Headstart 2018

Scholarship program for academically gifted secondary school students

adelaide.edu.au
Want to get a Headstart on uni?

The University of Adelaide’s Headstart scholarship program gives high achieving students the opportunity to study at university while still in Year 12, and have these university studies count towards their SACE and ATAR.

While studying at the University part-time Headstart students not only have the opportunity to find out what university life is like before they even finish school, but also contribute to, and benefit from, the diverse cultural and intellectual life of the University of Adelaide.

Advanced Bachelors Degrees

At the University of Adelaide, the search for new knowledge is an endeavour in which students participate.

The Advanced Bachelor degrees are designed for high achieving students who are inspired by the opportunity to contribute to the world’s important discoveries and research advancements. They provide a unique experience to learn at close quarters with Adelaide academics of international distinction.

The Advanced Bachelors are ideal for students who demonstrate readiness for independent work. With the benefit of a strong research focus from the first year of the degree, students enjoy specialised small group discovery work, personal mentors and courses that are not available through other degrees. At completion, the Advanced Bachelors provide a strong pathway to further research and careers.

The Advanced Bachelor degrees on offer:
> Arts
> Computer Science
> Economics
> Health and Medical Sciences
> Mathematical Sciences
> Sciences

For more information visit adelaide.edu.au/degree-finder
I took the opportunity to participate in the Headstart program from the early age of 16 whilst studying year 11. The program has allowed me to experience the university style of learning while challenging me in my studies.

I enjoy working with and alongside new people from different cultures and with different views. I love the spaces the university offers, especially the Hub and help centres where you meet people outside your course and get motivated seeing people around you work.

The Headstart program has taught me many life skills including self-motivation and resilience to overcome challenges quickly. This has followed through to my year 12 studies, enhancing my ability to be organised and timely. The subjects I have undertaken will not only boost my year 12 academic results but also allow me to finish my degree almost a semester early.

I have loved meeting new people and having a taste of the university life, allowing me to have a smooth transition between year 12 and university.
Headstart provides gifted and highly-motivated students with a challenge beyond the Year 12 curriculum and the chance to grow as individuals as they combine secondary school and university studies. Headstart students can choose to replace or supplement their Year 12 subjects with university courses (subjects). University grades are recorded, and students are able to credit these grades towards their SACE Stage 2 level studies and ATAR.

Headstart students may also receive credit towards their degree if they enrol in a University of Adelaide program after high school, enabling them to complete their program of study early or study a wider range of courses than usual.

The scholarship
Successful Headstart applicants will receive a scholarship exempting them from both tuition fees and the Student Services and Amenities Fee for up to 12 units of first-year university study, which is equivalent to two courses per semester.

Who can apply
The Headstart program is open to Australian citizens and permanent residents, that are either accelerated or high-achieving students.

1. **Accelerated students** who have completed a Stage 2 subject in an earlier school year and are completing their SACE or IB at less than a full year’s workload. Eligibility is based on grades from completed Year 12 subjects.

2. **High-achieving students** who are not accelerated. Eligibility is based on grades from completed Year 11 subjects.

Exceptionally gifted students in lower grades may also be considered, but a special case will need to be made by schools on behalf of students who have met the SACE requirements but are not yet in Year 12.

Selection criteria
Students applying to be part of the Headstart program must be recommended by their school and have the support of their parents/guardians.

Applicants must also meet the below SACE or IB requirements.

**SACE students**
- **Accelerated students:** A minimum grade of B or better for all Year 12 subjects already taken is required, plus at least A- for any SACE Stage 2 subject that is a prerequisite for the University course to be studied.
- **High-achieving students:** A minimum grade of B or better across all Year 11 subjects is required.

**Students who wish to enrol in Mathematics IA/IB:** A SACE grade of at least A in both Mathematical Methods and Specialist Mathematics is required to enrol.

**Students who wish to enrol in Physics IA:** Students must also enrol in Mathematics IA as a co-requisite subject, and so must have a minimum grade of A- in SACE Stage 2 Physics and A in both Mathematical Methods and Specialist Mathematics.

**IB students**
- **Accelerated students:** A minimum score of 6 or higher at the Standard Level, or 5 or higher at the Higher Level for all Year 12 subjects already taken is required, plus at least 6-7 for any subject that is a prerequisite for the University course to be studied.

**High-achieving students:** A minimum score of 6 or higher at the Standard Level, or 5 or higher at the Higher Level is required.

**Students who wish to enrol in Mathematics IA/IB:** An average score of 6 or higher at the Standard Level, or 5 or higher at the Higher Level, and a score of at least 6-7 in IB Higher Level Maths are required to enrol.

Students who wish to enrol in Physics IA: Students must also enrol in Mathematics IA as a co-requisite subject, and so must have for Physics an average score of 6 or higher at the Standard Level, or 5 or higher at the Higher Level, plus a score of at least 6 in Higher Level Maths.

Additional entry criteria for 2018
**Personal statement (max 250 words):** This should include why the student is wanting to pursue the Headstart program, what are the motivating factors, how they found out about the Headstart program, plans for 2019 beyond, etc.

Headstart applications
Students wishing to apply for a place in the Headstart program must complete the online application the closing date for either semester 1 or 2.

**2018 application closing dates:**
- Semester 1: Monday 5 February 2018
- Semester 2: Monday 9 July 2018

Further details on the information and documentation required can be found on page 17.

Teaching begins three weeks after the closing date. Late applications will not be considered due to the time required for student enrolment and orientation. Any queries about your application should be directed to the Office of Academic and Student Engagement by phoning (08) 8313 3025 or emailing future.students@adelaide.edu.au
Costs
Successful applicants receive a full scholarship from the University of Adelaide, which waives both the tuition fees and the Student Services and Amenities Fee for any courses studied as part of the Headstart program. Each student is responsible for costs associated with textbooks, materials, equipment, field trips and travel to and from campus.

Midyear entry
Students may be considered for entry beginning in semester 2 if they were unable to start in semester 1. Midyear entry is only available into courses that do not have a semester 1 university course prerequisite or assumed knowledge (refer to the course descriptions beginning page 6 for further information).

Enrolment
Headstart students are not enrolled in a degree but will be registered as University Non-Award students. Upon enrolment they will receive a student card that provides access to the full range of student services offered on campus and full borrowing rights at the Barr Smith Library.

Headstart timetable
Courses are offered on the North Terrace Campus only, and Headstart students are expected to attend regularly to gain maximum benefit from their university studies. Students must refer to the university timetable for courses they are applying for and the school timetable must clearly indicate any subjects which will be dropped or lessons that can be missed in order to attend university classes should the application be accepted. 2018 timetable information will be available from 1 December on the website: access.adelaide.edu.au/courses/

Search for courses on the website using the course names listed from page 6 of this brochure, without any numbers or codes

University grades
Headstart students attend classes, submit assignments and sit examinations the same as other university students. Grades are recorded and any student who passes a Headstart course, and then enrols in a University of Adelaide degree for which the course can be presented, may receive credit for that study. This enables students to fast-track their academic program or study additional courses.

Grades will count towards the students' ATAR as agreed to by the SACE Board: HD=20.0, D=19.8, C=18.0, P=15.8

Please note: Students cannot count Headstart grades towards their ATAR if they have already completed SACE Stage 2 or the IB in Year 12, therefore applications will not be accepted from Year 13 students.

SACE recognition process
While students may be accepted to study up to four Headstart courses, a maximum of two can count towards the ATAR. Students will receive 10 credits for a one-semester course and 20 credits for a full-year course (or two-semester sequence). Applicants must read the SACE website (following) for full details.

Recognition of university studies is by application to the SACE Board using the recognition application form on the SACE website—visit: www.sace.sa.edu.au/learning then browse Other Recognised Learning, choose University Studies from the list and download the form by selecting the link at the bottom of the page.

The recognition application form must be completed and submitted by the school SACE Coordinator twice;

> when the student is accepted into the Headstart program, to have the subject and course combination approved, and

> on completion of the Headstart course(s), once the students academic transcript has been provided by the University of Adelaide.

Recognition of a Headstart course cannot be completed until the academic transcript is available. Due to the timing of this, the ATAR may need to be recalculated and the SACE certificate reissued, however, this will not impact university offers.

Withdrawal
Headstart students must carefully consider the consequences of withdrawal from the program to ensure it will not affect their success in the SACE or their ATAR. The University only accepts withdrawal in close consultation with the student’s school mentor.

If a Headstart student withdraws from a course at any stage of the year, or fails that course, this will not affect their chances of university selection (unless it prevents them from completing the SACE). No record of failure or withdrawal will be registered by the University of Adelaide.

Similarly, if a Headstart student successfully completes units of study, this will not affect selection into any undergraduate program except where the student is eligible to count grades towards their ATAR.

Mentoring
Each Headstart student must have as a mentor a staff member from their school nominated by the principal. The mentor’s role will be to monitor student progress and act as a contact person linking the University to the student within the school. They will not be required to provide academic support. The University of Adelaide will provide an ongoing role of coordination and support. This will include:

> liaison between the University and Headstart students, their parents/guardians, principals and mentor

> tracking students’ progress through their university studies

> organising academic and peer support for students.

Learning environment
The University offers a fully adult learning environment and, while there are many support services and normal duty of care applies, the University does not take on the same responsibilities of care that schools assume under the Teachers’ Registration and Standards Act and other legislation.

The student, school and parents/guardians need to make a judgment as to whether the student will adapt to involvement in university life. It is important for them to understand that this can be significantly different from the secondary school environment.
Course information

Detailed information about courses (subjects) is contained in the University of Adelaide Course Outlines, available on the University’s website at www.adelaide.edu.au/course-outlines/

Information and advice is also available from the Office of Academic and Student Engagement and the faculty/school offices:

Arts: Kate Rees
Telephone: +61 8 8313 6316

Commerce and Economics:
The Professions Hub
Telephone: +61 8 8313 4755

Computer Sciences: Dr Cruz Izu
Telephone: +61 8 8313 5762

Health and Medical Sciences: Mario Ricci
Telephone: +61 8 8313 6294

Mathematics: Dr Adrian Koerber
Telephone: +61 8 8313 5577

Psychology 1A/1B: Matthew Dry
Telephone: +61 8 8313 3856

Research Methods in Psychology:
Peter Strelan
Telephone: +61 8 8313 5662

Sciences: Jillian Brooking
Telephone: +61 8 8313 4263

Enquiries

Further information about the scheme is available from the Office of Academic and Student Engagement.

Telephone: +61 8 8313 3025
Email: future.students@adelaide.edu.au

The Headstart program has provided me with the opportunity to kick start my University studies! I have always wanted to attend university, however was unsure of what degree to study and career pathway to take. That is where the Headstart program comes in.

This program has enabled me to try different subjects, all while still attending high school. Essentially giving me the opportunity to try out a variety of different subjects that will help me narrow down a degree to undertake in the following year.

Additionally, this program supplies insight into the university’s expectations, workload and lifestyle all of which allow me to gain a deeper understanding into the world of university, most of which is learnt in first year by most school students.

I chose to undertake the subjects of Introduction to Marketing and Introduction to Management because I would like to pursue a degree in the field of commerce. So by having completed two subjects it has enabled me to get an insight into the University lifestyle, workload and having the added bonus of already having completed 6 units. I’m still undecided as to what I want to do, however a pathway connected to business would be ideal.

Jack Kotek

Headstart courses:
Marketing and Management

Headstart 2018
Arts

Argument and Critical Thinking
PHIL 1101
3 units in Semester 1
Study commitment: up to three hours per week
Assessment: 500-word essay plus 1000-word essay (50%) and two-hour open book exam (50%)
About the course: Argument is an activity we all engage in, with varying results, in every walk of life. Over the last two millennia philosophers have developed powerful methods for classifying arguments, and identifying common errors in reasoning. Argument and Critical Thinking teaches these methods and applies them to real-life arguments, both written and spoken. It is thus an introduction to communication and applied logic. Among the topics we cover are the theory of legal argument, and the science-pseudoscience debate, which gives us a chance to discuss UFOs, parapsychology, Bigfoot, the Bermuda Triangle and alien abductions!

Chinese IA
CHIN 1001
3 units in Semester 1
Study commitment: up to five hours per week
Available for Non-Award Study
Assumed Knowledge: No previous knowledge of Chinese required
Assessment: continuous assignments and tests, oral tests, mid-term test and final exams
About the course: Chinese IA is a course for beginners in the language, followed by Chinese IB in semester 2 to build up basic knowledge and skills in Chinese. Native speakers or heritage speakers of Mandarin Chinese are not eligible for this course. Students who have studied Chinese before should contact the lecturers concerned to decide the best level at which to place them.
Chinese IA teaches the fundamental grammar and vocabulary of modern standard Chinese (formerly known as Mandarin). This is the educated speech of North China which is now the official national language. Simplified characters are taught. The vocabulary reflects usage in contemporary China. It is expected that at the end of the course students should be able to master the Chinese phonetic system (Hanyu Pinyin), and should have an active vocabulary of around 200 Chinese characters and associated compounds concentrating on vocabulary that relates to contemporary China.

Chinese IB
CHIN 1002
3 units in Semester 2
Study commitment: up to five hours per week
Available for Non-Award Study
Pre-Requisite(s): CHIN 1001 or equivalent
Assessment: assignments, tests, oral tests, mid-term test and final exams
About the course: Chinese IB is a continuation of Chinese IA. It continues instruction and practice in the speaking, understanding, writing and reading of modern standard Chinese. Throughout the course, mastery of conversational skills will be reinforced through oral-aural practice and at the same time, increased emphasis will be placed on contemporary texts. By the end of the semester students will know around 400 Chinese characters and associated compounds.

Empires in World History
HIST 1108
3 units in Semester 1
Study commitment: three contact hours per week
Assessment: using Primary Sources 1 20%, Using Primary Sources 2 20%, Primary Sources for Empire 30%, Historical Knowledge and Understanding 30%
About the course: From the beginning of recorded history to the twentieth century, the world has been shaped by the rise and fall of empires. The purpose of this course is to explore how and why empires were constructed, how they were kept together, how rulers and the ruled interacted, and how and why empires disintegrated. Focusing on a series of studies, we shall draw wider conclusions about the nature of empires in world history. The scope of the course is global because we shall look at representative examples of European empires, Asian empires, and empires of the western hemisphere (such as Aztec). Not only will the course explore the political history of the empires, it will also deal with issues such as the role of women, and the impact of empire on language, art, culture, religion, the economy, the environment.
The course has three main objectives. Firstly, it provides an introduction to the study of history at university level. Students will receive training in the practice of history, for example, how to use primary and secondary sources and how to frame an historical argument. Secondly, the course furnishes students with an overview of the 'big picture' of world history across the last 1,500 years. Students will acquire essential contextual knowledge which will enrich their understanding of almost any subsequent course they take in history or the humanities. Thirdly, the course introduces students to civilisations that are quite different and in some ways alien to our own, and yet which in many ways are similar. In our interconnected world, an understanding of the historical roots of different cultures is a prerequisite for global citizenship.
French IA: Beginners’ French
FREN 1002
3 units in Semester 1
Study commitment: up to five hours per week
Assessment: regular assignments, tests and written exam
About the course: This course introduces students to the language and culture of contemporary France. In addition to intensive language training in the four basic skills - listening, speaking, reading and writing - various aspects of French society and culture will be introduced through audio and video extracts and short texts. The emphasis throughout will be on communicative skill, both oral and written.

French IB: Beginners’ French
FREN 1003
3 units in Semester 2
Study commitment: up to five hours per week
Prerequisites: FREN 1002
Assessment: regular assignments, tests and written exam
About the course: This course continues the intensive language training undertaken in French IA.

French ISA/ISB: Language and Culture
FREN 1001/FREN 1102
3 units each in Semesters 1 and 2
Study commitment: five contact hours per week
Prerequisites: FREN 1011 must be successfully completed prior to enrolment in FREN 1012.
Assessment: regular tests, language assignments, essays and language exam
About the courses
> French ISA: This course is designed for students who have studied French at high school to Year 12 level (or equivalent). It reviews and extends the language skills already acquired and develops reading and research skills in the area of French culture. This year, the culture component of the course is ‘La France contemporaine’ (contemporary French society and culture). See French Department handbook for more details.

> French ISB: This course continues the intensive language training undertaken in French ISA. Students will also continue to develop critical and analytic skills through the study of French culture. This year, the culture topic for study is entitled ‘Du texte à l’écran’ (the study of stories and their screen adaptations). See French Department handbook for more details.

German IA: Beginners’ German
GERM 1002
3 units in Semester 1
Study commitment: up to four hours per week
Assessment: regular assessments, tests, end of semester test and oral exam
About the courses: This course introduces students to the language and culture of contemporary Germany. It provides intensive language training in the four basic skills - listening, speaking, reading and writing - and introduces students to relevant aspects of German culture and society.

German IB: Beginners’ German
GERM 1003
3 units in Semester 2
Study commitment: up to four hours per week
Prerequisites: GERM 1002 or equivalent
Assessment: regular assessments, tests, end of semester test and oral exam
About the courses: This second semester course is a sequel to German IA: Beginners’ German. It continues the intensive language training undertaken in German IA. Aspects of German culture will again form an integral part of language instruction throughout the semester.

German IIA: Language
GERM 2203
3 units in Semester 1
Study commitment: up to three hours per week
Prerequisites: GERM 1003 or equivalent, new SACE Stage 2 Continuers’ German with a scaled grade of B or higher or equivalent
Assessment: regular assessments, tests, end of semester test, conversation tutorial (participation, performance, oral exam or equivalent)
About the courses: This course provides a practical base for introducing students to the variety of Australian Aboriginal peoples, country and protocols. The focus will be on South Australia with the intent that what students learn in this environment will equip them with a protocols foundation for working with Indigenous peoples from elsewhere in Australia. An important learning outcome for students will be gaining knowledge on the intrinsic importance of country/land, the environment kin and identity for Indigenous people. Students may visit a key site on Kaurna country such as the cultural trail along the river Torrens. Students will also visit sites such as the South Australian Museum, the Art Gallery of South Australia, the Martlock Library or Tandanya Cultural Institute in order to assess, analyse and explore the differences and juxtaposition on how Indigenous Knowledges, relationships, cultures and people are represented by State institutions or Indigenous organisations. Indigenous elders, storytellers, performance and academics will teach students by providing knowledge of the Indigenous relationships and responsibilities that are intrinsic to successful communication and activities with Aboriginal people. Obtaining these skills will enhance their future employment in Indigenous sectors.
Introduction to English: Ideas of the Real
ENGL 1101
3 units in Semester 1
Study commitment: three contact hours per week
Assessment: assignment, research essay, examination
About the course: This course introduces students to a range of texts written in the English language and selected from the previous two centuries. Each text illustrates different understandings of what constitutes ‘the real’ and which literary techniques best represent it. The course examines a variety of genres including novels, short stories and poetry. Students are introduced to a range of interpretive practices, and the course is designed to increase their skills in literary and critical analysis, writing and research.

Introduction to International Relations
POLIS 1102
3 units in Semester 2
Study commitment: up to three hours per week
Available for Non-Award Study
Incompatible: POLI 1102
Assessment: tutorial work 20%, 2 x Class tests 20% each, Research essay 40%
About the course: This course provides a comprehensive introduction to international relations, focusing in particular on its origins and historical evolution, its key concepts, major theoretical frameworks, main actors and institutions, the global architecture of power, and its dynamic nature in the process of globalisation. More specifically, the course introduces concepts of power, statecraft, diplomacy, foreign policy, political economy and international security, and examines the evolution of international relations in the 20th and 21st centuries.

The course combines the study of concepts and theories with a range of enduring questions, including: Why bother with theory? How did a fragmented world become a global system of states? What factors most influence the foreign policy of states? Why is war a persistent feature of international relations? Can the state overcome the challenges to its authority from non-state actors? How do politics shape the global economy? Is free trade the solution to global poverty? How does the natural environment influence international relations? Will the international system undergo a fundamental change in the future? What are the main global threats of the 21st century?

Introduction to Politics
POLIS 1105
3 units in Semester 1
Study commitment: three contact hours per week
Assessment: small group discovery experience and participation 30%, tutorial workbook (1200 words) 30%, essay (1500 words) 40%
About the course: Do you want to better understand what is at stake when people debate the question of what is a good society? Do you want to have a deeper knowledge of why people disagree about how society should be organised? The aim of this course is to enable students to better understand public debates about the distribution of power in democratic societies like Australia, and hence be able to reflect upon their own views. These public debates rest upon a number of key concepts employed in socio-political thought today. Such key concepts are very widely employed not only in the work of a range of scholars and other analysts but by media commentators, politicians and public policymakers. They are crucial to understanding what is going on in debates on problems as varied as human nature, power, individual freedom, national identity, censorship, human rights, equality, social justice and group marginalisation, community, citizenship, work/life dilemmas, colonialism, civil liberties and social protest, amongst many others. This course will consider liberal-democratic societies and their major actors and institutions in order to develop a concrete and practical understanding of key concepts in socio-political analysis.

Japanese IA
JAPN 1001
3 units in Semester 1
Study commitment: up to four hours per week
Prerequisites: No assumed knowledge of Japanese is required. This course is for (total) beginners with little or no previous knowledge of Japanese.
Assessment: continuous assessment and exam(s)
About the course: Japanese IA: Beginner is designed for students with little or no previous knowledge of Japanese. If you already know hiragana, katakana and approximately 60 basic kanji, you are advised to enrol in Japanese IB. This course offers instruction and practice in the four skills of reading, writing, listening and speaking, while introducing the basic grammar and vocabulary of modern Japanese as well as the basic writing system, hiragana, katakana and beginners kanji. In classes, emphasis will be placed on students’ basic communication skills in both spoken and written Japanese to build a solid foundation at the beginner level. The aims of the course are: i) to enhance and consolidate the introductory grammar; ii) to expand knowledge of vocabulary in both conversational and written contexts; iii) to develop communication skills/strategies; iv) to become familiar with hiragana, katakana and basic kanji; v) to become efficient and independent language learners.
If you have completed Year 12 SACE Beginners/Continuers Japanese at high school or any equivalent study overseas, you are not eligible to enrol in this course.
Entry criteria for students with Year 12 SACE grades can be found at: arts.adelaide.edu.au/asian/study/language/

Japanese IB
JAPN 1002
3 units in Semester 2
Study commitment: up to four hours per week
Prerequisites: JAPN 1001 or equivalent
Assessment: continuous assessment and exam(s)
About the course: Japanese IB course continues instruction and practice in the four skills of reading, writing, listening and speaking, whilst enabling students to broaden and consolidate their basic knowledge of the Japanese language acquired in Japanese IA. In order to provide a solid foundation at the beginner level in both written and spoken Japanese, literacy skills will be emphasised to further develop the elementary level, and communication skills will be reinforced through aural-oral practice in classes.

The basic aims of Japanese IB are: i) to enhance and consolidate the introductory grammar; ii) to expand knowledge and use of vocabulary in both conversational and written contexts; iii) to develop communication skills/strategies; iv) to become familiar with new kanji; v) to become efficient and independent language learners.
If you have completed Year 12 SACE Continuers Japanese at high school or any equivalent study overseas, you are not eligible to enrol in this course.
Entry criteria for students with Year 12 SACE grades can be found at: arts.adelaide.edu.au/asian/study/language/
Morality, Society and the Individual
PHIL 1103
3 units in Semester 2
Study commitment: up to three hours per week
Assessment: reading summary (800 words) 10%, essay 1 (1,500 words) 35%, essay 2 + online quizzes (1,500 words) 35%, online quizzes 10%, tutorial attendance 10%
About the course: Morality plays a part in everyone’s life. But what exactly is it, and why is it important? Are there any objective, universal moral truths, or are moral rightness and wrongness in some way relative to societies, or to individuals? Can morality be grounded in religion, or in facts about human nature? This course will ask what constraints a society is morally entitled to impose on its individual members, and what kinds of freedom from interference individuals are entitled to claim from their society. It will also ask how it is possible that anything really matters, if the universe does not itself have a purpose. The course will introduce you to some of the most influential answers that philosophers have given to these questions, and to the arguments they have used to defend their views. But its main aim is to help you to answer them clearly for yourself.

Music Technology Foundations
MUSONIC 1000
3 units in Semester 1 or 2
Study commitment: up to four hours per week
Assessment: assignment, exam, project
About the course: The field of music technology involves the artistic and technical application of technology in the creation and performance of music. This course will develop a theoretical and practical understanding of music technology fundamentals including sound, audio, and MIDI. This will be achieved by theoretically and practically exploring the field of music technology through lectures, tutorials and workshops. In particular, students will: examine a range of areas such as basic sound recording, audio and MIDI editing, sequencing, processing and production, synthesis and sampling, effects and mixing, and graphical programming; complete readings and listenings; and perform practical exercises that promote investigative learning and research.
The course has the following learning objectives: develop practical skills using a range of core music and sound software and hardware; provide a comprehensive understanding of the theory behind a range of music technologies; develop and expand creative and technical practice in music and music technology with a view to develop lifelong learning.

Revolutions that Changed the World
HIST 1109
3 units in Semester 2
Study commitment: three contact hours per week
Assessment: Using Secondary Sources 1 20%, Using Secondary Sources 2 20%, Group Activity 30%, Historical Knowledge and Understanding 30%
About the course: This course will look at some of the great ‘turning points’ of history that have shaped the world in which we live. This might include the Renaissance and Reformation of the fifteenth and sixteenth centuries, the ‘Scientific Revolution’ of the seventeenth and eighteenth centuries, the Industrial Revolution of the nineteenth century, the ‘Sexual Revolution’ of the twentieth century, as well as great political revolutions such as the American, French, Russian and Chinese. Students will actively engage with the central question of why human history in the last 500 years has witnessed periods of profound transformation. Were they driven primarily by technological and economic developments, or were new ideas and philosophies the most important agents of rapid historical change? What role was played in these transformations by individuals and by governments? What exactly do we mean by the term ‘revolution’, and how legitimately can the word be applied to the events that we cover in this course?
This course has three main objectives. Firstly, it will ask students to engage with some of the most important debates about the factors that led to rapid historical change. Secondly, the course furnishes students with an overview of the ‘big picture’ of world history across the last 500 years. Students will acquire essential contextual knowledge which will enrich their understanding of almost any subsequent course they take in history or the humanities. Thirdly, the course will facilitate students’ understanding of the world in which they live by exploring some of the key developments that have shaped our common history. The course allows for insights into our own rapidly changing era by exploring other revolutionary episodes in our past. Note: this course is very different from the ‘revolutions’ component of SACE.

Understanding Criminology
CRIM 1001
3 units in Semester 1
Study commitment: up to three hours per week
Assessment: online test 20%, essay 40%, take home exam 40%
About the course: This course offers an introduction to the field of criminology by examining the nature of crime as well as exploring the main social theories that seek to explain why people commit crime. While the first part of the course briefly introduces the concept of crime, its social construction and various representations, the second component covers an array of broadly sociological arguments concerning possible explanations as to why crimes are committed, and how certain “deviant” acts become problematized. Topics covered in this latter section include criminological arguments drawing on Classicism, Biological and Psychological Positivism, Sociological Positivism, The Chicago School and Subcultural Theories, Interactionism and Labelling, Social Control Theories, Radical and Critical Perspectives, Realist Approaches, Contemporary Classicism and Feminism. Ultimately the question is posed whether the insights offered into the varied motivations to commit crime are practically useful in its prevention or reduction.
Introduction to Management I
COMMGM 1001
3 units in Semester 1 or 2
Study commitment: up to 3 hours per week
Assessment: exam, assignments, tests and tutorial work as prescribed at first lecture
About the course: This course introduces students to the roles and functions of managers. The content includes an introduction to organisations and the need for and nature of management. It examines the evolution of management theory, organisational environments, and corporate social responsibility and ethics. The course also includes a detailed investigation of the four functions of management: planning and decision making, organising, leading and motivating, and controlling.

Introduction to Marketing I
MARKETING 1001
3 units in Semester 1 or 2
Study commitment: up to 3 hours per week
Assessment: exam, assignments, tests and tutorial work as prescribed at first lecture.
About the course: This course is designed to provide students with an understanding of the principles of Marketing. There will be a focus on the management of the marketing activities and how marketing relates to overall organisational functioning, including the management of exchange processes between business units and consumers and between firms. It will include topics such as environmental analysis, industry and competitor analysis, objective setting, marketing strategies, market mix components, and finally implementation and control mechanisms. Additionally, the course will provide opportunities for the practical implementation of the concepts covered and the development of problem solving skills by means of face-to-face seminars and tutorials, online learning and a marketing practice simulation.
Introduction to Programming
COMP SCI 1101
3 units in Semester 1 or 2
Study commitment: up to six hours per week
Assumed knowledge: SACE Stage 1 Mathematics or equivalent
*SACE Stage 2 Mathematical Methods (known as Mathematical Studies if undertaken prior to 2017) is a prerequisite for entry to the Bachelor of Computer Science and may be studied concurrently.
Assessment: written exam and assignments
About the course: This course is designed for students with no prior programming experience. It introduces the fundamental concepts of procedural programming. Students who have experience in procedural programming languages may consider taking COMP SCI 1102 Object Oriented Programming instead.
Topics include data types, control structures, functions, arrays, files, and the mechanics of running, testing and debugging. The course also offers an introduction to the historical and social context of computing and an overview of computer science as a discipline.

> Algorithms and problem-solving: problem-solving strategies; the role of algorithms in the problem-solving process; implementation strategies for algorithms; debugging strategies; the concept and properties of algorithms
> Fundamental programming constructs: syntax and semantics of a higher-level language; variables, types, expressions, and assignment; simple I/O: conditional and iterative control structures; functions and parameter passing; structured decomposition
> Fundamental data structures: primitive types; arrays; records; strings and string processing
> Software development methodology: fundamental design concepts and principles; testing and debugging strategies; test-case design (black box testing and requirements testing); unit testing; programming environments
> Human-computer interaction: introduction to design issues
> Social context of computing: history of computing and computers; evolution of ideas and machines; social impact of computers and the Internet; professionalism, codes of ethics, and responsible conduct; copyrights, intellectual property, and software piracy

Object Oriented Programming
COMP SCI 1102
3 units in Semester 1 or 2
Study commitment: up to six hours per week
Assumed knowledge: SACE Stage 1 Mathematics or equivalent
*SACE Stage 2 Mathematical Methods (known as Mathematical Studies if undertaken prior to 2017) is a prerequisite for entry to the Bachelor of Computer Science and may be studied concurrently.
Assessment: written exam and assignments
About the course: This course introduces the concepts of object-oriented programming to students with a background in the procedural paradigm. It is designed as an entry-level programming course for students who have prior programming experience. Students who do not have prior programming experience or who are not confident in their programming ability should complete COMP SCI 1101 Introduction to Programming prior to undertaking this course.
The course begins with a brief review of control structures and data types with emphasis on structured data types and array processing. It then moves on to introduce the object-oriented programming paradigm, focusing on the definition and use of classes along with the fundamentals of object-oriented design.
Topics include an overview of programming language principles, simple analysis of algorithms, basic searching and sorting techniques, and an introduction to software engineering issues, plus a brief review of control structures, functions, and primitive data types.
Curriculum:
> Object-oriented programming: object-oriented design; encapsulation and information-hiding; separation of behaviour and implementation; classes, subclasses, and inheritance; polymorphism; class hierarchies
> Fundamental computing algorithms: simple searching and sorting algorithms (linear and binary search, selection and insertion sort)
> Fundamentals of event-driven programming
> Machine level representation of data: bits, bytes, and words; numeric data representation and number bases; representation of character data
> Introduction to computer graphics: using a simple graphics API
> Memory management
> Overview of programming languages: history of programming languages; brief survey of programming paradigms
> Introduction to language translation: comparison of interpreters and compilers; language translation phases; machine-dependent and machine-independent aspects of translation
Business and Economic Statistics I  
**ECON 1008**  
3 units in Semester 1 or 2  
Study commitment: up to four hours per week  
Assessment: typically tutorial participation and/or exercises, assignments, tests and final exam  
About the course: Business and Economics Statistics I introduces the essential concepts, tools and methods of statistics for students in business, economics and similar disciplines, while also having relevant applications in other areas of study. It aims to help students develop the understanding they will need to make informed decisions from analysing data, and to communicate the results effectively. The course covers two main branches of statistics: descriptive statistics and inferential statistics. Descriptive statistics includes collecting data and summarising and interpreting them through numerical and graphical techniques. Inferential statistics includes selecting and applying the correct statistical technique in order to make estimates or test claims about a population based on a sample. The course focuses on concepts, reasoning, interpretation and thinking rather than computation, formulae and theory. Coursework will require students to write effectively and communicate their ideas with clarity. Topics covered may include descriptive statistics, correlation and simple regression, probability, point and interval estimation, hypothesis testing, multiple regression, time series analysis and index numbers. By the end of this course, students should understand and know how to use statistics. Students will also develop some understanding of the limitations of statistical inference and of the ethics of data analysis and statistics. Students will work in small groups in this course; this will develop the skills required to work effectively and inclusively in groups, as in a real work environment. Typically, one component of the assessment requires students to work in teams and collect and analyse data in order to answer a real-world problem of their own choosing.

International Financial Institutions and Markets I  
**ECON 1009**  
3 units in Semester 1 or 2  
Study commitment: two lectures and one tutorial per week  
Assessment: typically tutorial participation, written assignments, mid-semester exam, optional group assignment and final exam  
About the course: This course provides an introduction to the institutions, markets and securities that form the basis of modern financial and monetary systems. Australian and international economies, and their financial systems, will be considered with reference to current financial news and affairs. This course also introduces some of the main theories and quantitative concepts and methods used in finance and provides a sound basis for students progressing to the study of finance at higher levels within the University. At the same time, it is a valuable, self-contained and up-to-date overview of international financial markets and institutions for non-specialists.

Introduction to Mathematical Economics (Basic) I  
**ECON 1008**  
3 units in Semester 1  
Study commitment: up to five hours per week  
Assessment: typically tutorial work, mid-semester test and final exam  
About the course: The course is intended for students without sufficient SACE Stage 2 Maths who wish to obtain knowledge of mathematical techniques suitable for economic analysis. It assumes very little prerequisite knowledge. The approach is informal and aims to show students how to do and apply the mathematics they require for a successful study of economics. Economic applications are considered although this course aims to teach the mathematics not the economics. Topics include:  
- basic algebra  
- simple finance  
- calculus  
- matrix algebra.

Principles of Economics I  
**ECON 1012**  
3 units in Semester 1 or 2  
Study commitment: two lectures and one tutorial per week  
Assessment: typically, tutorial assignments, online learning activity and final exam  
About the course: This course provides an introduction to a broad range of economic concepts, theories and analytical techniques. It considers both microeconomics - the analysis of choices made by individual decision making units (household and firms) - and macroeconomics - the analysis of the economy as a whole. The use of the market, supply and demand, model will be the fundamental model in which trade-offs and choices will be considered through comparison of costs and benefits of actions. Production and market structure will be analysed at the firm level. Macroeconomic issues regarding the interaction of goods and services markets, labour and money at an aggregate level will be modelled. The role of government policy to address microeconomic market failures and macroeconomic objectives will be examined.
Health and Medical Sciences

Human Biology 1A
ANAT SC 1102
3 units in Semester 1
Study commitment: three one-hour lectures and one tutorial per week, plus a one-hour practical per fortnight.
Assessment: research-based assessment tasks, online quizzes, MCQ tests, and an end of semester examination.
About the course: Human Biology is the study of human anatomy and physiology. This course investigates the relationships between normal structure and function in human cells, tissues, organs and systems.
The course materials are organised into the following modules:
> cells
> epithelial and connective tissues, and skin
> bone, joints and muscle
> nervous system
> endocrine systems
> reproductive systems

Human Biology 1B
ANAT SC 1103
3 units in Semester 2
Study commitment: three one-hour lectures and one tutorial per week, plus a one-hour practical per fortnight.
Prerequisites: none, but ANAT SC 1102 Human Biology IA is assumed knowledge
Assessment: research-based assessment tasks, online quizzes, MCQ tests and an end of semester examination.
About the course: Human biology is the study of human anatomy and physiology. This course investigates the relationships between normal structure and function in human cells, tissues, organs and systems.
The course materials are organised into the following modules:
> cardiovascular system
> respiratory system
> digestive system
> metabolism and nutrition
> urinary system
> immune system
> microbiology and virology

Health and Illness in Populations
PUB HLTH 1001
3 units in Semester 1
Study commitment: two on-hour lectures, one practical and one tutorial per week.
Assessment: written assignments, online quizzes, participation, and an end-of-semester exam.
About the course: Health and Illness in Populations aims to introduce students interested in health sciences careers such as public health practice, health-related research, or clinical practice, to a population view of health. It draws on a range of disciplines that contribute to a focus on the health of populations, including epidemiology, health promotion and disease prevention, history, politics, and ethics. The course invites students to develop a critical view about what constitutes public health issues, how they are measured, and potential responses to improve population health.
Mathematics

Mathematics IA/IB
MATHS 1011/MATHS 1012
3 units each in Semesters 1 and 2
Study commitment: up to 5.5 hours per week
Prerequisites: Applicants must have a grade of at least A in both SACE Stage 2 Mathematical Methods* and Specialist Mathematics. MATHS 1011 Mathematics IA must be successfully completed prior to enrolment in MATHS 1012.
*If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.
Assessment: ongoing assessment 30% and exam 70%
About the courses: These courses provide an introduction to the basic concepts and techniques of calculus and linear algebra, emphasising their interrelationships and applications to engineering, the sciences and financial areas; introduces students to the use of computers in mathematics; and develops problem solving skills with both theoretical and practical problems.
Mathematics IA topics include:
> Calculus: Functions of one variable, differentiation and its applications, the definite integral, techniques of integration.
Mathematics IB topics include:
> Calculus: Differential equations, sequences and series, power series, calculus in two variables.
> Algebra: Subspaces, rank theorem, linear transformations, orthogonality, eigenvalues and eigenvectors, singular value decomposition, applications.

Psychology

Psychology IA/IB
PSYCHOL 1000/PSYCHOL 1001
3 units each in Semesters 1 and 2
Study commitment: one workshop per week.
Lectures will be available online.
Assessment: module assessment exercises, research evaluation assignment, research participation, online study exercises, multiple choice exam
About the courses: These courses provide an introduction to the basic concepts and core topics within contemporary psychology. The two courses may be taken singularly or in combination.
Core topics covered over the year include:
> the development of the individual over the lifespan
> the study of the person in a social context
> differences between people with respect to their intelligence and personality
> issues related to individual adjustment and maladjustment
> the biological bases of behaviour
> the interpretation by the brain of sensory signals from the external environment
> the mechanisms underlying learning
> the encoding, storage and retrieval of information
> the nature of motivation and emotion
> culture and cross-cultural psychology.
The courses will also provide an introduction to the methodological approaches employed by psychologists to study these topics. Major findings to emerge from psychological research will be presented, and the practical significance of such work will be discussed. Practical work will address the conventions of psychological report writing and the ethical principals underlying psychological research and practice.

Research Methods in Psychology
PSYCHOL 1004
3 units in Semester 2
Study commitment: up to two hours per week
Assessment: short answer major assignment, multiple choice exam
About the course: This course introduces students to the basic principles of research methods in Psychology. The focus of the course is on students learning how to do research in psychology, with an emphasis on student-centred activities and problem solving.
Students will learn about such key concepts as:
> the scientific method
> operationalising constructs
> independent and dependent variables
> data types and ways of measurement
> confounding variables
> experimental and non-experimental design
> questionnaire construction
> developing and testing hypotheses
> descriptive statistics and describing data graphically
> the ethics of research.
Biology I: Molecules, Genes and Cells
BIOLOGY 1101
3 units in Semester 1
Study commitment: two one-hour lectures, one-hour workshop per week, plus three-hour practical per fortnight.
Assumed knowledge: SACE Stage 1 Biology and/or Chemistry
Assessment: end of semester exam, MCQ and theory tests and practical assessment.
About the course: The study of biology covers an incredibly wide range of themes; from simple molecules, cells, organelles and tissues to whole organisms and their interaction with the environment and their ability to evolve. The aim of this course is to introduce many of these concepts, thereby providing the foundation for further studies in Semester 2 courses and more specialist level II/III courses.
Topics to be covered include:
> the chemicals of life
> macromolecules
> the role of nucleic acids in genetic information transfer
> protein synthesis
> lipid membranes and the structure of cells
> storage and utilisation of energy
> meiosis and mitosis.

Biology I: Human Perspectives
BIOLOGY 1201
3 units in Semester 2
Study commitment: three-one-hour lectures per week, and four two-hour practicals per semester.
Assumed knowledge: BIOLOGY 1101
Assessment: end of semester exam, theory tests, practical assessment and group research project.
About the course: This course builds on fundamentals of biology that have been developed in Molecules, Genes and Cells. The course takes molecular, cellular, whole body, population and evolutionary approaches to understanding biology as it pertains to human function and the interactions of the body with the environment. In many cases, our understanding of human function is best derived for studies of mammalian and non-mammalian organisms, and where appropriate, such models will be discussed.
The themes that will be covered include:
> the organisation of the body
> evolution
> inheritance
> regulation of gene expression
> communication and control systems in the body
> developmental biology
> defence systems.
Sessions, which provide opportunities to integrate the information and demonstrate how it provides an understanding of normal human function and of disease, will be a regular feature of the course.

Biology I: Organisms
BIOLOGY 1202
3 units in Semester 2
Study commitment: three one-hour lectures per week and three-hour practical per fortnight.
Assumed knowledge: BIOLOGY 1101 or BIOLOGY 1102
Assessment: exam, assignments and practical reports
About the course: This course focuses on the biology and diversity of multi-cellular organisms, with evolution as the central theme. It addresses key questions in biology: What are plants and animals? How do they evolve? How do they function? How do they interact with other organisms and the environment? These questions are answered by analysing the scientific evidence that supports current theory.

Chemistry IA
CHEM 1100
3 units in Semester 1
Study commitment: three one-hour lectures, a one-hour workshop per week and six three-hour practicals
Prerequisites: SACE Stage 2 Chemistry with a Subject Achievement grade of at least A-(or equivalent)
Assessment: exam, practical work, computer assessed assignments and lecture tests.
Topics include:
> acids, bases and electrochemistry: aspects of acid/base equilibria and electrochemical processes
> structure determination: the importance of molecular shape and how chemists determine the structure of compounds using spectroscopic techniques including ultraviolet, infrared and nuclear magnetic resonance spectroscopy
> synthetic and bio-organic chemistry: an introduction to chemical synthesis with particular reference to addition and substitution reactions. Strategies for synthesis and properties of biologically significant molecules will also be addressed.

Earth’s Interior I
GEOLOGY 1100
3 units in Semester 2
Study commitment: three one-hour lectures and three-hour practical per week plus one field trip
Assessment: lecture tests and practical work
About the course: This course provides a global perspective of planet Earth and the dynamic processes that have modified it over its four billion-year history. We explore Earth’s place in space and time and examine the operation of its internal chemical and physical processes.
Fundamental concepts are developed, including:
> the formation and structure of the Earth
> the driving forces of plate tectonics and continental drift
> earthquakes and volcanoes, the formation and identification of geological materials, mountain building and rock deformation
> the development of the geologic timescale. Emphasis is given to the geological evolution of Australia.
Earth Systems  
GEOLOGY 1103  
3 units in Semester 1  
Study commitment: three one-hour lectures and three-hour practical per week plus one field trip  
Assessment: lecture tests and practical work  
About the course: This course draws from all fields of geoscience to explore the evolution of Planet Earth. Topics include:  
> the evolution of the solar system and the solid earth, the concept of deep time  
> the plate tectonic theory, in which the Earth’s plates are colliding, generating earthquakes, volcanoes and mountain belts  
> the evolution of Earth’s atmosphere and oceans  
> the Earth’s climate, including the Earth in space, hydrologic cycle, the carbon cycle and the ‘greenhouse effect’  
> the development and future of our unique Australian landscape and resources.

Physics IA  
PHYSICS 1100  
3 units in Semester 1  
Study commitment: three one-hour lectures and a one-hour workshop per week, plus five three-hour practicals  
Prerequisites: minimum A- in SACE Stage 2 Physics and A in SACE Stage 2 Mathematical Methods* and Specialist Maths.  
*If Stage 2 studies were undertaken prior to 2017, the equivalent subject was known as Mathematical Studies.  
Corequisite: Students undertaking Physics IA are required to enrol in Mathematics IA concurrently.  
Assessment: written exam, workshop tests and practical work  
About the course: This calculus-based course is the foundation for a major in physics, and also provides a quantitative understanding of physics concepts applicable in biological and geological sciences, and in engineering. Topics include:  
> measurement and uncertainties  
> particle mechanics: Newton’s law of motion, gravitation, work, energy, conservative forces, momentum, collisions  
> thermal physics: heat, temperature, internal energy, kinetic theory of gases, thermodynamic processes  
> electricity and magnetism: charge and current, electric field, Ohm’s Law, DC circuits, Coulomb and Gauss’ laws, electrostatics, capacitance, magnetic field, Ampere and Faraday’s laws, inductance, LC circuits  
> practical problem-solving.

Physics IB  
PHYSICS 1200  
3 units in Semester 2  
Study commitment: three one-hour lectures and one-hour tutorial per week, plus five three-hour practicals  
Prerequisites: PHYSICS 1100 Physics IA  
Corequisites: Students undertaking Physics IB are required to enrol in MATHS 1012 Mathematics IB concurrently.  
Assumed knowledge: MATHS 1011 and PHYSICS 1100  
Assessment: written exam, tutorial work and practical work  
About the course: This calculus-based course completes the Level I sequence for a major in physics, and also provides a quantitative understanding of physics concepts applicable in biological and geological sciences and in engineering. Topics include:  
> rigid body mechanics: centre of mass, rotational motion, torque, angular momentum, equilibrium, oscillations  
> waves and optics: transverse and longitudinal waves, superposition, interference, standing waves, Fourier decomposition, Fermat’s principle, geometric optics, physical optics, interference, Michelson interferometers, thin film interference, diffraction, resolution of telescopes  
> relativity and quantum physics: kinematics, time dilation, length contraction, Lorentz transformations, transformation of velocities, relativistic momentum and energy, X-rays as waves and photons, photoelectric and Compton effects, pair production, de Broglie waves, uncertainty principle, the quantum mechanical wave function  
> practical problem-solving.
Before applying to the Headstart scholarship program, all applicants must thoroughly read this brochure and ensure they meet the eligibility criteria (see page 3).

Students who are completing Year 12 with less than a full year’s workload are encouraged to submit an application. Places within the program are limited and entry is competitive, therefore, each application will be assessed on merit. Only online application forms will be accepted.

Closing dates for applications:  
Semester 1: Monday 5 February 2018  
Semester 2: Monday 9 July 2018

The online application form will require applicants to fill in the following information:

- Personal Details
- School Details
- List of SACE subjects completed
- Contact details of the applicants nominated mentor

In addition, applicants will be required to upload the following documents (Word or PDF):

- School Letter of Reference
- Personal Statement
- 2017 Academic Report (must include grades for all Year 11 and 12 subjects already completed)
- 2018 School Timetable (please ensure you indicate which classes you would withdraw from, if successfully offered a place in the Headstart program)
- Preferred university class times (must include class numbers, which can be obtained via Course Planner from 1 December)
- Under 18 Consent Form

Note: You will not be able to submit your application without the above documents.

All applicants will be notified of the outcome by Friday 16 February (Semester 1) or Friday 20 July (Semester 2). This two week period allows time for consultation, admission, enrolment and orientation preparation.

Further information

Any queries about your application should be directed to Alice Cameron
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