

Macquarie School of Education Faculty of Arts

2024
Secondary Teacher Education
Undergraduate Student Guide

Bachelor of Science and Bachelor of Education (Secondary)

Students commencing in 2024 are advised to retain the 2024 Student Guide and to refer to it in each subsequent year of study

Table of Contents

Important Links	1
Macquarie University Handbook	1
NSW Education Standards Authority (NESA)	1
Australian Institute for Teaching and Learning Leadership (AITSL)	
EDSTCOMM Macquarie School of Education Communications	
Macquarie School of Education	
Our people	1
Professional Experience	
Welcome from the Director	
HOW TO USE THIS GUIDE	
Course Guidance	
Credit Overload	3
SECTION 1Teacher Education at Macquarie	4
1.1The 5Rs Framework – attributes and capabilities for success	4
1.2NESA requirements: Academic standards	
1.2.1 NESA minimum standards	
1.2.3 The Teaching Performance Assessment (TPA)	
1.3Workload and Planning	5
1.4Undergraduate Programs of Study	5
1.4.1 Subject content requirements	6
SECTION 2Bachelor of Science and Bachelor of Education (Secondary)	
2.1First Teaching Subject	7
2.2Additional Science Subject	9
2.3 Bachelor of Science and Bachelor of Education (Secondary) – Content requirements suggested patterns of study	
2.4Major in Biology	
2.4.1 Suggested Pattern of Study – Major in Biology with a minor in Chemistry	
2.4.2 Suggested Pattern of Study – Major in Biology with a minor in Earth and Environmental Sciences 2.4.3 Suggested Pattern of Study – Major in Biology with a minor in Mathematics	
2.5Major in Human Biology	14
2.5.1 Suggested Pattern of Study – Major in Human Biology with a minor in Chemistry	14
2.5.2Suggested Pattern of Study – Major in Human Biology with a minor in Earth and Environmental S	
2.5.3 Suggested Pattern of Study – Major in Human Biology with minor in Mathematics	
2.6Major in Chemistry	
2.6.1 Suggested Pattern of Study – Major in Chemistry with a minor in Biology	
2.6.3 Suggested Pattern of Study – Major in Chemistry with a minor in Mathematics	
2.7Major in Earth and Environmental Sciences (EES)	20
2.7.1 Suggested Pattern of Study – major in EES minor in Biology	
2.8Major in Mathematics	
2.8.1 Prerequisites for first year units - Major in Mathematics; Minor in Statistical Modelling; Minor in F	THYSICS 21

2.8.2 Suggested Pattern of Study – Major in Mathematics with a minor in Statistical Modelling	
2.8.3 Suggested Pattern of Study - Major in Mathematics with a minor in Physics	. 23
2.8.4 Suggested Pattern of Study - Major in Mathematics with a minor in Biology	. 24
2.8.5 Suggested Pattern of Study - Major in Mathematics with a minor in Human Biology	. 25
2.8.6 Suggested Pattern of Study – Major in Mathematics with a minor in Chemistry	. 26
2.9Major in Physics	. 27
2.9.1 Prerequisites for first year Physics and Mathematics units	. 27
2.9.2 Suggested Pattern of Study – Major in Physics with a minor in Mathematics	. 28
2.10Major in Astronomy and Astrophysics	. 29
2.10.1Prerequisites for first year Physics and Mathematics units	. 29
2.10.2Suggested Pattern of Study - Major in Astronomy and Astrophysics with a minor in Mathematics	. 30
Section 3Professional Experience Units	31
Plan your own course worksheet	32

Important Links

Macquarie University Handbook

NSW Education Standards Authority (NESA)

Australian Institute for Teaching and Learning Leadership (AITSL)

EDSTCOMM Macquarie School of Education Communications

Macquarie School of Education

Our people

Professional Experience

Welcome from the Director

Congratulations on considering a career in education! As a teacher, you have the unique opportunity to nurture, inspire and influence students to be curious, resilient and brave in their learning. Our Teacher Education program includes discipline studies in Education, units covering subject content requirements for secondary teaching, curriculum studies, and a professional experience component. The sequence of units that you will study has been carefully designed to provide you with an excellent preparation for the secondary classroom. From time to time, there are also a variety of other activities on offer that will allow you to enrich and broaden your experience in teacher education.

A particular feature of the Macquarie program is the focus on integrating theory and practice throughout your academic studies and the concurrent School Experience Program. These activities will afford you an excellent opportunity to develop a reflective stance on your classroom practice so that it is fully informed by the latest developments in educational theory and research-based evidence.

As you progress through your studies, I encourage you to view yourself not simply as a university student, but as a Teacher Education Student who is preparing to join this challenging and rewarding profession. So, take every opportunity to fully engage in your academic work and make the most of all the opportunities presented to you during your school placements.

Secondary teaching is a rewarding career which lets you use your knowledge and passion for specific subjects to inspire and enrich the lives of others. I wish you everything of the best as you embark on this exciting professional and personal journey!

Director, Secondary Teacher Education Program

HOW TO USE THIS GUIDE

The information contained in this guide is for students entering the Bachelor of Science and Bachelor of Education (Secondary) in 2024.

Read this *Guide* in conjunction with the current Handbook to be fully aware of the relevant Bachelor Degree Rules and about your course and units.

In the following sections, patterns are provided to show the units which students *must complete* to satisfy the Bachelor degree and Bachelor of Education requirements. There are also units that students must take in order to satisfy prerequisites or corequisites for required units. This information can also be found in the Handbook.

It is important to refer to information in both the Handbook and this Student Guide when planning their studies.

Information in this guide is accurate at the time of publication.

Course Guidance

While care is always taken in the provision of academic advice, it is ultimately the student's responsibility to see that their program satisfies both the Bachelor Degree Rules *and* the NESA requirements.

Students are expected to have consulted this Student Guide and the Handbook before seeking advice.

Full information regarding academic advice and course guidance is available here: https://students.mq.edu.au/support/study/course-guidance

Students should submit their requests via AskMQ.

IMPORTANT NOTE: Students are advised to familiarise themselves with the NESA requirements for future teachers. It is the student's ultimate responsibility to understand and meet these requirements.

Credit Overload

If you wish to enrol in more than the standard number of credit points (credit overload) for a study period, you need academic approval. You must submit a Credit Overload form which will be forwarded to the Macquarie School of Education for consideration.

Please note that approval is not automatic and will depend upon your academic progress and reasons for the excess load.

SECTION 1

Teacher Education at Macquarie

1.1 The 5Rs Framework – attributes and capabilities for success

Teaching is a complex pursuit with competing demands, increasingly diverse student groups, high accountability, as well as new requirements and evidence being adopted regularly. Therefore, success in the teaching profession requires important attributes and capabilities.

At Macquarie University we aim to graduate teachers who not only have relevant discipline knowledge and teaching know-how, but who also understand and strive for those capabilities that will make teaching a sustaining career for years to come. Embedded in all our teaching courses is the Macquarie's **5R's framework** which helps develop our Teacher Education Students to be:

Resilient

Reflexive in their teaching practice

Responsive to children, colleagues, parents, professionals and communities

Ready to learn, and

Research engaged

We believe that our 5Rs framework, when consciously adopted and continuously developed, leads to high quality outcomes for both teachers and students.

We make a conscious effort to equip you, our Teacher Education Students, with the tools you need to thrive so you can inspire our great minds of tomorrow.

1.2 NESA requirements: Academic standards

1.2.1 NESA minimum standards

All courses for becoming a teacher in New South Wales are accredited with NESA, the NSW Education Standards Authority. NESA has set minimum academic standards for people studying to be teachers. The standards are:

- a minimum of three Band 5 HSC results, including one in English; or
- an approved comparable measure, which at Macquarie University is to pass a full year of study.

Students are able to start a teaching course at Macquarie University even if they do not meet the "three Band 5 HSC results" minimum, but they then need to pass a full year of university (80 credit points) to continue into their 'how to teach' studies.

In practical terms this means that at Macquarie University, teacher education students study aspects of the sociology, history and philosophy of education (EDST1000) and educational psychology about how people learn (EDST1010) in Year 1 of their course. Those units of study are important preparation for becoming a teacher. Students following a full-time pattern of study also complete other Year 1 studies (six other units) according to their course requirements.

Units of study about curriculum content and how to teach it (pedagogy) are then offered in our MQU undergraduate teacher education courses from Year 2 onwards. The Year 2 unit of study in the secondary teaching courses is **EDST2000**. **This unit of study has strict pre-requisites** because of the NESA requirements. To enrol in this unit of study, **students expecting to complete their studies in four years need to have 80 credit points by the end of Year 1**. **Some students may be eligible for a special approval waiver** if they do not have 80 credit points.

The 80 credit point pre-requisite for EDST2000 can only be waived if a student meets the other NESA requirements: a minimum of three Band 5s in the HSC, including English. A formal special approval application on the basis of HSC results would need to be submitted *after* your Year 1 Session 2 results are released, and not before. Applications will be subject to special approval review.

Students who are *not* eligible for a waiver to take EDST2000 in Session 1 of Year 2 would have to take those units in Session 1 of Year 3 of their course. Students should plan their studies carefully for a timely completion of their course given the circumstances, for example, they may need to take extra units in the other part of their double degree in Year 2 Session 1, if possible, to make room for EDST2000 in Year 3 Session 1. Students in this situation may apply for Course Guidance if they need help to plan their studies.

1.2.2 EDST2999 - Literacy and Numeracy Test for Initial Teacher Education (LANTITE)

In order to be accredited as a teacher in Australian schools, Teacher Education Students are required to undertake a *Literacy and Numeracy Test for Initial Teacher Education* (the test). In New South Wales, Teacher Education Students must meet the standard of the LANTITE test prior to commencing their final professional experience placement.

At Macquarie we require our Teacher Education Students to have sat both LANTITE tests and to have their results indicating they successfully met the standard in both literacy and numeracy *before being eligible to enrol in EDST3010*. This means **completing both tests no later than the end of the second year** of your course. We recommend undertaking these tests early in your candidature, preferably by the end of the first year of your studies.

The LANTITE test is coordinated by Australian Council for Educational Research (ACER) (see link below). To record your LANTITE results at Macquarie University you need to enrol in the unit EDST2999 LANTITE. This is a 0 credit point unit with no associated coursework. EDST2999 is available to enrol in for Session 1 or Session 3. See the course guidance plans below, which indicate when to enrol into this unit. All information regarding LANTITE is available on EDSTCOMM (under 'Full year' in iLearn).

Information about the test and how to register is available on the ACER website.

1.2.3 The Teaching Performance Assessment (TPA)

To be accredited as a teacher in Australian schools, TES are required to undertake and meet the minimum standard for a Teaching Performance Assessment (TPA). The TPA is completed in the final professional experience unit EDST4020 *Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms.*

In completing the TPA, TES must provide evidence of their proficiency in lesson planning, classroom teaching, assessment of student learning, and critical reflection on their classroom practice. All information regarding this assessment is available on EDSTCOMM (under 'Full year' in iLearn).

1.3 Workload and Planning

A 10 credit point unit requires a *minimum* study time commitment of 10 hours per week across all unit activities and requirements. This is typically a mix of face to face and independent work.

To complete your course in the minimum time you must complete 40 credit points per session if following a standard Session 1/Session 2 pattern of study.

1.4 Undergraduate Programs of Study

The Bachelor of Science and Bachelor of Education (Secondary) is a desirable double degree offered at Macquarie leading to accreditation as a secondary school teacher:

TES must complete 16 units in the core zone of the Bachelor of Science and 16 units in the core zone of the Bachelor of Education (Secondary) which includes units in educational theory, pedagogy, methodology and professional practice.

These programs may be completed in four years of full-time study. The option for part-time study is available.

1.4.1 Subject content requirements

In order to be accredited as a secondary school teacher in NSW, graduates must satisfy the NESA subject content requirements. These minimum requirements may vary based on the teaching subject. These requirements also may differ from the requirements of the Macquarie program of study (i.e., have specific requirements which may include units outside the major or minor). Thus, students are reminded it is ultimately their responsibility to be familiar with both their degree requirements and the requirements of NESA.

SECTION 2

Bachelor of Science and Bachelor of Education (Secondary)

All TES must meet their LANTITE requirement by the end of the second year of full-time study. See section 1.2.2 Literacy and Numeracy Tests for Initial Teacher Education (LANTITE)

2.1 First Teaching Subject

Secondary Teacher Education Students (TES) must select a first teaching subject. TES shall enrol in a major that aligns to the subject you wish to teach and satisfies NESA subject content requirements. Some subject areas have specific requirements which may include units outside the major (see section 1.4.1).

The table below outlines teaching subject areas and appropriate majors available in the Bachelor of Science and Bachelor of Education (Secondary).

First Teaching Subject	Major
Biology	BiologyHuman Biology
Chemistry	■ Chemistry
Earth and Environmental Sciences (EES)	 Earth and Environmental Sciences Note: To meet NESA requirements to teach EES, you must include at least one unit in Biology or Human Biology in your studies
Mathematics	 Mathematics Note: The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000. Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMQ. The unit must be completed prior to starting the major.
Physics	 Astronomy and Astrophysics Physics Note: TES who major in Physics or Astronomy and Astrophysics must select Mathematics as a minor to meet the pre- and co-requisites for enrolment in Essential Physics units: PHYS1020 Electric and Magnetic Interactions PHYS2010 Classical and Quantum Oscillations and Waves. PHYS2030 Electromagnetism and Relativity PHYS2030 The Structure of Matter Note: Students who do not meet the HSC prerequisites for PHYS1010 (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH1000 or MATH130 or WFMA003 or WFMA0003] or MATH1010 [(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000] may seek to enrol in MATH1000 Introduction to Mathematical Modelling. This unit is an elementary unit designed for Engineering, Mathematics and Physics students whose

First Teaching Major Subject

mathematics background has not met the recommended standard for students entering these programs.

As there is no elective space in this double degree, students will need to submit an Enrolment Support form via AskMq to make room for MATH1000 in their program and for advice on an alternative study plan. Due to the offering patterns in the degree, students requiring this prerequisite unit will be unable to complete this degree in four years.

2.2 Additional Science Subject

To improve employability, Secondary TES are encouraged to select an additional science subject. You will enrol in a minor that aligns to the subject you wish to teach and satisfies NESA subject content requirements (see section 1.4.1). The minor shall consist of four units, with no more than two units at first year level. Note: Students who major in Mathematics do not require a second teaching subject but may minor in Statistical Modelling to enhance their mathematical knowledge.

The table below outlines the appropriate major and minor study combinations available in the Bachelor of Science and Bachelor of Education (Secondary).

Academic Major	Academic Minor	Meets NESA requirements to teach
Biology OR Human Biology	Chemistry	Biology and Chemistry Both first teaching subjects
Biology OR Human Biology	Earth and Environmental Sciences	Biology and Earth and Environmental Sciences Both first teaching subjects
Biology	Mathematics	Biology first teaching subject Mathematics second teaching subject
Human Biology	Mathematics	Biology first teaching subject Mathematics second teaching subject
Chemistry	Biology	Biology and Chemistry Both first teaching subjects
Chemistry	Human Biology	Biology and Chemistry Both first teaching subjects
Chemistry	Mathematics	Chemistry first teaching subject Mathematics second teaching subject
Earth and Environmental Science	Biology	Earth and Environmental Sciences and Biology Both first teaching subjects
Mathematics	Biology	Mathematics and Biology Both first teaching subjects
Mathematics	Human Biology	Mathematics and Biology Both first teaching subjects
Mathematics	Chemistry	Mathematics and Chemistry Both first teaching subject
Mathematics	Physics	Mathematics/Physics Both first teaching subjects
Mathematics	Statistical Modelling	Mathematics first teaching subject
Physics OR Astronomy and Astrophysics	Mathematics	Mathematics/Physics Both first teaching subjects

2024 Student Guide_BScBEd(Sec)

2.3 Bachelor of Science and Bachelor of Education (Secondary) – Content requirements and suggested patterns of study

This section sets out suggested patterns of study for the academic major and minor combinations that will meet NESA requirements for accreditation to teach. These patterns demonstrate how a program can be completed in four years full-time.

These suggested patterns are based on the unit availability in the 2024 Handbook. This is subject to change, and some units may not be offered every year or may be discontinued. Please check current requirements in the online Handbook before enrolling each year.

ACADEMIC MAJORS AND MINORS IN THE BScBEd(Sec)				
MAJORS MINORS				
 Astronomy and Astrophysics 	Biology			
■ Biology	Chemistry			
Chemistry	 Earth and Environmental Sciences 			
 Earth and Environmental Sciences 	 Human Biology 			
 Human Biology 	 Mathematics 			
 Mathematics 	Physics			
Physics	 Statistical Modelling 			

EDTE4330 and EDTE4340 Science in the Secondary School I and II are the required methodology units for accreditation to teach Science in NSW Secondary Schools.

EDTE4290 and EDTE4300 Mathematics in the Secondary School I and II are the required methodology units for accreditation to teach Mathematics as a first or second teaching subject in NSW Secondary Schools.

2.4 Major in Biology

2.4.1 Suggested Pattern of Study - Major in Biology with a minor in Chemistry

This pattern of study will meet NESA subject content requirements to teach Biology and Chemistry as first teaching subjects.

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
BIOL1310	Organisms to Ecosystems	10	BIOL1110 Genes to Organisms	10
CHEM1001	Foundations of Chemical and Biomolecular Sciences 1	10	CHEM1002 Foundations of Chemical and Biomolecular Sciences 2	10
	equisites for BIOL2110 and BIOL2410 lude at least one of the following units in Statistical Concepts for Science OR Introductory Statistics	10	FOSE/STAT 1000 Level Option Set	10
Year 2 Sessi	ion 1		Year 2 Session 2	
EDST2999 <i>L</i>			d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620	Education: The Learner	10	BIOL2410 Ecology	10
BIOL2110	Genetics	10	BIOL2210 Life Processes	10
CHEM2401 CHEM2601	Physical Chemistry 1 OR Synthesis	10	CHEM2201 Analysis and Measurement	10
Year 3 Sessi	ion 1		Year 3 Session 2	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
BIOL3510	Vertebrate Biology and Behaviour	10	EDTE4330 Science in the Secondary School I	10
BIOL3640	PACE Experience in Biological Sciences	10	BIOL3310 Invertebrate Biology and Behaviour	10
FOSE3000	Making Science Work for You and Society (CAPSTONE)	10	BIOL3410 Plant Biology	10
Year 4 Sessi	ion 1		Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4340	Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120	Adolescent Development and Classroom Practice	10	EDST4200 Using and interpreting Educational Data	10
EDUC unit at	3000 level	10	EDUC unit at 3000 level	10

2.4.2 Suggested Pattern of Study – Major in Biology with a minor in Earth and Environmental Sciences

This pattern of study will meet NESA subject content requirements to teach Biology and Earth and Environmental Sciences as first teaching subjects.

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
BIOL1310	Organisms to Ecosystems	10	BIOL1110 Genes to Organisms	10
ENVS1017	The Living Environment	10	EESC1150 Planet Earth	10
	equisites for BIOL2110 and BIOL2410 ude at least one of the following units in Statistical Concepts for Science OR Introductory Statistics	10	FOSE/STAT 1000 Level Option Set	10
Year 2 Sessi	•		Year 2 Session 2	
EDST2999 <i>L.</i>			d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620	Education: The Learner	10	BIOL2410 Ecology	10
BIOL2110	Genetics	10	BIOL2210 Life Processes	10
ENVS2266	Earth Surface Processes OR	10	EESC2150 Mass extinctions and the hidden history of Earth OR	10
ENVS2364	Introduction to Geographic Information Science and Remote Sensing		ENVS3241 Active Environments (S3) **	
Year 3 Sessi	on 1		Year 3 Session 2	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
BIOL3510	Vertebrate Biology and Behaviour	10	EDTE4330 Science in the Secondary School I	10
BIOL3640	PACE Experience in Biological Sciences	10	BIOL3310 Invertebrate Biology and Behaviour	10
FOSE3000	Making Science Work for You and Society (CAPSTONE)	10	BIOL3410 Plant Biology	10
Year 4 Sessi	Year 4 Session 1		Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4340	Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120	Adolescent Development and Classroom Practice	10	EDST4200 Using and interpreting Educational Data	10
EDUC unit at	3000 level	10	EDUC unit at 3000 level	10

^{**} As the prerequisite for *ENVS3241 - Active Environments is 130cp at 1000 level or above and permission by special approval*, this unit may be available to you in Y2 S3. Please contact the Department of Earth and Environmental Science for advice through ask.mq.edu.au. This unit may also be completed in Y3 S3 or Y4 S3.

2.4.3 Suggested Pattern of Study - Major in Biology with a minor in Mathematics

This pattern of study will meet NESA subject content requirements to teach Biology and a first teaching subject and Mathematics as a second teaching subject.

Note: The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq.

Please check current requirements in the online Handbook before enrolling.

EDST1000 Exploring Australian Education: Social and Historical Contexts 10	Year 1 Session 1		ср	Year 1 Session 2	ср
MATH1010 Calculus and Linear Algebra I OR 10 MATH1020 Calculus and Linear Algebra II (Advanced) 10 MATH1015 Calculus and Linear Algebra I (Advanced) 10 MATH1025 Calculus and Linear Algebra II (Advanced) 10 To meet prerequisities for BIOL2410 you must include at least one of the following units in your studies: 10 FOSE/STAT1000 Level Option Set 10 FOSE1015 Statistical Concepts for Science OR 10 FOSE/STAT1000 Level Option Set 10 STAT1170 Introductory Statistics 10 FOSE/STAT1000 Level Option Set 10 FOSE2999 LAWITTE Ensure that you have met the standard for both literacy and numeracy by the end of your second year of study. See paragraph 1.2.2 for full information regarding LANTITE and its requirements 0 EDST2000 The Practice of Teaching: Inclusive Education (10 days) 10 EDST3170 Indigenous Education 10 EDV2 2620 Education (10 days) 10 BIOL2410 Ecology 10 BIOL2110 Genetics 10 BIOL2210 Life Processes 10 MATH2020 Vector Calculus and Linear Algebra III 10 MATH20200 Vector Calculus and Complex Analysis 10	EDST1000		10		10
NATH1015	BIOL1310	Organisms to Ecosystems	10	BIOL1110 Genes to Organisms	10
To meet prerequisites for BIOL2410 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR STAT1170 Introductory Statistics Year 2 Session 1		OR Calculus and Linear Algebra I	10	OR MATH1025 Calculus and Linear Algebra II	10
at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR Introductory Statistics Year 2 Session 1	To meet prer			(Advanced)	
Vear 2 Session 1 Vear 2 Session 2					
Page 2 Session 1		OR	10	FOSE/STAT1000 Level Option Set	10
EDST2999 LANTITE your second year of study. See paragraph 1.2.2 for full information regarding LANTITE and its requirements EDST2000 The Practice of Teaching: Inclusive Education (10 days) EDUC 2620 Education: The Learner 10 BIOL2210 Ecology 10 BIOL22110 Genetics 10 BIOL22110 Life Processes 10 MATH2020 Vector Calculus and Complex Analysis OR MATH2010 Calculus and Linear Algebra III 10 MATH2010 Mathematical Modelling and Differential Equations Year 3 Session 1 EDST3140 Introduction to the Secondary Curriculum EDST3140 Vertebrate Biology and Behaviour BIOL3510 Vertebrate Biology and Behaviour BIOL3640 PACE Experience in Biological Sciences 10 BIOL3630 Making Science Work for You and Society (CAPSTONE) EDST4010 Practice of Teaching: CT in the Secondary School (30 days) EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days) EDST4120 Adolescent Development and		•			
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Education (10 days) EDUC 2620 Education: The Learner 10 BIOL2410 Ecology 10 BIOL2110 Genetics 10 BIOL2210 Life Processes 10 MATH2020 Vector Calculus and Complex Analysis OR OR OR MATH2110 Mathematical Modelling and Differential Equations Year 3 Session 1 EDST3140 Introduction to the Secondary Curriculum BIOL3510 Vertebrate Biology and Behaviour BIOL3640 PACE Experience in Biological Sciences 10 EDTE4330 Science in the Secondary School I BIOL3410 Plant Biology FOSE3000 Making Science Work for You and Society (CAPSTONE) EDST4010 Practice of Teaching: Classroom Management and Assessment in the Secondary School I 10 EDST4010 Practice of Teaching: ICT in the Secondary School II EDST4010 Practice of Teaching: Classroom School II EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary School II EDST4030 Mathematics in the Secondary School II EDST4030 Mathematics in the Secondary School II EDST4030 Mathematics in the Secondary School II EDST4120 Mathematics in the Secondary School II EDST4120 Adolescent Development and	EDST2999 <i>L</i>	your second year of study. See paragraph			0
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MATH2010 Calculus and Linear Algebra III 10 MATH2110 Mathematical Modelling and Differential Equations Year 3 Session 1 EDST3140 Introduction to the Secondary Curriculum 10 EDTE4330 Science in the Secondary School II BIOL3510 Vertebrate Biology and Behaviour BIOL3510 Vertebrate Biology and Behaviour FOSE3000 Making Science Work for You and Society (CAPSTONE) DIOL3510 Practice of Teaching: Classroom Management and Assessment in the Secondary School I BIOL3510 Practice in the Secondary School I BIOL3510 Practice of Teaching: Classroom Management and Assessment in the Secondary School I BIOL3640 PACE Experience in Biological Sciences 10 EDTE4290 Mathematics in the Secondary School I BIOL3310 Invertebrate Biology and Behaviour 10 BIOL3410 Plant Biology 10 Practice of Teaching: ICT in the Secondary School II EDST4010 Practice of Teaching: ICT in the Secondary School II EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days) EDTE4340 Science in the Secondary School II EDST4120 Mathematics in the Secondary School II EDST4200 Using and Interpreting Educational Data 10 EDST4120 Adolescent Development and	EDUC 2620	Education: The Learner	10	BIOL2410 Ecology	10
MATH2010 Calculus and Linear Algebra III 10	BIOL2110	Genetics	10	BIOL2210 Life Processes	10
EDST3140 Introduction to the Secondary Curriculum	MATH2010	Calculus and Linear Algebra III	10	Analysis OR MATH2110 Mathematical Modelling and	10
Introduction to the Secondary Curriculum	Year 3 Sess	ion 1		Year 3 Session 2 * FIVE UNITS	
BIOL3640 PACE Experience in Biological Sciences 10 EDTE4290 Mathematics in the Secondary School I 10 EDTE4290 Mathematics in the Secondary School I 10 BIOL3310 Invertebrate Biology and Behaviour 10 BIOL3410 Plant Biology 10 Practice of Teaching: ICT in the Secondary School (30 days) EDTE4340 Science in the Secondary School II 10 EDST4180 Transitioning to the Secondary Classrooms (30 days) 10 EDTE4300 Mathematics in the Secondary School II 10 EDST4200 Using and Interpreting Educational Data 10 EDST4120 Adolescent Development and 10	EDST3140		10	Management and Assessment in the	10
Sciences FOSE3000 Making Science Work for You and Society (CAPSTONE) BIOL3310 Invertebrate Biology and Behaviour BIOL3410 Plant Biology 10 Year 4 Session 1 EDST4010 Practice of Teaching: ICT in the Secondary School (30 days) EDTE4340 Science in the Secondary School II EDTE4340 Mathematics in the Secondary School II EDST4120 Adolescent Development and 10 BIOL3310 Invertebrate Biology and Behaviour 10 BIOL3410 Plant Biology 10 EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days) 10 EDST4180 Transitioning to the Secondary Teaching Profession 10 EDST4120 Adolescent Development and	BIOL3510	Vertebrate Biology and Behaviour	10	EDTE4330 Science in the Secondary School I	10
Society (CAPSTONE) BIOL3310 Invertebrate Biology and Benaviour BIOL3310 Plant Biology 10 Year 4 Session 1 EDST4010 Practice of Teaching: ICT in the Secondary School (30 days) EDTE4340 Science in the Secondary School II EDTE4340 Mathematics in the Secondary School II EDST4120 Adolescent Development and BIOL3310 Invertebrate Biology and Benaviour 10 EDST4100 Plant Biology 10 EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days) 10 EDST4020 Transitioning to the Secondary Teaching Profession 10 EDST4120 Adolescent Development and	BIOL3640		10		10
Year 4 Session 1 Year 4 Session 2 EDST4010 Practice of Teaching: ICT in the Secondary School (30 days) 10 EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days) 10 EDTE4340 Science in the Secondary School II 10 EDST4180 Transitioning to the Secondary Teaching Profession 10 EDTE4300 Mathematics in the Secondary School II 10 EDST4200 Using and Interpreting Educational Data 10 EDST4120 Adolescent Development and 10	FOSE3000		10	BIOL3310 Invertebrate Biology and Behaviour	10
EDST4010 Practice of Teaching: ICT in the Secondary School (30 days) EDTE4340 Science in the Secondary School II EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days) EDTE4340 Science in the Secondary School II EDST4180 Transitioning to the Secondary Teaching Profession EDST4200 Using and Interpreting Educational Data EDST4120 Adolescent Development and			_	BIOL3410 Plant Biology	10
EDST41010 Practice of Teaching: ICT in the Secondary School (30 days) EDTE4340 Science in the Secondary School II EDTE4340 Mathematics in the Secondary School II EDST4180 Transitioning to the Secondary Teaching Profession EDST4120 Adolescent Development and 10 Linguistically Diverse Secondary Classrooms (30 days) 10 EDST4180 Transitioning to the Secondary Teaching Profession 10 EDST4120 Using and Interpreting Educational Data	Year 4 Sess	ion 1		Year 4 Session 2	
EDTE4300 Mathematics in the Secondary School II 10 EDST4200 Using and Interpreting Educational Data 10 EDST4120 Adolescent Development and 10	EDST4010		10	Linguistically Diverse Secondary	10
EDST4120 Adolescent Development and 10	EDTE4340	Science in the Secondary School II	10		10
1 10 1	EDTE4300	Mathematics in the Secondary School II	10		10
· · · · · · · · · · · · · · · · · · ·	EDST4120		10		

Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2.

Seek advice early in your program if you would prefer an alternate pattern.

2.5 Major in Human Biology

2.5.1 Suggested Pattern of Study – Major in Human Biology with a minor in Chemistry

This pattern of study will meet NESA subject content requirements to teach Biology and Chemistry as first teaching subjects.

Year 1 Session 1	ср	Year 1 Session 2	ср
EDST1000 Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
BIOL1210 Human Biology	10	BIOL1110 Genes to Organisms	10
CHEM1001 Foundations of Chemical and Biomolecular Sciences 1	10	CHEM1002 Foundations of Chemical and Biomolecular Sciences 2	10
To meet prerequisites for BIOL2110 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR STAT1170 Introductory Statistics	10	FOSE/STAT 1000 Level Option Set	10
Year 2 Session 1		Year 2 Session 2	
EDST2999 LANTITE Ensure that you have met the		d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
EDST2000 The Practice of Teaching: Inclusive Education (10 days)	10	EDUC 2620 Education: The Learner	10
BIOL2110 Genetics	10	EDST3170 Indigenous Education	10
BIOL2230 Neurophysiology	10	BIOL2220 Systems Physiology	10
CHEM2401 Physical Chemistry 1 OR CHEM260 Synthesis	10	CHEM2201 Analysis and Measurement	10
Year 3 Session 1		Year 3 Session 2	
EDST3140 Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
BIOL3120 Human Genetics and Evolutionary Medicine	10	EDTE4330 Science in the Secondary School I	10
BIOL3210 Advanced Human Physiology	10	ANTH3022 Gender, Sexuality and Global Health	10
BIOL3640 PACE Experience in Biological Sciences	10	FOSE3000 Making Science Work for You and Society	10
Year 4 Session 1		Year 4 Session 2	
EDST4010 Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4340 Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120 Adolescent Development and Classroom Practice	10	EDST4200 Using and Interpreting Educational Data	10
EDUC unit at 3000 level	10	EDUC unit at 3000 level	10

2.5.2 Suggested Pattern of Study – Major in Human Biology with a minor in Earth and Environmental Sciences

This pattern of study will meet NESA subject content requirements to teach Biology and Earth and Environmental Science as first teaching subjects.

Year 1 Session 1	ср	Year 1 Session 2	Ср]	
EDST1000 Exploring Australian	- 1	EDST1010 Learning	-		
Education: Social and Historical Contexts	10	Developr			
BIOL1210 Human Biology	10	BIOL1110 Genes to	Organisms 10		
ENVS1017 The Living Environment	10	EESC1150 Planet Ea	arth 10		
To meet prerequisites for BIOL2110 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for	10	FOSE/STAT 1000 Lev	el Option Set 10		
Science OR	10	103L/31A1 1000 Lev	ei Option Set		
STAT1170 Introductory Statistics					
Year 2 Session 1		Year 2 Session 2		Year 2 Session 3	ср
			cy and numeracy by the en		0
EDST2000 The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigeno	us Education 10		
EDUC 2620 Education: The Learner	10	BIOL2220 Systems	Physiology 10		
BIOL2110 Genetics	10		inctions and the story of Earth		
BIOL2230 Neurophysiology	10			ENVS3241 Active Environments	10
Year 3 Session 1		Year 3 Session 2			
EDST3140 Introduction to the Secondary Curriculum	10	and Asses	Teaching: Management sment in the School (10 days)		
BIOL3120 Human Genetics and Evolutionary Medicine	10	EDTE4330 Science in School I	the Secondary 10		
BIOL3210 Advanced Human Physiology	10	ANTH3022 Gender, So Global Hea	exuality and alth		
BIOL3640 PACE Experience in Biological Sciences	10	FOSE3000 Making Sc You and S (CAPSTON			
Year 4 Session 1		Year 4 Session 2			
EDST4010 Practice of Teaching: ICT in the Secondary School (30 days)	10	Diverse Se	and Linguistically		
EDTE4340 Science in the Secondary School II	10	EDST4180 Transitioni Secondary Profession	Teaching 10		
EDST4120 Adolescent Development and Classroom Practice	10	EDST4200 Using and Educations	Interpreting 10		
EDUC unit at 3000 level	10	EDUC unit at 3000 level	10		
	l			J	

2.5.3 Suggested Pattern of Study – Major in Human Biology with minor in Mathematics

This pattern of study will meet NESA subject content requirements to teach Biology as a first teaching subject and Mathematics as a second teaching subject

Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
BIOL1210	Human Biology	10	BIOL1110 Genes to Organisms	10
MATH1010 OF MATH1015	· ·	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
	equisites for BIOL2110 you must include at the following units in your studies: Statistical Concepts for Science OR Introductory Statistics	10	FOSE/STAT 1000 Level Option Set	10
Year 2 Sess	·		Year 2 Session 2	
EDST2999 <i>L</i>	ANTITE Ensure that you have met the sta	ndard f 2.2 for f	for both literacy and numeracy by the end of your second	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDUC 2620 Education: The Learner	10
BIOL2110	Genetics	10	BIOL2220 Systems Physiology	10
BIOL2230	Neurophysiology	10	MATH2020 Vector Calculus and Complex Analysis OR MATH2110 Mathematical Modelling and Differential Equations	10
MATH2010	Calculus and Linear Algebra III	10	EDST3170 Indigenous Education	10
Year 3 Sess	ion 1		Year 3 Session 2 * FIVE UNITS	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
BIOL3120	Human Genetics and Evolutionary Medicine	10	EDTE4330 Science in the Secondary School I	10
BIOL3210	Advanced Human Physiology	10	EDTE4290 Mathematics in the Secondary School I	10
BIOL3640	PACE Experience in Biological Sciences	10	ANTH3022 Gender, Sexuality and Global Health	10
			FOSE3000 Making Science Work for You and Society (CAPSTONE)	10
Year 4 Session 1			Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4340	Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDTE4300	Mathematics in the Secondary School II	10	EDST4200 Using and Interpreting Educational Data	10
EDST4120	Adolescent Development and Classroom Practice	10		

Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2.

Seek advice early in your program if you would prefer an alternate pattern.

2.6 Major in Chemistry

2.6.1 Suggested Pattern of Study - Major in Chemistry with a minor in Biology

This pattern of study will meet NESA subject content requirements to teach Chemistry and Biology as first teaching subjects.

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
CHEM1001	Foundations of Chemical and Biomolecular Sciences 1	10	CHEM1002 Foundations of Chemical and Biomolecular Sciences 2	10
BIOL1310	Organisms to Ecosystems	10	BIOL1110 Genes to Organisms	10
To meet prerequisites for BIOL2110 and BIOL2410 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR STAT1170 Introductory Statistics		10	FOSE/STAT 1000 Level Option Set	10
Year 2 Sessi	ion 1		Year 2 Session 2	
EDST2999 <i>L</i>			I for both literacy and numeracy by the end of you 1.2.2 for full information regarding LANTITE and i	
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDUC2620 Education: The Learner	10
CHEM2401	Physical Chemistry 1	10	EDST3170 Indigenous Education	10
CHEM2601	Synthesis	10	CHEM2201 Analysis and Measurement	10
BIOL2110	Genetics	10	BIOL2210 Life Processes OR BIOL2410 Ecology	10
Year 3 Sessi	ion 1		Year 3 Session 2	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in Secondary School (10 days)	the
CHEM3202	Advanced Analysis and Measurement	10	EDTE4330 Science in the Secondary School	I
CHEM3801	Medicinal Chemistry	10	CHEM3601 Advanced Synthesis	
FOSE3000	Making Science Work for You and Society (CAPSTONE)		MOLS3003 Molecular Sciences Project (PACE	Ξ)
Year 4 Sessi	ion 1		Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally an Linguistically Diverse Secondary Classrooms (30 days)	d 10
EDTE4340	Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120	Adolescent Development and Classroom Practice	10	EDST4200 Using and Interpreting Educationa Data	10
EDUC unit at	: 3000 level	10	EDUC unit at 3000 level	10

2.6.2 Suggested Pattern of Study – Major in Chemistry with a minor in Human Biology

This pattern of study will meet NESA subject content requirements to teach Chemistry and Biology as first teaching subjects.

Note

Although ANTH3022 Gender, Sexuality and Global Health is offered in the Human Biology minor, it does not contribute to the NESA requirements for teaching in NSW schools. You must only select units with a BIOL prefix to meet requirements to teach.

Year 1 Sessi	ion 1	ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
CHEM1001	Foundations of Chemical and Biomolecular Sciences 1	10	CHEM1002 Foundations of Chemical and Biomolecular Sciences 2	10
BIOL2230	Neurophysiology	10	BIOL2220 Systems Physiology	10
	equisites for BIOL2110 you must include at the following units in your studies: Statistical Concepts for Science OR Introductory Statistics	10	FOSE/STAT1000 Level Option Set	10
Year 2 Sessi	ion 1		Year 2 Session 2	
EDST2999 <i>L</i>			d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDUC2620 Education: The Learner	10
CHEM2401	Physical Chemistry 1		EDST3170 Indigenous Education	
CHEM2601	Synthesis	10	CHEM2201 Analysis and Measurement	10
BIOL2110 OR BIOL2230	Genetics Neurophysiology	10	BIOL2220 Systems Physiology	10
Year 3 Sessi	ion 1		Year 3 Session 2	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
CHEM3202	Advanced Analysis and Measurement	10	EDTE4330 Science in the Secondary School I	10
CHEM3801	Medicinal Chemistry	10	CHEM3601 Advanced Synthesis	10
FOSE3000	Making Science Work for You and Society (CAPSTONE)	10	MOLS3003 Molecular Sciences Project (PACE)	10
Year 4 Sessi	ion 1		Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4340	Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120	Adolescent Development and Classroom Practice	10	EDST4200 Using and Interpreting Educational Data	10
EDUC unit at	3000 level	10	EDUC unit at 3000 level	10

2.6.3 Suggested Pattern of Study – Major in Chemistry with a minor in Mathematics

This pattern of study will meet NESA subject content requirements to teach Chemistry as a first teaching subject and Mathematics as a second teaching subject

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Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Please check current requirements in the online Handbook before enrolling.

Year 1 Session 1		Year 1 Session 2		ср
	10			10
	10	Bior	molecular Sciences 2	10
OR culus and Linear Algebra I	10	O MATH1025 Cal	PR culus and Linear Algebra II	10
Level Option Set	10	FOSE/STAT1000	Level Option Set	10
		Year 2 Session 2	!	
				0
		EDUC 2620 Edu	ucation: The Learner	
cal Chemistry 1	10	EDST3170 Indi	igenous Education	10
nesis	10	CHEM2201 Ana	alysis and Measurement	10
ılus and Linear Algebra III	10	OR MATH2110 Mat	thematical Modelling and Differential	10
Year 3 Session 1		Year 3 Session 2	* FIVE UNITS	
•	10	Mar	nagement and Assessment in the	10
nced Analysis and Measurement	10	EDTE4330 Scie	ence in the Secondary School I	10
cinal Chemistry	10	EDTE4290 Mat	thematics in the Secondary School I	10
	10	CHEM3601 Adv	vanced Synthesis	10
		MOLS3003 Mole	ecular Sciences Project (PACE)	10
		Year 4 Session 2		
S S	10	Lingu	uistically Diverse Secondary	10
ence in the Secondary School II	10		, ,	10
	10	EDST4200 Using	g and Interpreting Educational Data	10
	10			
	culus and Linear Algebra I vanced) Level Option Set E Ensure that you have met the second year of study. See pa	distorical Contexts Indiations of Chemical and molecular Sciences 1 culus and Linear Algebra I OR culus and Linear Algebra I Indiations of Chemical and molecular Sciences 1 Culus and Linear Algebra I Indiation Set Indiation	ring Australian Education: Social distorical Contexts Indations of Chemical and molecular Sciences 1 culus and Linear Algebra I OR MATH1025 Call (Act OR) Culus and Linear Algebra I OR Can MATH1025 Call (Act OR) FOSE/STAT1000 Year 2 Session 2 FE Ensure that you have met the standard for both literacy are second year of study. See paragraph 1.2.2 for full informative requirements Practice of Teaching: Inclusive action (10 days) Ical Chemistry 1 10 EDST3170 Individual and Linear Algebra III 10 MATH2020 Vectors MATH2020 Vectors OR MATH2020 Vectors OR MATH2110 Ma Eq. Waar 3 Session 2 Cultion to the Secondary Culum 10 EDTE4330 Scienced Analysis and Measurement 10 EDTE4330 Science Contain Chemistry 10 EDTE4290 Math Math (CAPSTONE) 10 CHEM3601 Advised Chemistry 10 EDST4020 Practice of Teaching: ICT in the condary School (30 days) 10 EDST4180 Trans Cuttice of Teaching: ICT in the condary School (30 days) 10 EDST4180 Trans Cuttice of Teaching: ICT in the condary School II 10 EDST4180 Trans Control II 10 EDST4180 Trans Chemistry 10 EDST4200 Usin the condary School III 10 EDST4200 Usin III 10 EDST4200	ring Australian Education: Social distorical Contexts 10

^{*} Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2.

Seek advice early in your program if you would prefer an alternate pattern.

2.7 Major in Earth and Environmental Sciences (EES)

2.7.1 Suggested Pattern of Study - major in EES minor in Biology

This pattern of study will meet NESA subject content requirements to teach EES and Biology as first teaching subjects.

Year 1 Session 1	ср	Year 1 Session 2			
EDST1000 Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10		
ENVS1017 The Living Environment	10	EESC1150 Planet Earth	10		
BIOL1310 Organisms to Ecosystems	10	BIOL1110 Genes to Organisms	10		
To meet prerequisites for BIOL2110 and BIOL2410 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR	10	FOSE/STAT 1000 Level Option Set	10		
STAT1170 Introductory Statistics Year 2 Session 1		Year 2 Session 2		Year 2 Session 3	ср
			ov by t		СР
EDST2999 <i>LANTITE</i> Ensure that you lead to study. See paragraph 1.2.2 for full information r		net the standard for both literacy and numera ng LANTITE and its requirements	су бу т	ne end or your second year or	0
EDST2000 The Practice of Teaching: Inclusive Education (10 days)	10	EDUC 2620 Education: The Learner	10	ENVS3241 Active Environments	10
ENVS2266 Earth Surface Processes	10	EESC2150 Mass extinctions and the hidden history of Earth	10		
ENVS2364 Introduction to Geographic Information Science and Remote Sensing	10	BIOL2410 Ecology OR BIOL2210 Life Processes	10		
BIOL2110 Genetics	10				
Year 3 Session 1		Year 3 Session 2			
EDST3140 Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)			
EDUC unit at 3000 level	10	EDTE4330 Science in the Secondary School I	10		
ENVS3240 Environmental Change	10	ENVS3238 Environmental Quality and Assessment	10		
EESC3000 PACE in Earth and Environmental Sciences	10	FOSE3000 Making Science Work for You and Society (CAPSTONE)	10		
Year 4 Session 1		Year 4 Session 2			
EDST4010 Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST3170 Indigenous Education	10		
EDTE4340 Science in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10		
EDUC unit at 3000 level	10	EDST4200 Using and Interpreting Educational Data	10		
EDST4120 Adolescent Development and Classroom Practice	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10		

2.8 Major in Mathematics

2.8.1 Prerequisites for first year units – Major in Mathematics; Minor in Statistical Modelling; Minor in Physics

Students who do not meet the HSC prerequisites for MATH1010 must enrol in MATH1000 *Introduction to Mathematical Modelling*. This unit is an elementary unit designed for Engineering, Mathematics and Physics students whose mathematics background has not met the recommended standard for students entering these programs.

As there is no elective space in this double degree, students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via ask.mq.edu.au.

Due to the offering patterns in the degree, students requiring this prerequisite unit will be unable to complete this degree in four years. Please seek Course Guidance via AskMq if you need assistance planning this unit.

Unit	Prerequisite
PHYS1010 Modern Mechanics	(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH1000 or MATH130 or WFMA003 or WFMA0003
MATH1010 Calculus and Linear Algebra	(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000
MATH1015 Calculus and Linear Algebra I (Advanced)	(HSC Mathematics Extension 1 Band E3 and above or HSC Mathematics Extension 2) or admission to BMathSci or BAdvSc in Advanced Mathematics or BActStud or BActStudBSc or BAppFinBActStud or BActStudBProfPrac or BActStudProfPrac(Hons)
STAT1371 Statistical Data Analysis	(HSC Mathematics Extension 1 or Extension 2) or (10cp from MATH1000 or MATH1010-MATH1025 or MATH130-MATH136) or admission to BActStud or BActStudBSc or BAppFinBActStud or BActStudBProfPrac or BActStudProfPrac(Hons) or BMathSc

2.8.2 Suggested Pattern of Study – Major in Mathematics with a minor in Statistical Modelling

This pattern of study will meet NESA subject content requirements to teach Mathematics as a first teaching subject.

Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Students who do not meet the prerequisites for STAT1371(HSC Mathematics Extension 1 or Extension 2) or (10cp from MATH1000 or MATH1010-MATH1025 or MATH130-MATH136) or admission to BActStud or BActStudBSc or BAppFinBActStud or BActStudBProfPrac or BActStudProfPrac(Hons) or BMathSc

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
MATH1010 MATH1015	Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced)	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
STAT1371	Statistical Data Analysis	10	STAT1170 Introductory Statistics OR STAT1378 Coding and Communications in Statistics	10
FOSE/STAT	1000 Level Option Set	10	FOSE/STAT 1000 Level Option Set II	10
Year 2 Sess	ion 1		Year 2 Session 2	
EDST2999 <i>L</i>			d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620	Education: The Learner	10	MATH2020 Vector Calculus and Complex Analysis	10
MATH2010	Calculus and Linear Algebra III	10	MATH2110 Mathematical Modelling and Differential Equations	10
STAT2170 STAT2173	Applied Statistics OR Introduction to Probability	10	STAT2114 Design of Surveys and Experiments OR STAT2372 Probability	10
Year 3 Sessi	,		Year 3 Session 2	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
MATH 3000	Level Option Set	10	EDTE4290 Mathematics in the Secondary School I	10
MATH 3000	Level Option Set	10	MATH 3000 Level Option Set	10
FOSE3000	Making Science Work for You and Society (CAPSTONE)	10	MATH3599 Professional Practice for Mathematical Sciences (PACE)	10
Year 4 Sess	Year 4 Session 1		Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4300	Mathematics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120	Adolescent Development and Classroom Practice	10	EDST4200 Using and interpreting Educational Data	10
EDUC unit at	t 3000 level	10	EDUC unit at 3000 level	10

2.8.3 Suggested Pattern of Study - Major in Mathematics with a minor in Physics

This pattern of study will meet NESA subject content requirements to teach Mathematics and Physics as a first teaching subject.

Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Year 1 Session 1		ср	Year 1 Session 2	ср
, ,	Australian Education: Social ical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
OR	and Linear Algebra I and Linear Algebra I	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
PHYS1010 Modern M	echanics	10	PHYS1020 Electric and Magnetic Interactions	10
FOSE/STAT 1000 Level	Option Set	10	FOSE/STAT 1000 Level Option Set II	10
Year 2 Session 1			Year 2 Session 2	
			d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
	ctice of Teaching: Inclusive on (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620 Education	on: The Learner	10	MATH2020 Vector Calculus and Complex Analysis	10
MATH2010 Calculus	s and Linear Algebra III	10	MATH2110 Mathematical Modelling and Differential Equations	10
PHYS2010 Classica and Wa	al and Quantum Oscillations ves	10	PHYS2030 The Structure of Matter	10
Year 3 Session 1			Year 3 Session 2	
EDST3140 Introduc Curricul	tion to the Secondary um	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
MATH 3000 Level Option	n Set	10	EDTE4290 Mathematics in the Secondary School I	10
MATH 3000 Level Option	n Set	10	MATH 3000 Level Option Set	10
	Science Work for You and (CAPSTONE)	10	MATH3599 Professional Practice for Mathematical Sciences (PACE)	10
Year 4 Session 1			Year 4 Session 2	
	f Teaching: ICT in the / School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4300 Mathemat	ics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDST4120 Adolescer Classroon	nt Development and n Practice	10	EDST4200 Using and Interpreting Educational Data	10
EDUC unit at 3000 level		10	EDUC unit at 3000 level	10

2.8.4 Suggested Pattern of Study - Major in Mathematics with a minor in Biology

This pattern of study will meet NESA subject content requirements to teach Mathematics and Biology as first teaching subjects.

Note: The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Please check current requirements in the online Handbook before enrolling.

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
MATH1010 MATH1015	Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced)	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
BIOL1310	Organisms to Ecosystems	10	BIOL1110 Genes to Organisms	10
To meet prerequisites for BIOL2110 and BIOL2410 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR STAT1170 Introductory Statistics		10	FOSE/STAT 1000 Level Option Set II	10
Year 2 Sess	ion 1		Year 2 Session 2	
EDST2999 <i>L</i>			ard for both literacy and numeracy by the end of your oh 1.2.1 for full information regarding LANTITE and its	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620	Education: The Learner	10	MATH2020 Vector Calculus and Complex Analysis	10
MATH2010	Calculus and Linear Algebra III	10	MATH2110 Mathematical Modelling and Differential Equations	10
BIOL2110	Genetics	10	BIOL2410 Ecology OR BIOL2210 Life Processes	10
Year 3 Sess	ion 1		Year 3 Session 2 * FIVE UNITS	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
MATH 3000	Level Option Set	10	EDTE4290 Mathematics in the Secondary School I	10
MATH 3000	Level Option Set	10	EDTE4330 Science in the Secondary School I	10
FOSE3000	Making Science work for you and Society (CAPSTONE)	10	MATH 3000 Level Option Set	10
			MATH3599 Professional Practice for Mathematical Sciences (PACE)	10
Year 4 Sess	Year 4 Session 1		Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4300	Mathematics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDTE4340	Science in the Secondary School II	10	EDST4200 Using and Interpreting Educational Data	10
EDST4120	Adolescent Development and Classroom Practice	10		•

^{*} Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2.

Seek advice early in your program if you would prefer an alternate pattern.

2.8.5 Suggested Pattern of Study – Major in Mathematics with a minor in Human Biology

This pattern of study will meet NESA subject content requirements to teach Mathematics and Biology as first teaching subjects.

Note: The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via ask.mq.edu.au. The unit must be completed prior to starting the major.

Note: Although ANTH3022 Gender, Sexuality and Global Health is offered in the Human Biology minor, it does not contribute to the NESA requirements for teaching Biology in NSW schools. You must only select units with a BIOL prefix to meet requirements to teach.

Year 1 Session 1		ср	Year 1 Session 2	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
MATH1010 MATH1015	Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced)	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
BIOL1210	Human Biology	10	BIOL1110 Genes to Organisms	10
To meet prerequisites for BIOL2110 and BIOL2410 you must include at least one of the following units in your studies: FOSE1015 Statistical Concepts for Science OR STAT1170 Introductory Statistics		10	FOSE/STAT 1000 Level Option Set II	10
Year 2 Sess			Year 2 Session 2	
EDST2999 <i>L</i>			d for both literacy and numeracy by the end of your 1.2.2 for full information regarding LANTITE and its	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620	Education: The Learner	10	MATH2020 Vector Calculus and Complex Analysis	10
MATH2010	Calculus and Linear Algebra III	10	MATH2110 Mathematical Modelling and Differential Equations	10
BIOL2110 BIOL2230	Genetics OR Neurophysiology	10	BIOL2220 Systems Physiology	10
Year 3 Session 1			Year 3 Session 2 * FIVE UNITS	
EDST3140	Introduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	
MATH 3000	Level Option Set	10	EDTE4290 Mathematics in the Secondary School I	
MATH 3000	Level Option Set	10	EDTE4330 Science in the Secondary School I	10
FOSE3000	Making Science work for you and Society (CAPSTONE)	10	MATH 3000 Level Option Set	10
		•	MATH3599 Professional Practice for Mathematical Sciences (PACE)	10
Year 4 Session 1			Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4300	Mathematics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDTE4340	Science in the Secondary School II	10	EDST4200 Using and Interpreting Educational Data	10
EDST4120	Adolescent Development and Classroom Practice	10		
			-	

Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2. Seek advice early in your program if you would prefer an alternate pattern.

2.8.6 Suggested Pattern of Study – Major in Mathematics with a minor in Chemistry

This pattern of study will meet NESA subject content requirements to teach Mathematics and Chemistry as first teaching subjects.

Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Year 1 Session 1	ср	Year 1 Session 2	ср
EDST1000 Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
MATH1010 Calculus and Linear Algebra I OR MATH1015 Calculus and Linear Algebra I (Advanced)	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
CHEM1001 Foundations of Chemical and Biomolecular Sciences 1	10	CHEM1002 Foundations of Chemical and Biomolecular Sciences 2	10
FOSE/STAT 1000 Level Option Set	10	FOSE/STAT 1000 Level Option Set II	10
Year 2 Session 1		Year 2 Session 2	
		for both literacy and numeracy by the end of your .2.1 for full information regarding LANTITE and its	0
EDST2000 The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education	10
EDUC 2620 Education: The Learner	10	MATH2020 Vector Calculus and Complex Analysis	10
MATH2010 Calculus and Linear Algebra III	10	MATH2110 Mathematical Modelling and Differential Equations	10
CHEM2401 Physical Chemistry 1 OR CHEM2601 Synthesis	10	CHEM2201 Analysis and Measurement	10
Year 3 Session 1		Year 3 Session 2 * FIVE UNITS	
EDST3140 Introduction to the Secondary Curriculum		EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	
MATH 3000 Level Option Set	10	EDTE4290 Mathematics in the Secondary School I	10
MATH 3000 Level Option Set	10	EDTE4330 Science in the Secondary School I	10
FOSE3000 Making Science work for you and Society (CAPSTONE)	10	MATH 3000 Level Option Set	10
		MATH3599 Professional Practice for Mathematical Sciences (PACE)	10
Year 4 Session 1		Year 4 Session 2	
EDST4010 Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4300 Mathematics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDTE4340 Science in the Secondary School II	10	EDST4200 Using and Interpreting Educational Data	10
EDST4120 Adolescent Development and Classroom Practice	10		

^{*} Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2.

Seek advice early in your program if you would prefer an alternate pattern.

2.9 Major in Physics

2.9.1 Prerequisites for first year Physics and Mathematics units

Students who do not meet the HSC prerequisites for *PHYS1010* and *MATH1010* may seek to enrol in MATH1000 *Introduction to Mathematical Modelling*. This unit is an elementary unit designed for Engineering, Mathematics and Physics students whose mathematics background has not met the recommended standard for students entering these programs.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Due to the offering patterns in the degree, students requiring this prerequisite unit be unable to complete this degree in four years.

Unit	Prerequisite
PHYS1010 Modern Mechanics	(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH1000 or MATH130 or WFMA003 or WFMA0003
MATH1010 Calculus and Linear Algebra	(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000
MATH1015 Calculus and Linear Algebra I (Advanced)	(HSC Mathematics Extension 1 Band E3 and above or HSC Mathematics Extension 2) or admission to BMathSci or BAdvSc in Advanced Mathematics or BActStud or BActStudBSc or BAppFinBActStud or BActStudBProfPrac or BActStudProfPrac(Hons)

2.9.2 Suggested Pattern of Study - Major in Physics with a minor in Mathematics

This pattern of study will meet NESA subject content requirements to teach Mathematics/Physics as a first teaching subject.

Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Year 1 Sess	ion 1	ср	Year 1 Session 2 c	ср
EDST1000	Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
PHYS1010	Modern Mechanics	10	PHYS1020 Electric and Magnetic Interactions 1	10
MATH1010 MATH1015	Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced)	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
FOSE/STAT	1000 Level Option Set	10	FOSE/STAT 1000 Level Option Set	10
Year 2 Sess	ion 1		Year 2 Session 2	
EDST2999 <i>L</i>			d for both literacy and numeracy by the end of your 1.2.1 for full information regarding LANTITE and its 0	0
EDST2000	The Practice of Teaching: Inclusive Education (10 days)	10	EDST3170 Indigenous Education 1	10
EDUC 2620	Education: The Learner	10	PHYS2020 Electromagnetism and Relativity 1	10
PHYS2010	Classical and Quantum Oscillations and Waves	10	PHYS2030 The Structure of Matter 1	10
MATH2010	Calculus and Linear Algebra III	10	MATH2020 Vector Calculus and Complex Analysis OR MATH2110 Mathematical Modelling and Differential Equations	10
Year 3 Session 1			Year 3 Session 2 * FIVE UNITS	
	ntroduction to the Secondary Curriculum	10	EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	10
PHYS3010 /	Advanced Electromagnetism and Optics	10	EDTE4330 Science in the Secondary School I	10
	Making Science work for you and Society (CAPSTONE)	10	EDTE4290 Mathematics in the Secondary School I 1	10
	Condensed Matter and Statistical Physics	10	PHYS3140 Advanced Quantum Mechanics and Quantum Optics	10
			PHYS3810 PACE: Professional Experience in Physics and Astronomy (PACE)	
Year 4 Session 1			Year 4 Session 2	
EDST4010	Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
EDTE4300	Mathematics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
EDTE4340	Science in the Secondary School II	10	EDST4200 Using and Interpreting Educational Data 1	10
EDST4120	Adolescent Development and Classroom Practice	10		

^{*} Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 2.

Seek advice early in your program if you would prefer an alternate pattern.

2.10 Major in Astronomy and Astrophysics

2.10.1 Prerequisites for first year Physics and Mathematics units

Students who do not meet the HSC prerequisites for *PHYS1010* and *MATH1010* may seek to enrol in MATH1000 *Introduction to Mathematical Modelling*. This unit is an elementary unit designed for Engineering, Mathematics and Physics students whose mathematics background has not met the recommended standard for students entering these programs.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Due to the offering patterns in the degree, students requiring this prerequisite unit will be unable to complete this degree in four years.

Unit	Prerequisite
PHYS1010 Modern Mechanics	(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH1000 or MATH130 or WFMA003 or WFMA0003
MATH1010 Calculus and Linear Algebra	(HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA0003 or WMAT123 or WMAT1000
MATH1015 Calculus and Linear Algebra I (Advanced)	(HSC Mathematics Extension 1 Band E3 and above or HSC Mathematics Extension 2) or admission to BMathSci or BAdvSc in Advanced Mathematics or BActStud or BActStudBSc or BAppFinBActStud or BActStudBProfPrac or BActStudProfPrac(Hons)

2.10.2 Suggested Pattern of Study – Major in Astronomy and Astrophysics with a minor in Mathematics

This pattern of study will meet NESA subject content requirements to teach Mathematics/Physics as a first teaching subject.

Note:

The prerequisite for MATH1010 is (HSC Advanced Mathematics Band 4 and above or Extension 1 Band E2 and above or Extension 2) or MATH130 or MATH1000 or WFMA003 or WFMA003 or WMAT123 or WMAT1000.

Students who do not meet the prerequisite for MATH1010 must add MATH1000 to their study plan by submitting an Enrolment Support form via AskMq. The unit must be completed prior to starting the major.

Please check current requirements in the online Handbook before enrolling.

Year 1 Session 1		Year 1 Session 2	
Exploring Australian Education: Social and Historical Contexts	10	EDST1010 Learning and Development: An Introduction for Educators	10
Modern Mechanics	10	PHYS1020 Electric and Magnetic Interactions	10
Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced)	10	MATH1020 Calculus and Linear Algebra II OR MATH1025 Calculus and Linear Algebra II (Advanced)	10
1000 Level Option Set	10	FOSE/STAT 1000 Level Option Set II	10
Year 2 Session 1		Year 2 Session 2	
EDST2999 LANTITE Ensure that you have met the standard for both literacy and numeracy by the end of your second year of study. See paragraph 1.2.1 for full information regarding LANTITE and its requirements			0
The Practice of Teaching: Inclusive Education (10 days)		PHYS2020 Electromagnetism and Relativity	
Education: The Learner	10	ASTR2020 Observational Astronomy	10
Classical and Quantum Oscillations and Waves	10	MATH2020 Vector Calculus and Complex Analysis OR MATH2110 Mathematical Modelling and Differential Equations	10
Calculus and Linear Algebra III	10	EDST3170 Indigenous Education	10
Year 3 Session 1 * FIVE UNITS		Year 3 Session 2	
Introduction to the Secondary Curriculum		EDST3010 Practice of Teaching: Classroom Management and Assessment in the Secondary School (10 days)	
Astrophysics of Radiation and Stars		EDTE4330 Science in the Secondary School 1	
Data Science Techniques in Astrophysics		EDTE4290 Mathematics in the Secondary School I	
Making Science work for you and Society (CAPSTONE)	10	ASTR3020 Extragalactic Astronomy and Cosmology	10
Condensed Matter and Statistical Physics (PACE)	10		
Year 4 Session 1		Year 4 Session 2	
Practice of Teaching: ICT in the Secondary School (30 days)	10	EDST4020 Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms (30 days)	10
Mathematics in the Secondary School II	10	EDST4180 Transitioning to the Secondary Teaching Profession	10
Science in the Secondary School II	10	EDST4200 Using and Interpreting Educational Data	10
Adolescent Development and Classroom Practice	10		
	Exploring Australian Education: Social and Historical Contexts Modern Mechanics Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced) 1000 Level Option Set on 1 ANTITE Ensure that you have met the second year of study. See parequirements The Practice of Teaching: Inclusive Education (10 days) Education: The Learner Classical and Quantum Oscillations and Waves Calculus and Linear Algebra III on 1 * FIVE UNITS Introduction to the Secondary Curriculum Astrophysics of Radiation and Stars Data Science Techniques in Astrophysics Making Science work for you and Society (CAPSTONE) Condensed Matter and Statistical Physics (PACE) on 1 Practice of Teaching: ICT in the Secondary School (30 days) Mathematics in the Secondary School II Science in the Secondary School III	Exploring Australian Education: Social and Historical Contexts Modern Mechanics Calculus and Linear Algebra I OR Calculus and Linear Algebra I (Advanced) 1000 Level Option Set In the Practice of Teaching: Inclusive Education (10 days) Education: The Learner Calculus and Linear Algebra III Calculus and Quantum Oscillations and Waves Introduction to the Secondary Curriculum Astrophysics of Radiation and Stars Data Science Techniques in Astrophysics Making Science work for you and Society (CAPSTONE) Condensed Matter and Statistical Physics (PACE) Introduction in the Secondary School II Practice of Teaching: ICT in the Secondary School II Science in the Secondary School II Adolescent Development and	Exploring Australian Education: Social and Historical Contexts 10

^{*} Students who wish to complete this degree in four years may follow this pattern of study. Application for a credit overload will be necessary in Year 3, Session 1.

Seek advice early in your program if you would prefer an alternate pattern.

Section 3 Professional Experience Units

In the undergraduate degree programs, Professional Experience (PEX) begins in the second year of full-time study. While in schools, the Teacher Education Student (TES) works with, and is supervised by, an experienced Supervising Teacher (ST) who acts as a mentor. Students are also allocated a Tertiary Supervisor (TS) who may visit the school to meet with TES and liaise between ST and unit convenors. Full information is available on the Professional Experience website.

Pattern of Professional Experience in Schools

Year of Study	Professional Experience Unit		Professional Experience Days	Session
Year 2	EDST2000	Practice of Teaching: Inclusive Education	10	S1
Year 3	EDST3010	Practice of Teaching: Classroom Management and Assessment in the Secondary School	10	S2
Year 4	EDST4010	Practice of Teaching: ICT in the Secondary School	30	S1
Year 4	EDST4020	Practice of Teaching: Culturally and Linguistically Diverse Secondary Classrooms	30	S2

Plan your own course worksheet

First teaching subject	(Academic Major)
Additional teaching subject or Minor Study	

2024 S1	2024 S2	2024 S3
2025 S1	2025 S2	2025 S3
2000 04	2022 22	0000 00
2026 S1	2026 S2	2026 S3
2027 64	2027 62	2027 52
2027 S1	2027 S2	2027 S3