



# UNIVERSITY SENIOR COLLEGE CURRICULUM HANDBOOK

**CONTENTS**

<b>Principal's Welcome</b>	<b>4</b>	<b>Stage 2 Subjects (Year 12)</b>	<b>21</b>
<b>Curriculum</b>	<b>5</b>	<b>Arts</b>	<b>22</b>
<b>Timetable</b>	<b>6</b>	Drama	22
<b>Hybrid and Headstart Programs</b>	<b>6</b>	Musicianship	22
<b>Stage 1 Subjects (Year 11)</b>	<b>7</b>	Solo Performance	22
<b>Arts</b>	<b>8</b>	Visual Arts - Art	23
Drama	8	Visual Arts - Design	23
Music	8	<b>Business, Enterprise, and Technology</b>	<b>24</b>
Visual Arts - Art	9	Accounting	24
Visual Arts - Design	9	<b>English</b>	<b>24</b>
<b>Business, Enterprise, and Technology</b>	<b>10</b>	English Literary Studies	24
Accounting	10	English	25
Business and Innovation	10	English as an Additional Language	25
<b>Cross-Disciplinary</b>	<b>11</b>	<b>Humanities and Social Sciences</b>	<b>25</b>
Personal Learning Plan	11	Ancient Studies	25
Research Project	12	Australian and International Politics	26
<b>English</b>	<b>12</b>	Economics	27
English	12	Modern History	27
English as an Additional Language	13	Legal Studies	28
<b>Humanities and Social Sciences</b>	<b>13</b>	<b>Languages</b>	<b>28</b>
Ancient Studies	13	Chinese (Background Speakers)	28
Australian and International Politics	14	<b>Mathematics</b>	<b>28</b>
Economics	14	Mathematical Methods	28
Geography	14	General Mathematics	29
Modern History	15	Specialist Mathematics	30
Legal Studies	15	<b>Sciences</b>	<b>30</b>
<b>Languages</b>	<b>16</b>	Biology	30
Chinese (Background Speakers)	16	Chemistry	31
<b>Mathematics</b>	<b>16</b>	Physics	32
Mathematical Methods	16	Psychology	32
General Mathematics	16	<b>USC Mission</b>	<b>34</b>
Specialist Mathematics	17	<b>USC Graduate Attributes</b>	<b>34</b>
<b>Sciences</b>	<b>18</b>	<b>USC Aspirations</b>	<b>34</b>
Biology	18	<b>USC Values</b>	<b>34</b>
Chemistry	18		
Physics	19		
Psychology	19		
Scientific Studies	19		



## PRINCIPAL'S WELCOME

At University Senior College we are passionate about supporting students to become independent, confident and resilient young people. Our aim is to inspire, empower and nurture lifelong learning in all our students.

This Curriculum Handbook is designed to guide you in your curriculum choices as you move into your final years of senior secondary school. Select those subjects that will allow you to deepen your learning and ensure you have the background knowledge which leads to your chosen tertiary pathway. We are committed to ensure your course suits your needs, while it prepares you for your future.

I encourage you to be mindful of your personal strengths, past achievements and successes and build upon those. At the same time, challenge and apply yourself to the best of your ability. By doing this, you are more likely to reach your destination.

Our programs are designed to assist you to develop the knowledge, skills and abilities for life beyond school and our graduates leave USC equipped to face the excitement of tertiary education and life in general.

Best wishes

**Anita Zocchi**  
Principal



## CURRICULUM

The USC curriculum is structured to provide an excellent preparation for university study, with a particular focus on preparing students for courses at the University of Adelaide, recognising the unique partnership between University Senior College and the University of Adelaide. Naturally the subject choices offered at our school also prepare our students for courses at other universities here in South Australia, interstate and overseas.

We have interpreted the SACE curriculum so that students with high academic aspirations, are challenged by academic rigor which prepares them for entry into university. The learning program at the College is enriched by the staff making use of the rich array of learning resources in the precinct. These resources include the South Australian Museum and Art Gallery, Parliament House and naturally the facilities of the University of Adelaide. Our students have undergraduate borrowing rights to the Barr Smith Library and access to the University's very extensive computer network, including the MyUni Learning Management System.

At USC there are few interruptions to the academic program, allowing students to develop those routines which are so important to a quality learning experience. Complementing the academic program is the Mentoring program, which provides guidance and support to assist our students to manage their own learning and develop personal and interpersonal skills that will assist them in life beyond senior secondary schooling. Recent research into student expectations and experiences when entering university has highlighted the importance of students developing an independent learning style and taking charge of their own learning.

While the SACE program provides a foundation for the curriculum, the expectations are raised in a number of ways. These are neatly packaged in our unique Partner's Pathway arrangement with the University of Adelaide. Through this pathway, the University has recognised our academically demanding program by offering places to students who engage and achieve effectively in our program.

At USC, most students undertake the compulsory Stage 2 (Year 12) subject, Research Project in the second semester of Year 11, which enables students to study 5 academic subjects in Year 12, rather than the 4 subjects generally undertaken at other schools. We strongly believe that undertaking 5 subjects at Stage 2 gives better preparation for success. Students learn to work at the level of intensity required for success at university. The expectation that most students undertake 5 subjects at Stage 2 at USC is to provide an experience that will better prepare them for the challenge of university study and ensure they engage in learning program that is balanced and assists them to meet university course pre-requisites. Our experience is that USC students with high academic aspirations readily cope with the workload of 5 subjects. We encourage students to take at least one language rich subject and at least one quantitative experimental subject in their choice of 5 subjects in Year 12. In our discussions with senior academic staff of the Engineering, Computer Mathematical Sciences Faculty of the university, it is clear that successful students communicate effectively, both verbally and in writing. Likewise, academics from the Humanities and Social Sciences faculty underline the importance of students who have experience with the deductive thinking required in mathematics and the sciences. Our curriculum and our counselling reflect this view. Restricting students to four Stage 2 subjects limits opportunities for a balanced Year 12 experience.

At USC, we see the opportunities to study a language other than English as being important. Given the great variety of languages studied by our students in middle school, catering for such a vast range is impossible. However, through cooperation with the School of Languages, it is possible for our students to study their chosen language off line, and have this recognised in their timetables.

We also see it as important that students who wish to continue their study of Music can do so, and we also provide a range of options within our Music program.



## TIMETABLE

The USC school day begins at 8.00am and on most days ends at 5.00pm. This extended day has the benefit of a flexible timetable structure, based upon two hour blocks. At Year 11, students have two 2 hour lessons in each subject, providing a great opportunity to engage with the subject in considerable depth. At Year 12, most subjects have 2 one hour lectures, delivered in the University's lecture theatres and one 2 hour tutorial. This structure provides both the opportunity to engage in the learning in a deep manner through the tutorials each week; it is also an excellent opportunity for students to prepare students for the transition towards a university style of learning and to become familiar and comfortable in the university environment.

Considerable support is given to students to develop the skill of managing their time as they undertake self-directed learning activities and there is a range resources available to support this learning. Resources include the Barr Smith library, the Hub and study spaces throughout USC. Students are also provided with opportunities to seek individual assistance with their learning and assignments from USC staff. Students are encouraged to make appointments with subject teachers to receive personalised support. In this way students are take responsibility for their own learning and are better prepared for tertiary study.

## HYBRD AND HEADSTART PROGRAMS

Our flexible timetable allows for students to undertake study at both Year 11 and 12. Students who may have been accelerated in their previous schools may be able to undertake study at the Year 12 level while in Year 11. For example, a number of students have taken Mathematical Methods, Specialist Mathematics, Biology and English during their Year 11.

The University of Adelaide offers access to some of its first year courses to students who have completed some Year 12 subjects through its Accelerated Headstart Program. Under this program, students undertake university subjects and subsequently, if they enrol in a relevant course at the University, will be given credit towards their degree.

USC is ideally situated to take advantage of the Headstart program, with students already on campus and operating on the same timetable. Each year we have students enrolled in various Headstart subjects. The Headstart program has been extended to the Headstart Studies Program, in which students can access certain courses and count them towards their ATAR score.

## STAGE 1 SUBJECTS - YEAR 11

### Students must complete:

- The Personal Learning Plan (PLP), which is usually completed in Year 10
- 20 credits (2 semesters) of English
- At least 10 credits (1 Semester) of Mathematics

Generally at Stage 1, students undertake a total of 120 credits which is equivalent to 12 single semester courses, each of 10 credits, in addition to the PLP. For those students who have not completed their PLP at their previous schools, we provide an opportunity for students to complete this off-line.

All students undertake 6 subjects in each semester. For most of our students, one of these 6 subjects in the second semester is the Research Project.

At Stage 1, a few subjects are offered as pairs of units, both of which are seen a prerequisites for Stage 2. Subjects in this category include Mathematical Methods, Specialist Mathematics, Physics, Chemistry and General Mathematics. However, most of the subjects offered at Year 11 are offered as single units. These provide the opportunity for students to try a range of subjects before making a commitment at Year 12.

At Year 11, our program involves formal examinations in each semester apart from the Personal Learning Plan (PLP) and the Research Project. We see the examination experience as an important aspect of our program. Undertaking Year 11 examinations is also a significant element contributing to the assessment process of our Partner's Pathway Program.

### ASSESSMENT & REPORTING

The assessment of Year 11 subjects is in line with SACE Board guidelines, with grades A – E, awarded on the basis of the Performance Standards as required by the SACE Board.

For the purposes of providing more detailed feedback at USC, school reports will be graded from A+ to C- and D & E.

At USC students are provided with a report, with copies given to their parents or guardians towards the end of each school term. Students are provided with a grade for all subjects and a record of their absences for the assessment period. At the end of Terms 2 and 4, students undertake examinations in their subjects and their report shows their grades along with their examination scores as a percentage.

As well as these reports, there are several Parent/Teacher/Student evenings, at which students, with their parents and teachers can discuss their progress. At all times, the College encourages students and their parents to discuss concerns about individual progress, initially through contact with the subject teacher or mentor and then with the relevant Dean.

### ARTS

- Drama
- Music
- Visual Arts - Art
- Visual Arts - Design

### BUSINESS, ENTERPRISE, AND TECHNOLOGY

- Accounting
- Business and Innovation

### CROSS-DISCIPLINARY

- Personal Learning Plan
- Research Project

### ENGLISH

- English
- English as an Additional Language

### HUMANITIES AND SOCIAL SCIENCES

- Ancient Studies
- Australian and International Politics
- Economics
- Geography
- Modern History
- Legal Studies

### LANGUAGES

- Chinese (Background Speakers)

### MATHEMATICS

- Mathematical Methods
- General Mathematics
- Specialist Mathematics\*

### SCIENCES

- Biology
- Chemistry\*
- Physics\*
- Psychology
- Scientific Studies

### Please note:

- \* These subjects must be studied for two semesters for continuation in Stage 2.
- Specialist Mathematics is only available if Mathematical Methods is also selected or has been completed previously.
- In total, a maximum of three selections of Art and/or Design can be made (i.e. a full year of Art and one semester of Design OR a full year of Design and one semester of Art).
- All other subjects can be selected once or twice depending on individual preference.

**ARTS****DRAMA**

10 or 20 Credits

**PREREQUISITES**

There are no formal prerequisites. It is assumed that students will have had some experience of middle school drama, or a whole-school production, or equivalent.

**WHERE DOES IT LEAD?**

Drama appeals to students with an interest in communication, performance, theatre and film. The subject is an ideal complement for students with a special interest in English, language and literature. Drama leads to a wide range of tertiary courses including law, architecture, medicine, media, professional acting, directing, designing, arts, international studies, media, creative arts, journalism, teaching, film, television, marketing and public relations. A key focus in the subject is the development of students to become skilled leaders as well as valuable team-players by providing enriching experiences of team project work – a feature of contemporary careers and professions. The course is academic and practical, emphasising the importance rigorous analysis skills and performance skills.

**WHAT IS IN THE COURSE?**

Drama is the art of engaging others through the relationship of presenter with audience. Acting, public speaking, directing, filmmaking, stage-managing, designing and reviewing are some of the key roles students undertake, and within the course they can specialise. Drama students create, analyse and discuss performance, as well as develop their own philosophy of art and ideas - an intriguing thread throughout the subject. Semester 1 focuses on presentation and analysis skills through a study of serious drama, comedy and dramatic texts. Semester 2 largely involves a major performance. The subject of Drama recognises that people are both rational and irrational beings, composed of intellectual, emotional and physical aspects. Drama aims to integrate these aspects, empowering students to refine their abilities as presenters of ideas, arguments and especially themselves.

**ASSESSMENT**

- Performance
- Presentation
- Analysis, Investigation and Advanced Writing Skills
- Examination

**MUSIC**

10 or 20 Credits

**PREREQUISITES**

Students need to have a basic knowledge of music theory (AMEB) or have completed Year 10 Music. Solo performance must be at Grade 3 AMEB level or equivalent. Students wishing to begin studies in Semester 2 must have completed Grade 3 AMEB Theory and have had at least 3 years of current instrumental tuition.

**WHERE DOES IT LEAD?**

Music offers students the opportunity to acquire and develop their creative and interpretive skills of music from a wide range of periods, styles and cultures. Not only does this prepare students for the study of music at the tertiary level, it also fosters qualities of confidence, self-discipline, imagination and self-expression.

**WHAT IS IN THE COURSE?**

Music aims to develop creative and expressive skills on the chosen instrument and develop related areas of knowledge in theory, history of music and aural skills. There are four main areas of content. The aural component develops aural acuity in the areas of melodic recognition and dictation, rhythmic dictation, intervals, scale recognition and chord and cadence identification. The theory component of the course covers a revision of AMEB Grades 1 and 2, followed by Grades 3 and 4. The Practical component enables students to extend and refine their skills of interpretation, technique and repertoire on their chosen instruments. Composing and Arranging and Music Technology, require a specialist teacher. Opportunities exist for involvement in ensemble work outside of the school. The History component surveys a range of periods from 1600 to the present day, exploring the place of the composer in society and the stylistic characteristics of music of the times. Four works are studied with respect to form, keys, modulations and melodic and rhythmic ideas. As well, other interesting composition techniques are discussed. The course also allows students to acquire skills in the area of music technology.

**ASSESSMENT**

- Skills Presentation
- Skills Development
- Folio
- Examination

**VISUAL ARTS - ART**

10 or 20 Credits

**WHERE DOES IT LEAD?**

The Visual Arts – Art course provides an excellent background for a wide range of tertiary courses and careers. Tertiary courses at local universities include Illustration, Animation, Creative Arts, Contemporary Art, Visual Art, Art history, Media Arts, Fashion Design, Fashion Illustration and teaching degrees.

**WHAT IS IN THE COURSE?**

Visual Art – Art introduces students to the development of ideas, experimentation with media and techniques and the production of practical work. In addition, students have opportunities to research, analyse, understand and reflect upon visual work of their own and within cultural, contemporary and historical contexts. Art practical works may take any of the following forms: drawing, painting, digital imaging, mixed media, printmaking, photography, sculpture or textiles.

**ASSESSMENT**

This subject will be assessed against the SACE (Visual Arts) Performance standards.

- Folio - 40%
- Practical - 30%  
one practical or a suite of works, including a practitioner's statement
- Visual Study - 30%

**VISUAL ARTS - DESIGN**

10 or 20 Credits

**PREREQUISITES**

There are no formal prerequisites, however drawing skills are an advantage, but not essential. This single unit subject provides a solid preparation for Visual Arts – Design at Stage 2.

**WHERE DOES IT LEAD?**

The Visual Arts – Design course provides an excellent background for a wide range of tertiary courses and careers. Tertiary courses include Architectural Design, Interior Architecture, Engineering (Architectural), Industrial Design, Education (Visual Arts), Built Environment, Media Design, Landscape Architecture, Fashion Design, Fashion Illustration, Graphic Design and Web Design.

University Senior College offers a Partner's Pathway program to the University of Adelaide for students wishing to pursue courses in Architecture.

**WHAT IS IN THE COURSE?**

Visual Arts – Design encompasses graphic and communication design, environmental design and product design. The dominant proposition is that Design emphasises a problem-solving approach to the generation of ideas or concepts. It encourages the development of

visual representation skills to communicate resolutions. Through brainstorming and the development of ideas, experimentation, and investigation in a diversity of media, processes and techniques, Design students demonstrate a range of technical skills and aesthetic qualities. Through the analysis of other practitioners' works of design, students gain knowledge and understanding of their styles, concepts, content, forms, and conventions and learn how to respond to works in informed ways.

**Topics and Themes**

For the Practical and Folio components the topics are quite varied and are designed to meet the interests of the cohort. Possible topics include:

- Retail Shop architecture and Interior Design
- Domestic architecture – city townhouse
- Fashion Design and Illustration – paper fashion
- Product Design – chair design
- Graphic Design – logos, posters, cd covers
- Package design – food and beverage
- Jewellery design – eco friendly principles
- Landscape design – roof top gardens

The Visual Study is an investigation into design techniques and analysis of design works from both historical and contemporary designers. It is generally based on a Visual Arts - Design movement which could include:

- The Arts and Crafts movement
- Art Nouveau
- Art Deco
- The Bauhaus movement
- Modernism
- Pop Art
- Memphis

**ASSESSMENT**

- Practical - 40%
- Folio - 30%
- Visual Study - 30%

## BUSINESS, ENTERPRISE, AND TECHNOLOGY

### ACCOUNTING

10 or 20 Credits

#### WHERE DOES IT LEAD?

Accounting may be undertaken as a 10-credit subject or a 20-credit subject at Stage 1 level and provides an introduction to the language and a solid background in preparation for Stage 2 Accounting. It is also a useful subject for students wishing to undertake further study in this area.

#### WHAT IS IN THE COURSE?

The study of Accounting encompasses the successful management of financial affairs in business. It gives students opportunities to learn the practical skills needed to manage their own financial affairs and to develop an understanding of the ethical and regulatory considerations that affect financial decision-making in contemporary society. Accounting enables students to develop skills in critical thinking, problem-solving, and the use of information and communication technologies.

Stage 1 Accounting provides the opportunity for students to become familiar with the language of accounting and gives students an introduction to the skills and abilities required to be successful at Stage 2 level.

The Environment of Accounting is studied in each semester, together with at least two option topics.

The Environment of Accounting introduces students to basic concepts and gives opportunities to develop an understanding of the function and role of accounting in society as well as gain a basic understanding of accounting processes.

The option topics in Semester 1 are:

- Cash Recording, which includes the preparation of cash journals
- Statement of Receipts and Payments
- Analysis and Interpretation of Financial Reports.

Use of information and communication technologies to assist in recording is introduced using excel spreadsheets.

Semester 2 integrates the Environment of Accounting with the options of Double entry recording, Preparation and analysis of Financial Statements as well as computerized accounting using MYOB software.

#### ASSESSMENT

Assessment is at the school level in Stage 1.

- Skills and Applications Tasks - 70%
- Investigation - 30%

## BUSINESS AND INNOVATION

10 Credits

#### WHERE DOES IT LEAD?

Students will be able to study Stage 2 Business Innovation.

#### WHAT IS IN THE COURSE?

At the end of the program in Stage 1 Business and Innovation, students will be able to:

- understand the nature, role, and structure of business and innovation, locally and/or nationally;
- demonstrate knowledge of the functions, processes, and operations of business and innovation;
- communicate in ways that are suitable for the business environment and appropriate to audience and purpose, including the use of information and communication technologies;
- apply relevant business ideas, practices, and concepts such as business planning, product development, financial management, and marketing;
- understand current trends and changes, opportunities, and issues that have an impact on business and innovation, locally, nationally, or globally;
- understand the ethical, social, and environmental consequences of business and innovation practices in different contexts.

Students undertake the core topic and two or three option topics.

#### Core Topic:

Introduction to Business and Innovation

- definitions of business and innovation,
- the nature of business and innovation,
- key business and innovation functions,
- the role of small and medium-sized innovation in Australia,
- forms of ownership,
- ethical, moral, and legal issues

#### Option Topics:

1. Establishing a Business (identifying business opportunities, identifying the target market, key considerations in setting up a business, critical issues in business success and failure).
2. Business Plans (the role of the business plan, the business planning process, elements of a business plan).
3. Business Management and Communication (the nature of management, human resource management, team skills and conflict resolution, effective communication).
4. Financial Planning and Management (the role of financial planning, sources of finance, the financial management of business, using financial information, ethical and legal issues).
5. Technology for Business (the impact of technology on work

practices, the use of technology in business, information systems and databases, managing technological change).

6. Marketing (the nature and role of markets and marketing, elements of a marketing plan, market research, developing marketing strategies, ethical and legal aspects).

7. Employment Relations (the nature of employment relations, key influences on employment relations, the legal framework of employment, ethical and legal aspects).

8. Entrepreneurship (the changing nature of the workplace, the role of the entrepreneur, entrepreneurship and the enterprising employee, innovation skills, planning and organising an event).

9. Global Business (globalisation, global business strategy, operating in the global environment, managing global business, ethical practice and management responsibility).

#### ASSESSMENT

Assessment will consist of:

- Folio (objective, short-answer, stimulus, extended-writing questions, market research activities, written reports, essays, tests, multiple-choice questions, workplace investigations, interviews, responding to guest speakers, an oral or multimedia presentation with written support material, a mid-year test and an examination).
- Practical (students undertake a practical assignment involving research into or investigation of an aspect of a business or innovation).

## CROSS-DISCIPLINARY

### PERSONAL LEARNING PLAN (PLP)

10 Credits

#### SUBJECT DESCRIPTION

The Personal Learning Plan (PLP) is a compulsory 10-credit SACE subject. Students must achieve a C grade or better to successfully complete the PLP.

The PLP helps students plan for their future by helping them to make informed decisions about:

- the subjects they will study in Years 11 and 12 and beyond
- possible career choices and ideas for community service
- how best to prepare for their career options and other goals.

Students normally begin the PLP in Year 10 so that they can plan for successful SACE learning in Years 11 and 12. A significant number of students come to USC without a completed PLP. Most (but not all of these) are international students who are enrolled in an Intensive English program of varying duration, and all of them intend to proceed to tertiary study.

#### TEACHING METHODOLOGY AND FOCUS

1. Fundamental focus of the program is the development of student autonomy as learners.
2. There is a strong emphasis on learning, practising and reinforcing basic literacy skills.
3. A major focus is on career development, with visits to university Open Days and university events.
4. There is a strong focus on unique aspects of the SA education system, specifically about assessment rubrics.
5. There is a strong emphasis on development of student awareness of the SACE capabilities as a preparation for the Stage 2 Research Project.

#### AREAS OF COMPETENCY DEVELOPMENT

1. Development of key areas of knowledge, especially in university courses and careers.
2. Practical development of goal-setting and goal-oriented strategy development skills.
3. Development of skills in communicating appropriately using a variety of media.
4. Development of knowledge of Australian education systems and processes, with a focus on knowledge of the SACE capabilities and assessment processes.
5. Development of skills in reflective thinking and writing, especially around goals, strategies and the SACE capabilities.

#### PROGRAM

Students arrive in this course under a staggered intake

system, with widely varying language and learning skills. As students complete this program, they transition (if their time allows) into development of skills and concepts of critical necessity for the Research Project. Language development is a major focus of the course.

**Term 1** – The first term focuses on students' clarification and development of their plans, goals and strategies for their futures. There is a strong initial emphasis on understanding the SACE capabilities, and how they can be used and developed. Students explore how engagement in community activities (like sports or social clubs or volunteering) can enhance their ability to refine their goals and strategies. A major component of the first term is preparation for active engagement at a Tertiary Careers Expo.

**Term 2** – As students complete set work they transition into a program to develop their independent research skills. Within this context a major focus of the second term is a program of research into University courses and careers research in preparation for Year 11 subject selection. This is followed by preparation for summative interviews.

#### ASSESSMENT

Both term grades weighted equally.

##### Term 1 Grade

- Vocabulary, concept tests - 20%
- SACE folio Tasks - 40%
- SACE review assessment tasks - 40%

##### Term 2 Grade

- Vocabulary, concept tests, research skills tasks - 40%
- SACE folio Tasks - 30%
- SACE review assessment tasks – 30%

### RESEARCH PROJECT

#### WHAT IS IN THE COURSE?

The Research Project is a compulsory 10-credit Stage 2 subject that students need to complete with a 'C' grade or better to achieve their SACE. Since this subject is recognised as a Stage 2 subject, it contains both school assessment and external assessment.

#### ASSESSMENT

The Research Project gives students the opportunity to study an area of interest in depth. It allows students to use their creativity and initiative, while developing the research and presentation skills they will need for further study or work. At University Senior College it is seen as an opportunity for students to engage in a focused and academic piece of research. Students are encouraged to link their Research Project topics with their future study plans at university in order to further help prepare them for those unique demands. Students will be expected to develop their capabilities and develop their research skills, as well as become ethically minded researchers.

Students select one or more of the SACE capabilities -

Literacy, Numeracy, Information and Communication Technology Capability, Critical and Creative Thinking, Personal and Social Capability, Ethical Understanding, and Intercultural Understanding - that they consider to be particularly relevant to their Research Project for development and demonstration. The demonstration, development and evaluation of the selected capabilities will be incorporated in the Research Folio.

It is expected that all students at University Senior College will undertake Research Project B, which has an external assessment that must be undertaken in written form. The Research Project may contribute to the ATAR score. In the Research Project students are also required to provide an evaluation of their project. This allows the student to critically discuss their research processes, findings and overall product.

- Research Folio
- Research Outcome
- Summary and Evaluation

## ENGLISH

### ENGLISH 20 Credits

#### PREREQUISITES

It is assumed a high level of English at middle school has been achieved.

#### WHERE DOES IT LEAD?

This subject will appeal to students who are interested in language, literature and film, as well as meaningfully interpreting the world around them. It leads to a wide range of tertiary programs where skilled communication and critical thinking are required. These include law, medicine, arts, journalism, academia, teaching, management, marketing, media, linguistics, sciences, architecture and engineering, among others. Stage 1 English provides each student with numerous opportunities to develop their capacity to communicate proficiently and meaningfully, in different ways and for a variety of purposes.

#### WHAT IS IN THE COURSE?

The course explores the idea that language is central to everything we do – from thinking, to expressing, to understanding each other and the universe around us, to giving our lives meaning. It involves the study of novels, films, articles, short stories, poetry, plays and creative writing which are investigated and responded to. Key focuses include: exploring the writer's craft, discovering the power of language to influence readers' points-of-view, and judging the value of language in various situations. The study of English is concerned with what people feel as well as what they think, ethics, aesthetics and philosophical ideas underpin the study of texts and raise many important questions about how language is used to entertain,

manipulate and enlighten. Analysing texts, creating various written and oral texts, creative writing and investigating how texts influence and are influenced by each other, are key activities throughout the course.

#### ASSESSMENT

- Responding to Texts
- Creating Text
- Intertextual Study
- Assessment

#### NOTES

- Please note that 20 credits of either English or English as a Second Language are compulsory.
- Results are reported to SACE in the form of five grade bands A to E. Students must achieve a grade of C or better in English to meet SACE Literacy Requirements.

### ENGLISH AS AN ADDITIONAL LANGUAGE 20 Credits

#### PREREQUISITES

Eligibility for this subject is based upon the number of years of school in which the medium of instruction was English:

- Students who have had 5 or less years of instruction in English are eligible.
- Students who have had a total of more than 5 years of instruction in English, but whose knowledge of English is restricted may be allowed to take this subject following an English language proficiency assessment using the eligibility criteria set by the SACE Board.

#### WHERE DOES IT LEAD?

English as an Additional Language is designed for students for whom English is a second language or an additional language or dialect. These students have had different experiences in English and one or more other languages. Students who study this subject come from diverse personal, educational and cultural backgrounds.

It provides opportunities for students to develop their English language skills, thus supporting their learning in the other areas of their schoolwork. It is designed primarily for students wishing to undertake study at University as it has a focus on academic research and language.

#### WHAT IS IN THE COURSE?

This subject focuses on the development and use of skills and strategies in communication, comprehension, language and text analysis, and creating texts.

Through studying a variety of oral, written and multimodal texts, including informational and literary texts, students develop an understanding of text structures and language features. Students explore the relationship between these structures and features and the contexts, purpose and audience of texts. Information, ideas, and opinions in texts are identified and interpreted.

Students develop confidence in creating texts for different purposes in both real and implied contexts. Students broaden their understanding of sociocultural and sociolinguistic aspects of English, through their study of texts and language. They develop skills for research and academic study.

#### ASSESSMENT

- Text production oral and written
- Communication study oral and written
- Investigation oral and written

#### NOTES

Students who complete 20 credits of Stage 1 and Stage 2 English as an Additional Language with a C grade or better will meet the literacy requirement of the SACE. Credits gained from any of the subjects can be combined with credits gained from other subjects in the English Learning Area.

## HUMANITIES AND SOCIAL SCIENCES

### ANCIENT STUDIES

#### 10 or 20 Credits

#### WHERE DOES IT LEAD?

Ancient Studies is a subject for students who have an interest in antiquity and in developing their skills of historical research, social analysis and literary criticism as well as making informed and reasoned judgements about the literature, history and culture of ancient civilisations. This subject is ideal for those students who wish to develop their research and critical thinking skills and as such forms a solid foundation for a large range of tertiary courses, particularly the study of Classics, Archaeology, Art History, Anthropology and History.

#### WHAT IS IN THE COURSE?

This course introduces students to the study of ancient societies and the methods used by archaeologists and historians to research the past. Students examine evidence such as artefacts, architectural remains, primary source inscriptions and documents, develop research skills and explore the forces that helped the social, political, economic institutions and structures of ancient cultures.

#### Topic areas include:

- New Kingdom Egypt
- Classical Mythology
- Roman Sport and Spectacle
- The Persian Empire
- Pompeii and Herculaneum
- Mycenae and Troy

#### ASSESSMENT

- In-Class Essay
- Oral Presentation
- Research Essay
- Examination

**AUSTRALIAN & INTERNATIONAL POLITICS**

10 or 20 Credits

**WHERE DOES IT LEAD?**

This course encourages students to understand the essential features of the Australian Government and International Politics. It allows students to understand how politics affects our lives and how they can become involved themselves or more generally develop their roles as informed citizens. This subject provides excellent preparation for those students who may wish to study politics or any discipline in which effective communication, in both written and oral forms is fundamental. It provides excellent preparation for tertiary courses in the professions, such as Law, International Studies or Commerce and could well lead to a career in Politics or the public service.

**WHAT IS IN THE COURSE?**

Politics is all pervasive and it is impossible for anyone in our society not to be touched every day by political decisions. Politics is an active process at work in families, businesses, communities, as well as at the local, state and federal levels, right through to the international sphere. In a boisterous and active classroom environment, students are challenged to explore their political knowledge, bias and interests. Power and decision making is an important topic in which the important question is posed - What is power and who has it in society? A second topic is Community politics, in which students gain an understanding of the politics directly affecting their day to day environment. In the third topic, Government, the concepts of democracy, representative and responsible government are considered, exploring the roles of politicians and electors. The options topic examines how ideology has helped shape international politics. There is a strong emphasis on what is happening in politics today and thus needs analysis and sources are significant.

Essay writing is a very important skill that will be developed during this course.

**ASSESSMENT**

- Folio
- Source Analysis
- Investigation
- Examination

**ECONOMICS**

10 or 20 Credits

**WHERE DOES IT LEAD?**

Economics provides an excellent foundation for those students who wish to pursue studies in Business at the tertiary level. It is also useful for any course in which decision making, or an understanding of local or global economic issues is important. It develops skills of analysis and critical thinking and enables students to make informed economic choices. The study of economics at tertiary level could lead to positions as diverse as the formulation of economic

policy, industrial relations, advising developing economies or environmental economics.

**WHAT IS IN THE COURSE?**

The course aims to develop an understanding of basic economic concepts, with an emphasis on current economic events. It seeks to explore the interdependence between economic, social and political factors and underlines the important realisation that all economic decisions involve costs and benefits. Specifically, the course explores the economic problem which faces every country. All countries have to decide how to run their economies and how to allocate their resources. The course will consider different economic systems and the market mechanism, and how demand and supply determine the price we pay for goods and services. The role of governments in a market economy will also be considered. In Semester 2 we explore key national economic issues, such as unemployment and inflation. Developing economies are considered in relation to causes of poverty and possible strategies for development.

**ASSESSMENT**

- Group case study, independent issues study
- Folio
- Test and assignments
- Examination

**GEOGRAPHY**

10 or 20 Credits

**WHERE DOES IT LEAD?**

Geography provides an opportunity to study our environment and how we interact with it. It helps develop research and communication skills and so provides a solid foundation for wide range courses in the humanities areas, particularly into the rapidly growing fields of environmental management and sustainable development.

**WHAT IS IN THE COURSE?**

In particular Semester 1 will focus on the theme Global Issues and visit such global issues as:

- renewable energy options like coal seam gas, nuclear, solar, tidal, or wind farms and likely visit the Bureau of Meteorology;
- refugee movements and likely visit the Migration Museum and also review global waste management issues,
- the Great Pacific Garbage Patch.

Semester 1 will also focus on the theme Sustainable Places and here focus will be on the liveability and sustainability of Adelaide as seen through some local small scale excursions and field work close to their home as the emphasis moves to urban planning and development.

In Semester 2, students will focus on the theme Hazards where such events as cyclones, tornadoes, drought, bushfires, flooding, earthquakes, volcanoes, tsunamis,

landslides, and avalanches will be the centre of their attention and be developed further through a reflection of the work of Mawson as noted in an excursion to the State Museum and more recently the events as recorded in the State Library.

Geography relies heavily on written communication skills and students should have good short essay writing skills. The ability to develop an argument, to analyse a source and to synthesise a range of sources is seen as significant.

**ASSESSMENT**

- Geographic Skills and Application
- Fieldwork
- Examination

**MODERN HISTORY**

10 or 20 Credits

**WHERE DOES IT LEAD?**

Modern History involves the study of the changes within the world since 1750, examining developments and movements, the ideas that inspired them and their short and long-term consequences on societies, systems and individual. This is a literacy based subject with an emphasis on research, sources analysis and written and oral communication. This subject, then, is an ideal preparation for a large range of tertiary courses, particularly the study of History, Politics and International Studies and Sociology. There are no formal prerequisites. While not essential, this subject provides an excellent background for Stage 2 Modern History and/or Politics.

**WHAT IS IN THE COURSE?**

The course introduces students to the impacts of developments and movements on people's ideas, perspectives, circumstances, and lives. They investigate ways in which people, groups and institutions challenge political structures, social organisation, and economics models to transform societies.

**Topics area include:**

- Cuban Missile Crisis
- New York City
- Intelligence Failures
- Thatcher and Thatcherism

**ASSESSMENT**

- In-Class Essay
- Oral Presentation
- Research Essay
- Examination

**LEGAL STUDIES**

10 or 20 Credits

**WHERE DOES IT LEAD?**

A background in Legal Studies provides an excellent foundation for a wide range of tertiary courses as it provides an overview of the Australian Legal System, its governance and impact on all nature of Australian life. This course emphasises the development of analytical skills, research skills and provides a good background for those students who wish to pursue tertiary courses in the Professions, such as Law, Politics, Commerce, Economics, Marketing, Media and International Studies. Those progressing to study law will more often use this tertiary training to work in areas other than as practising lawyers, such as in government departments, business corporations, NGOs, the media and unions.

**WHAT IS IN THE COURSE?**

What is law? Why have laws? Are they fixed? Can we change them? The law permeates our lives every day. This course aims to develop an understanding of the Australian Legal System, the reason for laws and to trace how our laws evolved by considering the contributions made by our values, heritage and traditions in influencing how our current laws are generated and structured. Students should also develop knowledge of legal rights and how the legal system resolves problems. Further, they will learn how they can contribute to social progress by being involved in changing the law. Specific topics covered include law and society, justice and society plus optional topics. Optional topics of study may include young workers and the law, young people and the law, sports and the law, consumer law, technology and the law.

**ASSESSMENT**

- Coursework
- Issues Analysis
- Individual Presentation
- Examination

## LANGUAGES

### CHINESE (BACKGROUND SPEAKERS)

10 or 20 Credits

#### PREREQUISITES

This course is designed for students with a Chinese cultural and linguistic background. Typically, students originate from, and have been educated in a country where Chinese is the primary language spoken.

#### WHERE DOES IT LEAD?

This course enhances the understanding of Chinese culture and heritage by examining social issues in contemporary China. It will assist students making a transition into Australian culture which has a different style of learning. During the course, they will develop skills in thinking critically which is essential for completing their tertiary studies successfully.

#### WHAT IS IN THE COURSE?

This subject is organised around four prescribed themes, each explored through the examination of a number of contemporary issues. These are designed to help students understand the interdependence of language, culture and identity. The four prescribed themes are: China and the world, modernisation and social change; the overseas Chinese-speaking communities; language in use in contemporary China.

Through the exploration of these themes, students will be able to use Chinese language to exchange information, opinions and ideas, produce original texts, analyse, evaluate and respond to texts. By the end of the course they will also be able to understand aspects of the language and culture of Chinese-speaking communities.

#### ASSESSMENT

- Interaction
- Text production
- Text Analysis
- Investigation
- Examination

## MATHEMATICS

### MATHEMATICAL METHODS

10 or 20 Credits

#### WHERE DOES IT LEAD?

This subject focuses on mathematics which helps students to explore, describe and explain aspects of the world around us, with a particular emphasis on the mathematics associated with change. Mathematical Methods provides an important foundation for tertiary studies in a wide range of courses including Architecture, Engineering, Economics, the Professions, the Sciences, Commerce and the Medical Sciences. A significant number of tertiary courses list Mathematical Methods as either pre-requisite or assumed

knowledge.

Stage 1 Mathematical Methods provides the foundation for further study in Stage 2 Mathematical Methods.

#### WHAT IS IN THE COURSE?

The course aims to introduce students to real life applications of mathematics. Algebraic processes form a significant part of this course. Extensive use of the graphics calculator is made to provide numerical results or graphical representations. Then, as in all mathematical courses, there is the need to understand the mathematical concepts, to organise information, solve problems and communicate outcomes using appropriate language and symbols.

Mathematical Methods develops an understanding of calculus, statistics and mathematical arguments using reasoning and model development. Using functions and their derivatives and by mathematically modelling physical processes, students develop an understanding of the physical world through a sound knowledge of relationships involving rates of change. Students use statistics to describe and analyse phenomena that involve uncertainty and variation.

#### The specific SACE topics studied are:

- Functions and graphs
- Polynomials
- Trigonometry
- Counting and Statistics
- Introduction to Differential Calculus
- Growth and Decay

#### ASSESSMENT

##### SACE Assessment per 10 credit course

- Skills and Application Tasks
- Mathematical Investigation

##### USC Assessment per 10 credit course

- Skills and Application Tasks
- Mathematical Investigation
- Examination
- Online tasks

#### NOTES

10-credits of mathematics are compulsory. Students must achieve a grade of C or better in mathematics to meet SACE numeracy requirements.

Successful completion of 20 credits of Stage 1 Mathematical Methods is a prerequisite for Stage 2 Mathematical Methods.

Completion of 20 credits of Stage 1 Mathematical Methods is also a suitable background for Stage 2 General Mathematics.

### GENERAL MATHEMATICS

10 or 20 Credits

#### WHERE DOES IT LEAD?

General Mathematics is a subject suitable for those

students who want an understanding of the practical uses of mathematics in the business world in or the social sciences. It is therefore ideal for those students who wish to pursue courses such as Health Science, Business, Architecture, Building and Design, Law and Legal studies. Successful completion of this subject at Stage 2 prepares students for entry to tertiary courses requiring a non-specialised background in mathematics.

#### WHAT IS IN THE COURSE?

The course aims to introduce students to real life applications of mathematics in aspects of business and financial literacy. In this subject there is an emphasis on consolidating students' computational and algebraic skills and expanding their ability to reason and analyse mathematically. Extensive use of the graphics calculator is made to provide numerical results or graphical representations. Then, as in all mathematical courses, there is the need to understand the mathematical concepts, to organise information, solve problems and communicate outcomes using appropriate language and symbols.

General Mathematics extends students' mathematical skills in ways that apply to practical problem solving. A problem-based approach is integral to the development of mathematical models and the associated key ideas in the topics. These topics cover a diverse range of applications of mathematics, including personal financial management, measurement and trigonometry, the statistical investigation process, modelling using linear and non-linear functions, and discrete modelling using networks and matrices.

#### Stage 1 General Mathematics consists of the following six SACE topics:

- Investing and Borrowing
- Statistical Investigation
- Measurement
- Matrices and Networks
- Applications of Trigonometry
- Linear Equations (Functions) and their Graphs

#### ASSESSMENT

##### SACE Assessment per 10 credit course

- Skills and Application Tasks
- Mathematical Investigations
- Examination

##### USC Assessment per 10-Credit Course

- Skills and Application Tasks
- Mathematical Investigations
- Examination
- Online tasks

#### NOTES

A 10 credit course of mathematics where a C grade or higher is achieved is compulsory to meet SACE numeracy requirements.

20 Credits of Stage 1 General Mathematics or Stage 1 Mathematical Methods is assumed knowledge for Stage 2 General Mathematics.

### SPECIALIST MATHEMATICS

10 or 20 Credits

#### WHERE DOES IT LEAD?

This subject is designed for capable students of Mathematics who enjoy problem solving and who wish to further their studies related to Mathematics at the tertiary level. These students include those wishing to study engineering, computer science, physical sciences, mathematical sciences or surveying.

#### WHAT IS IN THE COURSE?

This course introduces a number of abstract concepts and develops abilities in mathematical problem solving. It enables students to develop their skills when approaching new challenges. The processes of investigation, modelling and reasoning are explored as students develop their individual problem solving skills and relate them to real life situations.

Algebraic processes form a significant part of this course. Conceptual thinking is developed through problem solving. Extensive use of the graphics calculator is made to provide numerical results or graphical representations. Then, as in all mathematical courses, there is the need to understand the mathematical concepts, to organise information, solve problems and communicate outcomes using appropriate language and symbols.

#### The specific SACE topics studied are:

- Geometry
- Arithmetic and Geometric Sequences & Series
- Matrices
- Vectors in the plane
- Further Trigonometry
- Real and Complex Numbers

#### ASSESSMENT

##### SACE Assessment per 10-Credit Course

- Skills and Application Tasks
- Mathematical Investigations
- Examination

##### USC Assessment per 10-Credit Course

- Skills and Application Tasks
- Mathematical Investigations
- Examination
- Online tasks

#### NOTES

10-credits of mathematics are compulsory. Students must achieve a grade of C or better in mathematics to meet SACE numeracy requirements.

Stage 1 Specialist Mathematics is taken concurrently with Stage 1 Mathematical Methods

Successful completion of 20-credits of Specialist Mathematics at Stage 1 is seen as a prerequisite for Stage 2 Specialist Mathematics

Whilst not compulsory it is envisaged students will have completed 10A Mathematics

## SCIENCES

### BIOLOGY

10 or 20 Credits

#### WHERE DOES IT LEAD?

Biology at Stage 1 helps students to develop an appreciation of the living world, its complex interrelations, at both the molecular/cellular level and among living organisms. The course focus is primarily on human biology, allowing students to develop a deep and broad understanding of the human body. It also includes an exploration of ecology and evolution, supporting students interested in the future study of medical biology and/or ecological sciences. This subject is designed to prepare students to study Biology, first at Stage 2 level and then at the tertiary level, and for those courses for which Biology is regarded as either a prerequisite or assumed knowledge. Such courses include Medicine, Dentistry, Physiotherapy and the Health Sciences, Human Movement, Environmental Biology, Veterinary Science, Agriculture and Horticulture.

#### WHAT IS IN THE COURSE?

The Semester 1 course focuses on the characteristics of living things with an emphasis on cell structure and function. A highlight is a visit to the Adelaide Microscopy Centre. Microbiology and disease outbreaks are also discussed, and this includes a visit to the Botanical Gardens and Zoo. The semester concludes with an exploration of the structure of genetic material and a look at how proteins are made. In Semester 2, the emphasis is on human physiology. A look at health and nutrition and several interrelated systems is used to demonstrate the complexity of the human body. Human exchange surfaces and how the body responds to stimuli are also explored. The semester concludes with the study of ecology and evolution, which includes a trip to the Zoo.

#### ASSESSMENT

- Skills and Applications Tasks
- Investigations Folio
- Practical and 'Science as a Human Endeavour' Investigations
- Tests and Examinations

### CHEMISTRY

10 or 20 Credits

#### WHERE DOES IT LEAD?

Studying Chemistry gives students the exciting opportunity to develop and extend their understanding of how the physical world is chemically constructed, the interaction between human activities and the environment, and the use that human beings make of the planet's resources. The study of Chemistry will help students make informed decisions about how they interact with, and modify the world around them. Students will develop a range of

skills that will enable them to question, reflect, and think critically while they investigate and explain phenomena in their everyday lives.

Chemistry opens doors to a wide range of careers. Chemistry is involved in our everyday lives and there is a vast range of jobs and careers open to those who have studied Chemistry both inside and outside the lab. Nobody knows what the jobs of the future will look like, but many of them will be created in Chemistry to solve global challenges such as human health, energy and the environment. Chemistry is a good foundation for a wide range of tertiary courses, such as Medical Sciences, Engineering, Science and Environment.

#### WHAT IS IN THE COURSE?

In this Chemistry, students are expected to:

1. Apply science inquiry skills to design and conduct chemistry investigations using appropriate procedures and safe, ethical working practices.
2. Obtain, record, represent, analyse, and interpret the results of chemistry investigations.
3. Evaluate procedures and results, and analyse evidence to formulate and justify conclusions.
4. Develop and apply knowledge and understanding of chemical concepts in new and familiar contexts.
5. Explore and understand science as a human endeavour.
6. Communicate knowledge and understanding of chemical concepts, using appropriate terms, conventions, and representations.

Chemistry is a discipline of science, utilising the methods common to all science, but having its own body of knowledge and language. It is the study of matter and energy which considers the composition of substances and how they can be changed. The study of chemistry allows students to consider the use that people have made of the world's resources and the impact of human activity on the planet. In this way, it is hoped that students will be able to make informed choices that promote sustainable futures. This is a practical based course in which students will obtain facts about matter from observations and experiments made on simple materials. Students will investigate theories used to explain these facts.

#### Major topics covered include:

- The Nature of Matter Acids and the Environment
- Bonding Moles/Stoichiometry and Volumetric Analysis
- Organic Chemistry Redox and Electrochemistry

#### ASSESSMENT

##### Investigations Folio

Students undertake practical investigations and one investigation with a focus on science as a human endeavour per semester.

##### Skills and Applications Tasks

Students undertake two skills and applications tasks per semester.

#### USC Examination

Students undertake one 90 minutes examination.

#### NOTES

Semester 1 of Stage 1 Chemistry must be completed successfully for entry in to Semester 2. Successful completion of 20-credits of Stage 1 Chemistry is a prerequisite for Stage 2 Chemistry.

### PHYSICS

10 or 20 Credits

#### WHERE DOES IT LEAD?

This subject is designed to prepare students to study Physics at the tertiary level, and those courses for which Physics is regarded as either a prerequisite or assumed knowledge.

A solid grounding in Physics should enable students to make informed decisions about many of the significant issues faced by society today. Such decisions include how South Australia should deal with the nuclear waste from a nuclear power station sent from other countries. Physics also provides an excellent foundation in evidence-based logical reasoning and develops skills in critical thinking and attending to detail, making it an excellent preparation for any tertiary course.

Physics is regarded as one of the enabling sciences, underpinning a great many other disciplines and can lead to exciting careers in such diverse fields as Astrophysics, Photonics, Engineering, Medical Physics, Geology, Environmental Science, Mining and Defence Science.

Semester 1 of Stage 1 Physics must be completed for entry into Semester 2. Successful completion of 20 credits of Stage 1 Physics is a prerequisite for Stage 2 Physics

#### WHAT IS IN THE COURSE?

The core topics of this course include:

##### Semester 1

- Linear Motion and Forces in one dimension
- Waves and Light.

##### Semester 2

- Energy and Momentum
- Electric Circuits
- Nuclear Models
- Radioactivity and Heat.

Important elements of the course include the design and carrying out of practical investigations, researching and critically relating Physics ideas to society, solving physics related problems and communicating effectively about Physics.

#### ASSESSMENT

- Skills and Applications Tasks
- Tests and Exam
- Investigations Folio
- Design Practical
- 'Science as a Human Endeavour' Investigations

### PSYCHOLOGY

10 or 20 Credits

#### WHERE DOES IT LEAD?

In general, the skills learnt through Psychology are parallel to those learnt in other science subjects: how to be a critical consumer of information; how to identify psychological processes at work in everyday experiences; how to apply knowledge to real-world situations; how to investigate psychological issues; and how to be an effective communicator. Psychology is relevant wherever contact with other people occurs and it can lead to a broad range of careers, such as counselling, teaching, health professions, journalism, recruitment, law enforcement and advertising.

#### WHAT IS IN THE COURSE?

This subject sits between the life sciences and the humanities and emphasizes the construction of psychology as a scientific enterprise. The course aims to provide an insight into behaviour and so gain a greater understanding of oneself and identify effective actions to address social problems.

#### Topics and Themes

At Stage 1 there is a compulsory topic 'Introduction to Psychology' and two option topics in one semester. Introduction to Psychology covers research methods and ethics. Other topics may include brain and behaviour, emotion, social behaviour, educational psychology and positive psychology.

A study of a second and separate semester of Psychology at Stage 1 does not require a repeat study of 'Introduction to Psychology' and consists of three option topics.

#### ASSESSMENT

- Investigations Folio – including two written investigations
- Skills and Applications Tasks which may include topic tests, film analysis and an examination.

### SCIENTIFIC STUDIES

10 Credits

#### WHERE DOES IT LEAD?

Scientific Studies leads to Scientific Studies in Stage 2.

Scientific Studies allows students to develop innovative and critical thinking in the world of science and to develop a cohesive understanding of the natural world through the discovery of new ways of doing and thinking. Through a focus on science inquiry skills and scientific ways of observing, questioning, and thinking, students in Scientific Studies actively investigate and respond to authentic, engaging, and complex questions, problems, or challenges.

Students employ interdisciplinary approaches with a focus

on science and engineering, supported through the application of technology, design, and mathematical (STEM) thinking.

At the end of the program in Stage 1 Scientific Studies, students will be able to:

- develop and apply science inquiry skills and understanding of scientific concepts, in new and familiar contexts
- design and conduct scientific investigations to obtain evidence, using appropriate procedures and safe, ethical working practices
- evaluate procedures and results, represent and analyse evidence, and formulate and justify conclusions
- evaluate the effectiveness of collaboration and its impact on results/outcomes
- explore and understand the interaction between science and society
- communicate knowledge and understanding of scientific concepts, using appropriate terms, conventions, and representations.

#### WHAT IS IN THE COURSE?

In Stage 1 Scientific Studies, scientific inquiry is the basis for developing integrated programs of learning through which students extend their skills, knowledge, and understanding of the three strands of science.

#### Understanding of scientific concepts

Students develop and extend their (knowledge and) understanding of key scientific concepts through the contexts they are investigating. These key scientific concepts may include, for example: organisation and patterns, systems, cause and effect, structure and function, scale and measurement, change, energy and matter, and diversity. Alternatively, contemporary scientific concepts may be explored.

Students will explore and extend their understanding of a range of science concepts relevant to the contexts they are studying, and investigate and apply their understanding of these concepts through the science inquiry skills. They will make connections between these key scientific concepts and their influence in society through investigations of science as a human endeavour.

#### Science as a human endeavour

The Science as a Human Endeavour strand highlights the development of science as a way of knowing and doing, and explores the use and influence of science in society.

#### Science inquiry skills

In Scientific Studies, investigation is an integral part of the learning and understanding of concepts, using scientific methods and/or the engineering design processes to test ideas and develop new knowledge.

Science inquiry skills are the focus of learning in this subject. The contexts that students use to explore and inquire into aspects of science are chosen to be relevant and contemporary. These contexts form a framework that enables students to actively engage in inquiry-based learning and further develop their science understanding.

#### ASSESSMENT

Assessment will consist of:

- Inquiry Folio consisting of two tasks with a focus on science inquiry skills and one investigation with a focus on science as a human endeavour
- Collaborative Inquiry where students collaborate to design and conduct an investigation for which the



## STAGE 2 SUBJECTS - YEAR 12

Our Year 12 students generally undertake 5 subjects at Year 12. Moreover, the Year 12 experience includes a challenging set of mid-year examinations, set in part to prepare students for the final SACE examination or external assessment experience, but also as an important component of the Partner's Pathway in their own right.

For most of the Year 12 subjects, there is a lecture-tutorial system. These sessions are designed to maximise opportunities to learn skills and concepts in an effective manner and at the same time, to extend and refine student knowledge and understanding through discussion, debate and practical activities.

#### ASSESSMENT & REPORTING

The assessment of Year 12 subjects is consistent with SACE Board guidelines, with grades A+ – E-, awarded on the basis of the Performance Standards.

At USC, students are provided with a report, with copies given to their parents or guardians towards the end of each school term. At the end of Terms 1 and 3, students are given a report which includes a grade based upon the SACE Board performance standards for each subject. At the end of Term 2, students also receive a report which includes a grade and a record of their absences for the assessment period. As well as these reports, there are several Parent/Teacher/Student evenings, at which students, with their parents and teachers can discuss their progress. At the Graduation Ceremony, students are presented with their Graduation Report and a certificate of completion of Year 12. The College encourages students and their parents to discuss concerns about individual progress, initially through contact with the subject teacher or mentor and then with the relevant Dean.

#### ARTS

- Drama
- Musicianship
- Solo Performance
- Visual Arts - Art
- Visual Arts - Design

#### BUSINESS, ENTERPRISE, AND TECHNOLOGY

- Accounting

#### ENGLISH

- English Literary Studies
- English
- English as an Additional Language

#### HUMANITIES AND SOCIAL SCIENCES

- Ancient Studies
- Australian and International Politics
- Economics
- Modern History
- Legal Studies

#### LANGUAGES

- Chinese (Background Speakers)

#### MATHEMATICS

- Mathematical Methods
- General Mathematics
- Specialist Mathematics

#### SCIENCES

- Biology
- Chemistry
- Physics
- Psychology

**ARTS****DRAMA**

20 Credits

**WHERE DOES IT LEAD?**

Drama appeals to students with an interest in specialist performance, theatre and film, as well as language and communication. The subject leads to a wide range of tertiary courses, including Law, Architecture, Medicine, Media, Professional Acting, Directing, Designing, Arts, International Studies, Media, Creative Arts, Journalism, Film, Television, Marketing and Public Relations. An important element of this course is that it cultivates team-work and cooperation and so provides an excellent experience for those who wish to work on large projects in cooperation with others.

**WHAT IS IN THE COURSE?**

Drama is the art of engaging with others through the relationship of performer with audience. The discipline of Drama acknowledges that humans are both rational and irrational beings, composed of intellectual, emotional and physical aspects. Drama aims to integrate these aspects, empowering students to draw upon and refine their abilities as presenters of ideas, arguments and especially themselves. Core units include the Group Performance and Written Folio. Students frequently have the option to specialise in one or more roles such as: actor, director, designer, filmmaker and/or scriptwriter. The major focus of Semester 1 is the Group Performance and Group Analysis Presentation, while Theories of Performance, Design and Film are emphasised throughout the remainder of the year.

**ASSESSMENT****School Based Assessment (70%)**

- Group Presentation - 20%
- Folio - 30%
- Interpretive Study - 20%

**External Assessment (30%)**

- Performance - 30%

**NOTES**

It is assumed that students undertaking this subject have achieved a successful grade in Drama at Stage 1 level. Students selecting to participate in the Group Performance must be aware of the rehearsal commitment. Students may select the Individual Study component as an equally viable alternative.

**MUSIC**

**Music Studies - 20 Credits, four hours per week of classroom contact time.**

**Solo Performance and Ensemble Performance - 10 Credits each, two hours per week of classroom contact time.**

**PREREQUISITES**

Satisfactory completion of SACE Stage 1 Music or AMEB equivalent studies (Grade 3-4 in Theory or Musicianship for Music Studies and grade 4 Practical for Performance units).

**WHERE DOES IT LEAD?**

Music offers students the opportunity to acquire and develop creative and interpretive skills in music from a wide range of periods, styles and cultures. It can prepare students for the study of music at the tertiary level if desired, and fosters personal qualities of confidence, self-discipline, imagination and self-expression.

**WHAT IS IN THE COURSE?**

The choice of music units offered at Sage 2 is any one or a combination of:

- Music Studies 20 Credits: This unit offers options in performance and composing/ arranging; additionally, written and aural theory, analysis and harmony are studied in depth as core elements of the course.
- Solo Performance 10 Credits and Ensemble Performance 10 Credits: Both of these units require a series of three public performances alongside a study of style, structure and performance conventions; additionally, students consider and document strategies to enhance and improve their performance skills and audience engagement. (Please Note: For Ensemble Performance prior membership of an appropriate youth or community ensemble is required to attempt this unit; enrolment in this unit is by negotiation with and at the discretion of USC Music staff.)

**ASSESSMENT**

Music Studies:

- Creative Works, consisting of one or a set of Solo or Ensemble Performances lasting 10-12 minutes or Compositions/Arrangements of 5-6 minutes duration
- Musical Literacy tasks in theory, analysis and harmony
- Exam in written and aural theory, analysis and harmony

Solo Performance and Ensemble Performance:

- Three Public Performances of different works lasting between 18 and 24 minutes in total, plus two written/multimodal presentations sequenced as follows:

First Performance; Second Performance and Discussion, analyzing the chosen works and critiquing performance

strategies; Third Performance and Portfolio evaluating the student's musical journey through the course.

**VISUAL ARTS - ART**

20 Credits

**WHERE DOES IT LEAD?**

The Visual Arts – Art course provides an excellent background for a wide range of tertiary courses and careers. Tertiary courses at local universities include Illustration, Animation, Creative Arts, Contemporary Art, Visual Art, Art history, Media Arts, Fashion Design, Fashion Illustration and teaching degrees.

**WHAT IS IN THE COURSE?**

Visual Art – Art expands on students' existing knowledge in the Visual Arts. Art includes the development of ideas, experimentation with media and techniques and the production of practical work. In addition, students must demonstrate their ability to research, analyse, understand and reflect upon visual art work of their own and within cultural, contemporary and historical contexts. Art practical works may take any of the following forms: drawing, painting, digital imagery, mixed media, printmaking, photography, sculpture or textiles.

**ASSESSMENT**

This subject will be assessed against the SACE (Visual Arts) Performance standards.

**School Based Assessment (70%)**

- Folio - 40%
- Practical - 30%

**External Assessment (30%)**

- Visual Study - 30%

For a 10 credit subject, students should provide evidence of their learning through four assessments. Students produce:

- one folio
- one practical work, including a practitioner's statement
- one visual study.

For a 20 credit subject, students should provide evidence of their learning through six assessments, including the external assessment component. Students produce:

- one folio
- two practical works, including a practitioner's statement for both practical works
- one visual study.

**VISUAL ARTS - DESIGN**

20 Credits

**PREREQUISITES**

There are no formal prerequisites; however drawing skills are an advantage, but not essential. Students benefit from completing a 10 or 20 credit unit in Stage 1 Visual Arts - Design which provides a solid preparation for Visual Arts – Design at Stage 2.

**WHERE DOES IT LEAD?**

The Visual Arts – Design course provides an excellent background for a wide range of tertiary courses and careers. Tertiary courses include Architectural Design, Interior Architecture, Engineering (Architectural), Industrial design, Education (Visual Arts), Built Environment, Media Design, Landscape Architecture, Fashion Design, Fashion Illustration, Graphic Design and Web Design.

University Senior College offers a Partner's Pathway program to the University of Adelaide for students wishing to pursue courses in Architecture.

**WHAT IS IN THE COURSE?**

Visual Arts – Design encompasses graphic and communication design, environmental design and product design. The dominant proposition is that Design emphasises a problem-solving approach to the generation of ideas or concepts. It encourages the development of visual representation skills to communicate resolutions. Through brainstorming and the development of ideas, experimentation, and investigation in a diversity of media, processes and techniques, Design students demonstrate a range of technical skills and aesthetic qualities. Through the analysis of other practitioners' works of design, students gain knowledge and understanding of their styles, concepts, content, forms, and conventions and learn how to respond to works in informed ways.

**Learning Requirements**

In Visual Arts – Design students are expected to:

- Conceive, develop and make works of design that reflect individuality and the development and communication of a personal visual aesthetic.
- Demonstrate visual thinking through the development and evaluation of ideas and explorations in technical skills with media, materials and technologies.
- Apply technical skills in using media, materials, technologies and processes to solve problems and resolve works of design.
- Communicate knowledge and understanding of their own works and the connections between their own and other practitioners' works of design.
- Analyse, interpret and respond to visual arts in cultural, social and historical/contemporary contexts.
- Develop inquiry skills to explore visual arts – design issues, ideas, concepts, processes, techniques and questions.

Three areas of study are covered in the course:

- Visual Thinking
- Practical resolution
- Visual Arts in Context

**ASSESSMENT****School Based Assessment (70%)**

- Folio - 40%
- Practical - 30%

**External Assessment (30%)**

- Visual Study - 30%

**BUSINESS, ENTERPRISE, AND TECHNOLOGY****ACCOUNTING****20 Credits****WHERE DOES IT LEAD?**

The course provides a background for students who wish to undertake further study in the fields of Commerce, Finance or Business at tertiary level.

Students acquire knowledge and skills related to the accounting process for organisational and business applications. Students understand the processes involved in generating, recording, classifying, analysing, interpreting, and reporting accounting information. They learn how to interpret the financial information of an accounting entity.

**WHAT IS IN THE COURSE?**

For business to function properly, effective methods of communication among owners, managers and investors are essential. Accounting fills the need for a common language of business. It records and processes financial information into an easily accessible format which can be understood by any person in the business world.

The purpose of accounting is to accumulate and report on financial information about the performance, financial position and cash flows of a business. This information is then used to assist in making decisions about how to manage the business, invest in the business, lend money or provide goods and services on credit to the business.

Students have opportunities to develop the following skills: understand and appropriately use accounting terminology, collect and process financial data and effectively communicate financial information.

**Topics and Themes**

Students study 3 sections: The Environment of Accounting, Financial Accounting and Management Accounting.

The Environment of Accounting provides knowledge and understanding of the role of accounting and its entities and decision making structures.

In the Financial Accounting topic, students gain a working knowledge of the dual effects of transactions on the accounting equation and an understanding of the double entry recording process, as well as other accounting concepts which provide the basis for current standards and practices.

In the Management Accounting topic, students apply the conceptual knowledge introduced in earlier topics and gain an understanding of how managers plan and control the business in order to make valid decisions.

**ASSESSMENT****School Based Assessment (70%)**

- Skills and Applications Tasks - 50%  
There are 6 tasks which are based on unseen data and undertaken under timed, supervised conditions to a maximum of 60 minutes.
- Written Report - 20%  
This is an analytical extended written response to unseen data, and includes ratio calculations. The report is written under timed, supervised conditions to a maximum of 60 minutes.

**External Assessment (30%)**

- Examination - 30%

**ENGLISH****ENGLISH LITERARY STUDIES****20 Credits****PREREQUISITES**

It is assumed that students undertaking this subject have achieved a successful grade in 20 credits of Stage 1 English.

**WHERE DOES IT LEAD?**

This subject will appeal to students who have an interest in language, literature and film. It leads to a wide range of tertiary courses in which clear communication and critical thinking are essential. These include Arts, Journalism, Law, Management, Marketing, Media, Social Sciences and Teaching at both the secondary and tertiary level.

**WHAT IS IN THE COURSE?**

Stage 2 English Literacy Studies focuses on the skills and strategies of critical thinking needed to interpret texts. Through shared and individual study of texts:

- students encounter different opinions about texts.
- have opportunities to exchange and develop ideas.
- find evidence to support a personal view.
- learn to construct logical arguments.
- consider a range of critical interpretations of texts.

English Literacy Studies focuses on ways in which literacy texts present culture and identity, and on the dynamic relationship between authors, texts, audiences and contexts. Students develop an understanding of the power of language to represent ideas, events, and people in particular ways and how texts challenge or support cultural perceptions.

By focusing on the creativity and craft of the authors, students develop strategies to enhance their own skills in creating texts and put into practice the techniques they have observed.

**ASSESSMENT**

- Responding to Texts - 50%
- Creating Texts - 20%
  - Text Study (Externally assessed)
- Comparative Text Study - 15%
- Critical Reading (Examination) - 15%

**ENGLISH****20 Credits****WHERE DOES IT LEAD?**

English is primarily concerned with the use of written and oral language. Students create, analyse and evaluate a range of text types. The emphasis is on forms of communication appropriate to specific purposes, contexts and audiences. It is therefore an ideal subject for those students who wish to develop their communication skills for tertiary studies and careers, including the Professions, the Sciences, Engineering and Health Sciences, where clear, precise, accurate and effective communication is important.

**WHAT IS IN THE COURSE?**

Students will explore, analyse and evaluate texts, such as poetry, media, film and prose, as well as produce their own texts. The emphasis will be on: understanding the ideas; characteristics of texts; the purpose of the communication; and an exploration of the language structures and conventions used. As well, students are expected to refine their own text composition skills and develop a critical awareness of how their texts may be interpreted or used. There are two compulsory oral components in the course.

**ASSESSMENT****School Based Assessment (70%)**

- Responding to Texts - 30%
- Creating Text - 40%

**External Assessment (30%)**

- Comparative Analysis - 03%

**ENGLISH AS AN ADDITIONAL LANGUAGE****20 Credits****WHERE DOES IT LEAD?**

English as an Additional Language is designed for students for whom English is a second language or additional language or dialect. These students have had different experiences in English and one or more languages. Students who study this subject come from diverse personal, educational, and cultural backgrounds.

This subject provides opportunities for students to develop their knowledge and critical understanding of what is accurate and appropriate in primarily formal and academic contexts. English as an Additional Language studies is aimed at students who are intending to pursue tertiary studies.

**WHAT IS IN THE COURSE?**

This subject focuses on the development and use of skills and strategies in communication, comprehension, language and text analysis and text creation.

Through studying a variety of oral, written and multimodal texts, including informational and literary texts, students develop an understanding of text structures and language features. Students explore the relationship between the structures and features and the purpose, audience, and contexts of texts. Information, ideas, and opinions in texts are identified and evaluated. Personal, social and cultural perspectives in texts are analysed and evaluated.

Students develop confidence in creating texts for different purposes in both real and imagined contexts. Students broaden understanding of sociocultural and sociolinguistic aspects of English through their study of texts and language. They develop skills for research and academic study.

**ASSESSMENT****School Based Assessment (70%)**

- Academic Literacy Study - 30%
- Responses to Texts - 40%

**External Assessment (30%)**

- Examination - 30%

**HUMANITIES AND SOCIAL SCIENCES****ANCIENT STUDIES****20 Credits****WHERE DOES IT LEAD?**

Ancient Studies is a subject for students who have an interest in their cultural heritage and in developing their skills of historical research, social analysis and literary criticism as well as making informed and reasoned judgements about the literature, history and culture of Ancient Greece. This subject is ideal for those students who wish to develop their research and critical thinking skills and, as such, forms a solid foundation for a large range of tertiary courses, particularly the study of Film, Media, English, Law, History, Politics, Art, Design, Classics and Archaeology.

**WHAT IS IN THE COURSE?**

The course involves three topics and an individual inquiry. Students will explore:

- Homer's The Odyssey
- Greek Society 5th Century BCE culture and politics of Sparta and Athens
- Greek Drama Sophocles Oedipus Rex and Euripides Medea.

For the individual inquiry, students will be expected to develop an argument from any aspect of the ancient world c.2000 BCE to 907 CE and write a polished research essay.

**ASSESSMENT****School Based Assessment (70%)**

- Four Skills and Applications Tasks - 50%
- Two Connections Tasks - 20%

**External Assessment (30%)**

- One Individual Inquiry Essay - 30%

**AUSTRALIAN & INTERNATIONAL POLITICS****20 Credits****WHERE DOES IT LEAD?**

In undertaking Australian and International Politics, students develop a range of generalist and specialist skills that can lead to pathways to employment and further study opportunities. An understanding of Australian and international politics can be valuable for those interested in law, journalism, business and management, social services, or the public service. They develop their understanding and build their capacity for informed involvement in political processes that influence relationships in workplaces, places of education, and public places and spaces.

**WHAT IS IN THE COURSE?**

The study of Australian and International Politics will appeal to students with an interest in the nature of power in contemporary societies. It will be of relevance to continuing students and those who are returning to formal study.

Politics is the study of power at all levels of society. Expressions of power affect relationships with others in families, communities, and workplaces, as well as in the institutions of finance, bureaucracy, education, the law, and the media. Experiences of power may range from a sense of command and control to conflict or feelings of injustice.

The study of politics focuses on the systems of decision-making and adjudication that govern the expressions of power throughout society, particularly the formal institutions that make up the complex systems of modern government.

**Topics**

Students studying Australian and International Politics will examine the following in the Core Topics.

Core Topic 1 examines "The Australian Constitution and Federalism". Far from being a dry topic that they may have encountered in previous teachings it is an exciting and vibrant topic to study.

Core Topic 2 examines Political Representation, Parliament and the Executive." This topic brings much of the day to day world of politics to life and makes sense of current events and issues.

Core Topic 3 explores the how and why of "Voting and Elections" and students will quickly realize that their vote does count.

A range of interesting and challenging experiences face the student when they study Core Topic 4, "Political Parties." The major political parties are looked at in detail as are minor parties and independents. Students also examine their own needs and values in this area.

In the International Politics section there is a choice of topics to be studied. Because of America's role and influence in world affairs at this time and the impact on Australian politics today the class will be studying "The United States of America and World Affairs

**Sub topics include**

- America-superpower to global hegemon
- Impact of September 11
- Various and alternative perspectives on American foreign policy
- Relations between America and Australia

**ASSESSMENT****School Based Assessment (70%)**

- Folio - 30%  
During the year students will attempt a well set out assessment plan that will allow them to demonstrate their knowledge and skills whilst providing rigorous preparation for the exam.

Politics is a literacy based subject and there is heavy emphasis on essay writing both as research essays and essay writing under test conditions. (Seen and unseen)

Research assignments, multiple choice tests and a midyear exam are other forms of assessment attempted during the year.

- Sources Analysis - 20%  
Students will also be required to complete two sources analysis tasks.

- Investigation - 20%

**External Assessment (30%)**

- Examination - 30%

**ECONOMICS****20 Credits****WHERE DOES IT LEAD?**

Economics provides an excellent foundation for those students who wish to pursue studies in Business at the tertiary level. It is also useful for any course in which decision making, or an understanding of local or global economic issues is important. It develops skills of analysis and critical thinking and enables students to make informed economic choices. The study of Economics at tertiary level could lead to positions as diverse as the formulation of economic policy, industrial relations, advising developing economies or environmental economics.

**WHAT IS IN THE COURSE?**

The course aims to develop an understanding of basic economic concepts, with an emphasis on current economic events. It seeks to explore the interdependence between economic, social and political factors and underlines the important realisation that all economic decisions involve costs and benefits. Communication of ideas is seen as a vital part of this subject. Specifically, the course explores the economic problem, which underpins economic decision making and the key concepts of demand and supply. It also considers how markets operate in practice, and the economic goals of governments and how these are measured. Total demand and supply in the economy and their impact on government goals, as well as the economic policies available to the government to manipulate economic activity, are considered. Globalisation issues such as free trade, foreign investment and poverty are also studied.

**ASSESSMENT****School Based Assessment (70%)**

- Skills and Applications Tasks - 30%
- Folio - 40%

**External Assessment (30%)**

- Examination - 30%

**MODERN HISTORY****20 Credits****WHERE DOES IT LEAD?**

Students build skills in historical method through inquiry, by examining and evaluating the nature of sources. This includes who wrote or recorded them, whose history they tell, whose stories are not included and why, and how technology is creating new ways in which histories can be conveyed.

Students explore different interpretations, draw conclusions, and develop reasoned historical arguments. It equips them with knowledge and skills that are valuable and useful throughout life. These include research techniques, the skills needed to process and synthesise varied and complex materials, the skills needed to give clear and effective oral and written presentations, and the ability to articulate ideas and make them clear to others.

With these skills, students enhance their employability and are able to participate actively and critically in their societies.

**WHAT IS IN THE COURSE?**

History is a disciplined process of inquiry and investigation into the past that helps to explain how people, events and forces from the past have shaped our world. Awareness of history is an essential characteristic of any society, and historical knowledge is fundamental to understanding ourselves and others. It allows students to locate and understand themselves and others in the continuum of modern nations at a time of rapid global change.

Students engage in a study of one nation, and of interactions between or among nations. Through their studies, students build their skills in historical method through inquiry, by examining and evaluating the nature of sources.

Students explore different interpretations, draw conclusions, and develop reasoned historical arguments. As students develop their understanding of the nature of historical inquiry, they employ a robust methodology. They learn to ask and answer important questions, evaluate evidence, identify and analyse different interpretations of the past, and substantiate their arguments and judgments. Students can see why they are learning and what they are learning, and they can debate the significance of the history they learn.

**Topics**

- One topic from a choice of six Modern Nations topics.
- One topic from a choice of six 'The World Since 1945' topics. Topic 7: The changing world order (1945 onwards)
- An individual Historical Study.

**ASSESSMENT**

The following assessment types enable students to demonstrate their learning in Stage 2 Modern History:

**School Based Assessment (70%)**

- Historical Skills - 50%
- Historical Study - 20%

**External Assessment (30%)**

- Examination - 30%

**LEGAL STUDIES**

20 Credits

**PREREQUISITES**

Students must have the ability to write in clear prose. Stage 1 Legal Studies provides an excellent background and is a definite advantage.

**WHERE DOES IT LEAD?**

A background in Legal Studies provides an excellent foundation for a wide range of tertiary courses. This course emphasises the development of analytical skills and research skills and provides a good background for those students who wish to pursue tertiary courses in the Professions, such as commerce, economics, marketing as well as law itself. Law graduates often work in areas other than as practising lawyers, including government departments, business, the media, education, international relations, NGOs like World Bank and Red Cross and unions.

**WHAT IS IN THE COURSE?**

The course comprises four interrelated units: The Australian Legal System (ALS); Constitutional Government.

Lawmaking and Justice Systems. Students will critically analyse the Australian legal system from a range of legal and cultural perspectives and consider from conflict and injustice that can occur. The legal system is explored from the local level through to its global connections, with a view to developing an understanding of how laws are made, how disputes are resolved for the betterment of society, and the effect that individuals or groups can have on these processes. A major objective is for students to learn enough about our legal system to emerge with sufficient confidence to understand how it affects their lives, both socially and in the workplace. The inclusion of active learning exercises using simulations like mock trials, sentencing hearings, treaty making exercises, supplement the traditional learning methods.

Students must have the ability to write in clear prose.

**ASSESSMENT****School Based Assessment (70%)**

- Folio - 50%
- Inquiry - 20%

**External Assessment (30%)**

- Examination - 30%

**LANGUAGES****CHINESE (BACKGROUND SPEAKERS)**

20 Credits

**PREREQUISITES**

This course is designed for students with a Chinese cultural and linguistic background. Typically, students originate from, and have been educated in a country where Chinese is the primary language spoken.

**WHERE DOES IT LEAD?**

This course enhances the understanding of Chinese culture and heritage by examining social issues in contemporary China. It will assist students making a transition into Australian culture which has a different style of learning. During the course, they will develop skills in thinking critically which is essential for completing their tertiary studies successfully.

**WHAT IS IN THE COURSE?**

This subject is organised around four prescribed themes, each explored through the examination of a number of contemporary issues. These are designed to help students understand the interdependence of language, culture and identity. The four prescribed themes are: China and the world, modernisation and social change; the overseas Chinese-speaking communities; language in use in contemporary China. Through the exploration of these themes, students will be able to use Chinese language to exchange information, opinions and ideas, produce original texts, analyse, evaluate and respond to texts. By the end of the course they will also be able to understand aspects of the language and culture of Chinese-speaking communities.

**ASSESSMENT****School Based Assessment (70%)**

- Folio
- In-depth Study

**External Assessment (30%)**

- Examination - 30%

**MATHEMATICS****MATHEMATICAL METHODS**

20 Credits

**PREREQUISITES**

It will be assumed that students will have successfully completed 20-credits of Stage 1 Mathematical Methods. The course builds on the foundation set in Stage 1 Mathematical Methods.

**WHERE DOES IT LEAD?**

Mathematical Methods provides an important foundation for tertiary studies in a wide range of courses including Architecture, Engineering, Economics, the Professions, the Sciences, Commerce and the Medical Sciences. A significant number of tertiary courses list Mathematical Methods as either pre-requisite or assumed knowledge. The successful completion of Stage 2 Specialist Mathematics attracts a two point bonus to a student's university aggregate from the South Australian Universities Language, Literacy and Mathematics Bonus Scheme. A maximum of four points is available under this scheme.

**WHAT IS IN THE COURSE?**

Stage 2 Mathematical Methods focuses on the development of mathematical skills and techniques that enable students to explore, describe, and explain aspects of the world around them in a mathematical way. It places mathematics in relevant contexts and deals with relevant phenomena from the students' common experiences, as well as from scientific, professional, and social contexts.

The coherence of the subject comes from its focus on the use of mathematics to model practical situations, and on its usefulness in such situations. Modelling, which links the two mathematical areas to be studied, calculus and statistics, is made more practicable by the use of electronic technology.

The ability to solve problems based on a range of applications is a vital part of mathematics in this subject. As both calculus and statistics are widely applicable as models of the world around us, there is ample opportunity for problem-solving throughout this subject.

**Topics**

- Topic 1: Further Differentiation and Applications
- Topic 2: Discrete Random Variables
- Topic 3: Integral Calculus
- Topic 4: Logarithmic Functions
- Topic 5: Continuous Random Variables and the Normal Distribution
- Topic 6: Sampling and Confidence Intervals.

**ASSESSMENT****School Based Assessment (70%)**

- Six Skills and Applications Tasks - 50%
- One Mathematical Investigation - 20%

**External Assessment (30%)**

- One 3 hour Examination - 30%

**NOTES**

Stage 2 Mathematical Methods and General Mathematics are precluded combination in the calculation of ATAR.

**GENERAL MATHEMATICS**

20 Credits

**PREREQUISITES**

The successful completion of Stage 1 General Mathematics or Mathematical Methods is assumed knowledge for Stage 2 General Mathematics.

**WHAT IS IN THE COURSE?**

General Mathematics extends students' mathematical skills in ways that apply to practical problem solving. A problem-based approach is integral to the development of mathematical models and the associated key concepts in the topics. Topics cover a diverse range of applications of mathematics, including personal financial management, the statistical investigation process, modelling using linear and non-linear functions and discrete modelling using networks and matrices.

In this subject, students experience and learn the mathematical process associated with investigating, modelling and solving problems drawn from real or realistic contexts. This includes clarifying the question(s) to be answered, gathering information, stating assumptions, ensuring that answers are reasonable, and examining the effects of changing parameters in a systematic way. The teaching and learning program makes provisions in lesson time for routine work, student research, the use of technology and assessments. A problems-based approach is used to develop the mathematical models and associated key ideas in each topic. Through key questions, the key concepts and processes that relate to the mathematical models required to address the problems posed are developed.

Successful completion of General Mathematics at Stage 2 prepares students for entry to tertiary courses requiring a non-specialised background in mathematics.

**Topics**

- Topic 1: Modelling with Linear Relationships
- Topic 2: Modelling with Matrices
- Topic 3: Statistical Models
- Topic 4: Financial Models
- Topic 5: Discrete Models
- Topic 6: Open Topic – Share Investments

Students study five topics from the list above, selected by the teacher. All students must study Topics 1, 3, 4, and 5.

**ASSESSMENT****School Based Assessment (70%)**

- Skills and Application Tasks - 40%
- 2 Mathematical Investigations - 30%

**External Assessment (30%)**

- Examination - 30%
- Students undertake a 2-hour external examination in which they answer questions on the following three topics; Statistical Models, Financial Models and Discrete Models.

**SPECIALIST MATHEMATICS**

20 Credits

**PREREQUISITES**

It will be assumed that students will have successfully completed 20-credits of Stage 1 Specialist Mathematics. It is also assumed that those taking Stage 2 Specialist Mathematics are also studying Stage 2 Mathematical Methods or have already completed it.

**WHERE DOES IT LEAD?**

The subject leads to study in a range of tertiary courses such as mathematical sciences, engineering, computer science, and physical sciences. Students envisaging careers in related fields will benefit from studying this subject.

A significant number of tertiary courses list Specialist Mathematics, Stage 2 as either a prerequisite or assumed knowledge. The successful completion of Stage 2 Specialist Mathematics attracts a two point bonus to a student's university aggregate from the South Australian Universities Language, Literacy and Mathematics Bonus Scheme. A maximum of four points is available under this scheme.

**WHAT IS IN THE COURSE?**

Specialist Mathematics draws on and deepens students' mathematical knowledge, skills, and understanding, and provides opportunities for students to develop their skills in using rigorous mathematical arguments and proofs, and using mathematical models. It includes the study of functions and calculus.

The topics in Stage 2 extend students' mathematical experience and their mathematical flexibility and versatility.

Specialist Mathematics topics provide different scenarios for incorporating mathematical arguments, proofs, and problem-solving.

**Topics**

- Topic 1: Mathematical Induction
- Topic 2: Complex Numbers
- Topic 3: Functions and Sketching Graphs
- Topic 4: Vectors in Three Dimensions
- Topic 5: Integration Techniques and Applications
- Topic 6: Rates of Change and Differential Equations.

**ASSESSMENT****School Assessment (70%)**

- Six Skills and Applications Tasks - 50%
- One Mathematical Investigation - 20%

**External Assessment (30%)**

- One 3 hour Examination - 30%

**SCIENCES****BIOLOGY**

20 Credits

**WHERE DOES IT LEAD?**

Biology can also be used as one of the pre-requisite for medicine and other science courses with applications in Biology such as Health Science, Biology, Ecology, Botany, Zoology, Biological Sciences, Biochemical Science, Biomolecular science, Veterinary Science.

**WHAT IS IN THE COURSE?**

In Biology, students integrate current and future challenges providing them with strong problem solving skills. Students also pursue scientific pathways, for example in medical research, veterinary science, food and marine sciences, agriculture, biotechnology, environmental rehabilitation, biosecurity, quarantine, conservation, and ecotourism.

**Topics**

There are four major topics in Biology which include:

- DNA and proteins
- Cells as the Basis of Life
- Homeostasis
- Evolution

Each major topic has a range of sub topics and are as follows:

**DNA and proteins**

- DNA/genes
- DNA replication
- Biological Molecules
- Protein synthesis
- Enzymes and energy
- Mutations
- Genetic engineering
- CRISPR
- PCR
- DNA hybridization

**Cells as the Basis of Life**

- Cell theory
- Types of cells
- Organelles
- Movement through membranes
- Energy in cells
- Mitosis/binary fission
- Meiosis
- Culturing
- Cell cycle control

**Homeostasis**

- Homeostasis
- Negative feedback
- Nervous system
- Hormonal system
- Stimulus response model
- Various stimulus response model examples (i.e. temperature control)

**Evolution**

- The origin of life
- Comparative genomics
- Phylogenetic trees
- Species definition
- Gene pool
- Reproductive isolation and barriers
- Natural selection and evolution
- Genetic drift
- Allopatric and sympatric speciation
- Succession
- Human impacts

**ASSESSMENT****School Based Assessment (70%)**

- Skills and Application Tasks - 40%  
4 x tests – one on each topic
- Folio Tasks - 30%  
1x Science as a Human Endeavour (SHE) Investigation  
2 x Summative Practicals
  - Enzymes Design Practical
  - Deconstruction Practical

**External Assessment (30%)**

- Examination - 30%

**CHEMISTRY**

20 Credits

**WHERE DOES IT LEAD?**

Studying Chemistry opens doors to a wide range of careers. Chemistry is involved in our everyday lives and there is a vast range of jobs and careers open to those who have studied Chemistry both inside and outside the lab. Nobody knows what the roles of the future will look like, but many of them will be created in Chemistry to solve global challenges such as human health, energy and the environment. Chemistry is a good foundation for a wide range of tertiary courses, such as Medical Sciences, Engineering, Science, Environmental Studies and Forensic Science.

**WHAT IS IN THE COURSE?**

Studying Chemistry gives students the exciting opportunity to develop and extend their understanding of how the physical world is chemically constructed, the interaction between human activities and the environment, and the use that human beings make of the planet's resources. The study of Chemistry will help students make informed decisions about how they interact with, and modify the world around them. Students will develop a range of skills that will enable them to question, reflect, and think critically while they investigate and explain phenomena in their everyday lives.

In this Chemistry, students are expected to:

- apply science inquiry skills to design and conduct chemistry investigations using appropriate procedures and safe, ethical working practices
- obtain, record, represent, analyse, and interpret the results of chemistry investigations
- evaluate procedures and results, and analyse evidence

to formulate and justify conclusions

- develop and apply knowledge and understanding of chemical concepts in new and familiar contexts
- explore and understand science as a human endeavour
- communicate knowledge and understanding of chemical concepts, using appropriate terms, conventions, and representations.

**Topics****Topic 1: Monitoring the Environment**

- 1.1 Global Warming and Climate Change
- 1.2 Photochemical Smog
- 1.3 Volumetric Analysis
- 1.4 Chromatography
- 1.5 Atomic Spectroscopy

**Topic 2: Managing chemical processes**

- 2.1 Rates of Reactions
- 2.2 Equilibrium and Yield
- 2.3 Optimising Production

**Topic 3: Organic and Biological Chemistry**

- |                           |                   |
|---------------------------|-------------------|
| 3.1 Introduction          | 3.6 Amines        |
| 3.2 Alcohols              | 3.7 Esters        |
| 3.3 Aldehydes and Ketones | 3.8 Amides        |
| 3.4 Carbohydrates         | 3.9 Triglycerides |
| 3.5 Carboxylic Acids      | 3.10 Proteins     |

**Topic 4: Managing resources**

- 4.1 Energy
- 4.2 Water
- 4.3 Soil
- 4.4 Materials

**ASSESSMENT****School Based Assessment (70%)**

- Investigations Folio - 30%  
Students undertake two practical investigations and one investigation with a focus on science as a human endeavour.
- Skills and Applications Tasks - 40%  
Students undertake four skills and applications tasks.

**External Assessment (30%)**

- Examination - 30%  
Students undertake one 2-hour examination.

**PHYSICS**

20 Credits

**WHERE DOES IT LEAD?**

Physics at Stage 2 prepares students to study Physics at the tertiary level, and for those courses for which Physics is regarded as either a prerequisite or assumed knowledge.

Enable students to make informed decisions about many of the significant issues faced by society today. Such decisions include how South Australia should deal with the nuclear waste from a nuclear power station sent from other countries. As well, a solid grounding in Physics should enable students to make informed decisions about many of the significant issues faced by society today. Physics also provides an excellent grounding in evidence-based logical reasoning and develops skills in critical thinking and attending to detail, making it an excellent preparation for any tertiary course.

Provides an excellent foundation in evidence-based logical reasoning and develops skills in critical thinking and attending to detail, making it an excellent preparation for any tertiary course.

Physics is regarded as one of the enabling sciences, underpinning a great many other disciplines.

Careers using physics include:

- Astro-physics
- Photonics
- Engineering
- Medical Physics
- Geology
- Environmental Science

**WHAT IS IN THE COURSE?**

The content of the course includes sections on

- Motion and Relativity
- Electricity and Magnetism
- Light and Atoms

The topics are divided into 13 sub-topics. Each of the sub-topics relates to an application demonstrating the use of the ideas in practice. Important elements of the course include the design and conduct of practical investigations, researching and critically relating Physics ideas to society, solving Physics related problems and communicating effectively about Physics.

**ASSESSMENT****School Based Assessment (70%)**

- Skills and Applications Tasks - 40%
- Investigations Folio - 30%
- Design Practical and other practical tasks

**External Assessment (30%)**

- Examination - 30%

**PSYCHOLOGY**

20 Credits

**WHERE DOES IT LEAD?**

In general, the skills learnt through Psychology are parallel to those learnt in other science subjects: how to be a critical consumer of information; how to identify psychological processes at work in everyday experiences; how to apply knowledge to real-world situations; how to investigate psychological issues; and how to be an effective communicator. Psychology is relevant wherever contact with other people occurs and it can lead to a broad range of careers, such as counselling, teaching, health professions, journalism, recruitment, law enforcement and advertising.

**WHAT IS IN THE COURSE?**

This subject sits between the life sciences and the humanities and emphasizes the construction of psychology as a scientific enterprise. The course aims to provide an insight into behaviour and so gain a greater understanding of oneself and identify effective actions to address social problems.

**Topics and themes**

- Introduction to Psychology
- Social cognition
- Learning
- Personality
- Psychobiology of Altered States of Awareness
- Healthy Minds

Students develop knowledge and understanding relevant to each of the topics and apply it to social issues and/or personal growth. Investigation designs, methods of assessing psychological responses and ethical issues are also explored in each topic. Students will also develop a range of investigation skills.

**ASSESSMENT****School Based Assessment (70%)**

- Investigations Folio - 30%  
Includes two 1500 word investigations
- Skills and Applications Tasks - 40%  
Includes topic tests, midyear examination and a film analysis

**External Assessment (30%)**

- Examination - 30%

## UNIVERSITY SENIOR COLLEGE

University Senior College is a senior secondary independent school located in the City of Adelaide on the grounds of the University of Adelaide. The College is dedicated to supporting students to take their place in the world through an academic pathway leading to university.

University Senior College supports every student to flourish. We challenge students and personalise their learning. The College is committed to the development of the USC Graduate Attributes which are embedded in the curriculum, the mentoring program, student - led activities and student governance.

USC staff are specialists and many are leaders in their fields. Modelling self-efficacy, staff work collaboratively and purposefully to provide the best opportunities and outcomes for students in the senior years.

The involvement of our community is integral to our success. Students are partners in all aspects of life at USC and our parents and Old Scholars' Association support our community. Our partnership with the University of Adelaide is significant and our goal is to strengthen our collaboration with the University to foster dynamic learning environments.

## USC MISSION

To inspire, empower and nurture lifelong learning

## USC GRADUATE ATTRIBUTES

### USC graduates are:

- Adaptable, resilient and ready to succeed at university
- Effective communicators
- Leaders and collaborators
- Creative, innovative and critical thinkers
- Ethical and interculturally minded

## USC ASPIRATIONS

- Resilient, creative and intrinsically motivated students who are equipped for university.
- Inspirational learning opportunities that support creativity, problem solving and collaboration.
- A genuine partnership with the University of Adelaide, designed to foster a love of learning.
- Passionate and inspirational staff who are leaders in their fields.
- A diverse, cohesive and respectful community.
- Teaching and learning spaces that inspire.
- Exceptional governance and enabling structures support USC as a high performing organisation.
- Build the reputation and the brand of USC as the College of choice for pre-tertiary education.

## USC VALUES

Integrity, Mutual Respect and Diversity

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**UNIVERSITY  
SENIOR  
COLLEGE**  
ADELAIDE

## DISCLAIMER

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