Health Science:

BSC306 Research and Evidence Based Practice - 3 points
MURDOCH: S1-internal

For All Other Primary Majors excluding Information Technology

Select from the Research Skills Unit List recommended for each major. A unit cannot be used to satisfy both this Research Skills Unit requirement and the requirements of a major or minor. If taken at 100 level the unit(s) will be attributed to Part I. Note that no more than 30 credit points at Part I may be credited towards course completion requirements.

Core Units - 9 credit points

EXS302 Exercise Physiology II - 3 points
MURDOCH: S2-internal

EXS301 Advanced Sport and Exercise Psychology - 3 points
MURDOCH: S2-internal

EXS303 Exercise, Programming and Prescription - 3 points
MURDOCH: S1-internal

Students who wish to register with Exercise and Sport Science Australia or enter into the BSc (Exercise Physiology) to become an Accredited Exercise Physiologist will be required to take a second major in Movement Science, and enrol in EXS309 Exercise Science Practicum - 3 points in lieu of the 3rd Year University Wide Breadth unit.

General Electives - 9 credit points

Select from any 200- to 400-level units offered by the University, subject to individual unit prerequisites. Students are advised to consider using General Elective points to meet the requirements of a second major or minor. Any recommended double majors and minors will be included in the major's description.

Research Skills Unit List

Animal Health Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

COM103 Foundations of Communication - 3 points
MURDOCH: S2-internal, S2-external

BMS317 Human Pharmacology - 3 points
MURDOCH: S1-internal

Animal Science Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

COM103 Foundations of Communication - 3 points
MURDOCH: S2-internal, S2-external

Crop and Pasture Science

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BIO257 Australian Biodiversity - 3 points
MURDOCH: S2-internal

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

Biological Sciences Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

BIO377 Marine Ecology - 3 points

MURDOCH: S1-internal

BIO388 Forensic Science and Miscarriages of Justice - 3 points
MURDOCH: W-internal

CHE207 Chemical Analysis - 3 points
MURDOCH: S1-internal, S1-external

BIO393 Tropical Marine Biology - 3 points
MURDOCH: W-internal (quota of 40 places)

Conservation and Wildlife Biology Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

BIO377 Marine Ecology - 3 points
MURDOCH: S1-internal

ENV328 Environmental Policy and Law - 3 points
MURDOCH: S1-internal, S1-external

SUS305 Economics of Sustainability - 3 points
MURDOCH: W-internal, W-external

COD302 Creative Ways to Work with Community - 3 points
MURDOCH: S2-internal, S2-external

BIO247 Biochemistry - 3 points
MURDOCH: S2-internal

ENV332 Managing Wetlands and Water - 3 points
MURDOCH: S2-internal, S2-external

BIO393 Tropical Marine Biology - 3 points
MURDOCH: W-internal (quota of 40 places)

Environmental Management and Sustainability Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO393 Tropical Marine Biology - 3 points
MURDOCH: W-internal (quota of 40 places)

MAS182 Applied Mathematics - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external

MAS353 Statistical Design and Data Analysis - 3 points
MURDOCH: S2-internal, S2-external

ENV332 Managing Wetlands and Water - 3 points
MURDOCH: S2-internal, S2-external

ENG341 Water Conservation and Auditing - 3 points
MURDOCH: S1-internal, S1-external

COM103 Foundations of Communication - 3 points
MURDOCH: S2-internal, S2-external

BIO257 Australian Biodiversity - 3 points
MURDOCH: S2-internal

SUS305 Economics of Sustainability - 3 points
MURDOCH: W-internal, W-external

COD302 Creative Ways to Work with Community - 3 points
MURDOCH: S2-internal, S2-external

ENV241 Ecology - 3 points
MURDOCH: S2-internal, S2-external

Environmental Science Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO393 Tropical Marine Biology - 3 points
MURDOCH: W-internal (quota of 40 places)

ENV334 Environmental Restoration - 3 points
MURDOCH: S1-internal (quota of 60 places), S1-external (quota of 60 places)

ENG341 Water Conservation and Auditing - 3 points
MURDOCH: S1-internal, S1-external

COM103 Foundations of Communication - 3 points
MURDOCH: S2-internal, S2-external

BIO257 Australian Biodiversity - 3 points
MURDOCH: S2-internal

MAS182 Applied Mathematics - 3 points
MURDOCH: S1-internal, S1-external, S2-internal, S2-external

Marine Science Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

ENV241 Ecology - 3 points

MURDOCH: S2-internal, S2-external

BIO393 Tropical Marine Biology - 3 points
MURDOCH: W-internal (quota of 40 places)

Biomedical Science Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

BIO367 Forensic Toxicology - 3 points
MURDOCH: S2-internal

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BMS218 Haematology - 3 points
MURDOCH: S2-internal (quota of 80 places)

BMS323 Clinical Biochemistry I - 3 points
MURDOCH: S2-internal (quota of 25 places)

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

BMS317 Human Pharmacology - 3 points
MURDOCH: S1-internal

Clinical Laboratory Science Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

BIO367 Forensic Toxicology - 3 points
MURDOCH: S2-internal

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BIO388 Forensic Science and Miscarriages of Justice - 3 points
MURDOCH: W-internal

BMS317 Human Pharmacology - 3 points
MURDOCH: S1-internal

Forensic Biology and Toxicology Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO388 Forensic Science and Miscarriages of Justice - 3 points
MURDOCH: W-internal

BIO394 Genetic Engineering - 3 points
MURDOCH: S1-internal

BMS218 Haematology - 3 points
MURDOCH: S2-internal (quota of 80 places)

BMS323 Clinical Biochemistry I - 3 points
MURDOCH: S2-internal (quota of 25 places)

BMS317 Human Pharmacology - 3 points
MURDOCH: S1-internal

Genetics and Molecular Biology Major

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO388 Forensic Science and Miscarriages of Justice - 3 points
MURDOCH: W-internal

BMS211 Medical Immunology and Molecular Genetics - 3 points
MURDOCH: S2-internal

BMS327 Diagnostic Genomics - 3 points
MURDOCH: S1-internal (quota of 30 places)

BIO367 Forensic Toxicology - 3 points
MURDOCH: S2-internal

BIO359 Forensic DNA Analysis - 3 points
MURDOCH: S1-internal

BMS218 Haematology - 3 points
MURDOCH: S2-internal (quota of 80 places)

BMS323 Clinical Biochemistry I - 3 points
MURDOCH: S2-internal (quota of 25 places)

BMS317 Human Pharmacology - 3 points
MURDOCH: S1-internal

Chemistry Major

MAS221 Mathematical Modelling - 3 points
MURDOCH: S2-internal, S2-external

CHE309 Advanced Projects in Chemistry and Mineral Science - 3 points
MURDOCH: S1-internal, S2-internal, SUM-internal

BSC304 Innovation and Ethics in Science - 3 points
MURDOCH: S1-internal, S1-external

Physics and Nanotechnology Major

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS222 Probability and Statistical Inference - 3 points
MURDOCH: S1-internal, S1-external

ICT289 Computer Graphics Principles and Programming - 3 points
MURDOCH: S1-internal, S1-external

ICT283 Data Structures and Abstractions - 3 points
MURDOCH: S1-internal, S1-external

ENG297 Circuits and Systems II - 3 points
MURDOCH: S2-internal

ENG207 Principles of Electronic Instrumentation - 3 points
MURDOCH: S2-internal, W-internal

ICT319 Intelligent Systems - 3 points
MURDOCH: S2-internal, S2-external

MAS221 Mathematical Modelling - 3 points

MURDOCH: S2-internal, S2-external

MAS351 Environmental and Biological Modelling - 3 points
MURDOCH: S1-internal, S1-external

MAS354 Modelling and Simulation - 3 points
MURDOCH: S2-internal, S2-external

BSC304 Innovation and Ethics in Science - 3 points
MURDOCH: S1-internal, S1-external

Mathematics and Statistics Major

MAS220 Mathematical Methods - 3 points
MURDOCH: S1-internal, S1-external

MAS222 Probability and Statistical Inference - 3 points
MURDOCH: S1-internal, S1-external

ICT283 Data Structures and Abstractions - 3 points
MURDOCH: S1-internal, S1-external

MAS351 Environmental and Biological Modelling - 3 points
MURDOCH: S1-internal, S1-external

MAS352 Time Series Analysis - 3 points
MURDOCH: S1-internal, S1-external

ICT373 Software Architectures - 3 points
MURDOCH: S1-internal, S1-external

ICT374 Operating Systems and Systems Programming - 3 points
MURDOCH: S2-internal, S2-external

Engineering Technology Major

MAS221 Mathematical Modelling - 3 points
MURDOCH: S2-internal, S2-external

The following unit is no longer available - contact the Academic Chair for advice:

BEN200 Scientific Method in Engineering - 3 points

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

BEN300 Innovation and Ethics in Engineering - 3 points
MURDOCH: S1-internal

BSC304 Innovation and Ethics in Science - 3 points
MURDOCH: S1-internal, S1-external

MAS351 Environmental and Biological Modelling - 3 points
MURDOCH: S1-internal, S1-external

MAS354 Modelling and Simulation - 3 points
MURDOCH: S2-internal, S2-external

ENG336 Engineering Finance, Management and Law - 3 points
MURDOCH: S2-internal

Mineral Science Major

ENG255 Chemical Process Kinetics - 3 points
MURDOCH: S2-internal, S2-external

MAS221 Mathematical Modelling - 3 points
MURDOCH: S2-internal, S2-external

The following unit is no longer available - contact the Academic Chair for advice:

BEN200 Scientific Method in Engineering - 3 points

ENG299 Control Systems and Process Dynamics - 3 points
MURDOCH: S1-internal

BEN300 Innovation and Ethics in Engineering - 3 points
MURDOCH: S1-internal

MAS351 Environmental and Biological Modelling - 3 points
MURDOCH: S1-internal, S1-external

MAS354 Modelling and Simulation - 3 points
MURDOCH: S2-internal, S2-external

ENG336 Engineering Finance, Management and Law - 3 points
MURDOCH: S2-internal

Marine Biology Major

BSC200 Research in the Physical and Life Sciences - 3 points
Not available this year

ENV303 GIS for Environmental Management and Planning - 3 points
MURDOCH: S2-internal (quota of 70 places), S2-external (quota of 20 places)

BIO246 Microbiology - 3 points
MURDOCH: S1-internal

BMS316 Parasitology: People, Pets and Wildlife - 3 points
MURDOCH: S2-internal

MAS223 Applied Statistics - 3 points
MURDOCH: S2-internal, S2-external

MAS224 Biostatistical Methods - 3 points
MURDOCH: S1-internal, S1-external

BIO282 Molecular Biology - 3 points
MURDOCH: S1-internal

PREREQUISITES

Advanced Projects in Chemistry and Mineral Science (CHE309)
Students need to have completed a minimum of 24 points at 200 and 300 level.

Advanced Quantitative Research Methods (BSC302)
BSC201 Psychology: Measurement, Design and Analysis OR PSY212: Psychology: Measurement, Design and Analysis.

Advanced Sport and Exercise Psychology (EXS301)
EXS201 Sports Psychology/Sport and Exercise Psychology OR PSY141 Introduction to Psychological Science & PSY173 Introduction to Psychological Research Methods

Applied Mathematics (MAS182)
MAS164 Fundamentals of Mathematics OR at least a pass in the Year 11 course Introduction to Calculus together with a final scaled score of 55% or more in TEE Applicable Mathematics OR a final scaled score of 55% or higher in ATAR Mathematics Methods (WACE Mathematics 3C/3D).

Applied Statistics (MAS223)
MAS183 Statistical Data Analysis.

Australian Biodiversity (BIO257)
Nil.

Biochemistry (BIO247)
BIO152 Cell Biology/Foundations of Cell and Molecular Biology/Foundations of Cell Biology

Biostatistical Methods (MAS224)
MAS180 Introduction to Statistics or MAS183 Statistical Data Analysis.

Building Blocks for Science Students (BSC100)
Enrolment in a Bachelor of Science, Bachelor of Animal Science, Bachelor of Environmental Management, Bachelor of Environmental Science, Bachelor of Extractive Metallurgy, Bachelor of Forensics, Bachelor of Marine Science, Bachelor of Sports Science, Bachelor of Technology in Engineering Technology, Bachelor of Sustainability, Bachelor Of Sport And Exercise Science, Bachelor of Sport and Exercise Science + Psychology (BSportExSc, BSc) or Bachelor Of Sport And Exercise Science/Graduate Diploma In Clinical Exercise Physiology, or B1355 Bachelor of Laws / Bachelor

of Science (Psychology), or B1338 BA Psychology, B1388 BA Psychology, or B1347 Bachelor of Criminology + BA Psychology, or B1354 Bachelor of Law + Bachelor of Arts Psychology, or Bachelor of Science (Agricultural Sciences), or Bachelor of Agricultural Science + Commerce, or Bachelor of Laboratory Medicine, or Bachelor of Science (Medical, Molecular and Forensic Sciences), or Bachelor of Food Science and Nutrition.

Career Learning: Managing Your Career (MSP100)
Nil.

Chemical Analysis (CHE207)
CHE144 Foundations of Chemistry/PEC144 Chemical Principles.

Chemical Process Kinetics (ENG255)
All Part I units in the Chemical and Metallurgical Engineering Honours major.

Circuits and Systems II (ENG297)
ENG225 Circuits and Systems I AND MAS182 Applied Mathematics or equivalent.

Clinical Biochemistry I (BMS323)
BIO247 Biochemistry

Computer Graphics Principles and Programming (ICT289)
ICT167 Principles of Computer Science OR ICT104 Principles of Computer Science. Students are encouraged to also complete MAS162 Foundations of Discrete Mathematics AND ICT170 Foundations of Computer Systems.

Control Systems and Process Dynamics (ENG299)
PEC152/PEN152 Principles of Physics; MAS161 Calculus and Matrix Algebra or co-requisite MAS208 Mathematical Modelling; ENG109 Computing for Scientists and Engineers; ENG192 Energy, Mass and Flow or CHE144 Foundations of Chemistry.

Creative Ways to Work with Community (COD302)
Nil.

Data Structures and Abstractions (ICT283)
ICT167/ICT104 Principles of Computer Science. Students are encouraged to also complete MAS162 Foundations of Discrete Mathematics AND ICT170 Foundations of Computer Systems.

Diagnostic Genomics (BMS327)
BIO282 Molecular Biology

Ecology (ENV241)
BIO103 Environmental Biology/Introduction to Environmental Biology or BIO180 Introduction to Marine Biology.

Economics of Sustainability (SUS305)
Nil.

Engineering Finance, Management and Law (ENG336)
Nil.

Environmental Policy and Law (ENV328)
Nil.

Environmental Restoration (ENV334)
BIO103 Environmental Biology/Introduction to Environmental Biology. Students are strongly recommended to complete ENV268/ENV241 Ecology.

Environmental and Biological Modelling (MAS351)
MAS221/MAS208 Mathematical Modelling OR MAS220/MAS261 Mathematical Methods.

Exercise Physiology I (EXS202)
BMS101 Introduction to the Human Body or EXS102 Human Physiology.

Exercise Physiology II (EXS302)
CHI226/EXS226/EXS202 Exercise Physiology I.

Exercise Science Practicum (EXS309)
EXS103 Strength and Resistance Training OR EXS223 Strength and Resistance Training;
and
EXS203 Health, Fitness and Performance Assessment.

Students must be enrolled in B1317 double major (Sport and Health Science/ Movement Science) OR B1336 Bachelor of Science/Graduate Diploma in Clinical Exercise Physiology OR B1348 Bachelor of Sport and Exercise Science OR B1349 Bachelor of Sport and Exercise Science + Graduate Diploma in Clinical Exercise Physiology OR B1352 Bachelor of Sport and Exercise Science + Bachelor of Science (Psychology).

Exercise, Programming and Prescription (EXS303)
EXS203 Health, Fitness and Performance Assessment or CHI208 Health, Fitness and Performance Assessment;
EXS202 Exercise Physiology I or CHI226 Exercise Physiology I;
EXS103 Strength and Resistance Training or EXS225 Strength and Resistance Training or CHI225 Principles of Strength and Conditioning.

Forensic DNA Analysis (BIO359)
BIO202 Molecular Biology I or BIO212 Genetic Engineering or BIO282 Molecular Biology

Forensic Science and Miscarriages of Justice (BIO388)
PEC103/CHE103 Introduction to Forensic Science OR CRM100 Introduction to Criminology OR permission of the Unit Co-ordinator.

Forensic Toxicology (BIO367)
Successful completion of, or concurrent enrolment in, either BIO247/BIO270 Biochemistry/Biochemistry I or BMS261/VET272 Human and Comparative Biochemistry/Comparative Mammalian Biochemistry or CHE207 Chemical Analysis..

Foundations of Communication (COM103)
Nil.

GIS for Environmental Management and Planning (ENV303)
Completion of 24 points or enrolment in an appropriate graduate qualification.

Genetic Engineering (BIO394)
BIO282 Molecular Biology

Haematology (BMS218)
BIO152 Cell Biology/Foundations of Cell and Molecular Biology/Foundations of Cell Biology.

Health, Fitness and Performance Assessment (EXS203)
EXS124 Introduction to Sports Science.

Human Pharmacology (BMS317)
Essential: BIO247 Biochemistry or BMS206 Biomedical Physiology OR VET272 Comparative Mammalian Biochemistry.
Recommended: BRD202 Drugs in Society

Human Physiology (EXS102)
Nil.

Innovation and Ethics in Engineering (BEN300)
BEN200 Engineering Research Skills; MAS261/MAS220 Mathematical Methods OR MAS208/MAS221 Mathematical Modelling.

Innovation and Ethics in Science (BSC304)
Completion of one 200-level research skills unit recommended for your major.

Intelligent Systems (ICT319)
ICT167 Principles of Computer Science OR ICT104 Principles of Computer Science.

Introduction to Psychological Health and Wellbeing (PSY172)
Nil.

Introduction to Research Methodology and Evidence Based Practice (BSC206)
100-level Transition Unit.

Introduction to Sports Science (EXS124)
Nil.

Managing Wetlands and Water (ENV332)
ENV241/ENV268 Ecology

Marine Ecology (BIO377)
BIO261/BIO244 Animal Diversity/Animal Speciation, Radiation, Evolution, or BIO287 Plant Diversity (Marine Science) / BIO254 Marine Botany or BIO265/BIO245 Plant Diversity/Plant Evolution, Radiation and Adaptation, or ENV268/ENV241 Ecology.

Mathematical Methods (MAS220)
MAS161 Calculus and Matrix Algebra OR MAS208/MAS221 Mathematical Modelling OR equivalent.

Mathematical Modelling (MAS221)
MAS182 Applied Mathematics or MAS161 Calculus and Matrix Algebra or equivalent.

Medical Immunology and Molecular Genetics (BMS211)
BIO152 Cell Biology/ Foundations of Cell and Molecular Biology.

Microbiology (BIO246)
BIO152 Cell Biology/Foundations of Cell and Molecular Biology/Foundations of Cell Biology

Modelling and Simulation (MAS354)
MAS161 Calculus and Matrix Algebra OR MAS221/MAS208 Mathematical Modelling OR both MAS182 Applied Mathematics AND MAS167 Computational Mathematics/MAS162 Foundations of Discrete Mathematics

Molecular Biology (BIO282)
BIO152 Cell Biology/Foundations of Cell and Molecular Biology/Foundations of Cell Biology

Operating Systems and Systems Programming (ICT374)
ICT283/ICT209 Data Structures and Abstractions.

Parasitology: People, Pets and Wildlife (BMS316)
BIO152 Cell Biology/Foundations of Cell and Molecular Biology/Foundations of Cell Biology

Principles of Electronic Instrumentation (ENG207)
ENG225 Circuits and Systems I and MAS182 Applied Mathematics.

Probability and Statistical Inference (MAS222)
MAS180 Introduction to Statistics OR MAS183 Statistical Data Analysis OR MAS223 Applied Statistics OR MAS224/MAS230 Biostatistical Methods OR MAS284 Applied Statistics and Process Management. In addition, students must have a calculus background equivalent to at least MAS182 Applied Mathematics.

Psychology: Measurement, Design and Analysis (BSC201)
PSY173 Introduction to Psychological Research Methods

Research and Evidence Based Practice (BSC306)
Completion of BSC206 Introduction to Research Methodology and Evidence Based Practice or special permission of Unit Coordinator.

Research in the Physical and Life Sciences (BSC200)
BSC100 Building Blocks for Science Students; OR enrolment in B1329 Bachelor of Education/Bachelor of Science and BED100 Ideas in Education.

Software Architectures (ICT373)
ICT104 Principles of Computer Science OR ICT167 Principles of Computer Science; ICT231 Systems Analysis and Design OR ICT284 Systems Analysis and Design.

Sport and Exercise Psychology (EXS201)
Nil.

Statistical Design and Data Analysis (MAS353)
MAS222/MAS278 Probability and Statistical Inference OR MAS223 Applied Statistics OR MAS224/MAS230 Biostatistical Methods OR MAS284 Applied Statistics and Process Management.

Time Series Analysis (MAS352)
MAS222/MAS278 Probability and Statistical Inference OR MAS223 Applied Statistics OR MAS224/MAS230 Biostatistical Methods OR MAS284 Applied Statistics and Process Management or enrolment in a postgraduate IT course. In addition students must have a calculus background equivalent to at least either MAS161 Calculus and Matrix Algebra OR MAS221/MAS208 Mathematical Modelling.

Tropical Marine Biology (BIO393)
BIO261/BIO244 Animal Diversity/Animal Speciation, Radiation, Evolution OR BIO265/BIO245 Plant Diversity/Plant Evolution, Radiation and Adaptation OR BIO287/BIO254 Plant Diversity (Marine Science) /Marine Botany OR ENV268/ENV241 Ecology OR permission of the Unit Coordinator.

Water Conservation and Auditing (ENG341)
Nil.

Personal Study Plan

Unit Sets:

Year	Semester 1	Semester 2
1		
2		
3		
4		