



## Contents

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**Diploma in Agricultural Production**  
Dip.A.P.....259

**Diploma in Natural Resource Management**  
Dip.NR.Mgt.....261

**Diploma in Wine Marketing**  
Dip.Wine Mark.....263

**Bachelor of Agriculture**  
B.Ag. ....265

**Bachelor of Food Technology and Management**  
B.F.T.& M .....268

**Bachelor of Natural Resource Management**  
B.NR.Mgt. ....270

**Bachelor of Oenology**  
B.Oenol.....273

**Bachelor of Rural Enterprise Management**  
B.R.Ent.Mgt. ....274

**Bachelor of Science**  
B.Sc.....276

**Bachelor of Science (Agricultural Science)**  
B.Sc.(Agric.Sc.) .....283

**Bachelor of Science (Animal Science)**  
B.Sc.(Animal Sc.) .....285

**Bachelor of Science (Biomedical Science)**  
B.Sc.(Biomed.Sc.) .....287

**Bachelor of Science (Biotechnology)**  
B.Sc.(Biotech.) .....289

**Bachelor of Science (Ecochemistry)**  
B.Sc.(Ecochem.) .....291

**Bachelor of Science (Evolutionary Biology)**  
B.Sc.(Evol.Biol.).....293

**Bachelor of Science (High Performance Computational Physics)( Honours)**  
B.Sc.(High Perf.Comp.Phys.)(Hons.) ...295

**Bachelor of Science (Jurisprudence)**  
B.Sc.(Jur.) .....297

**Bachelor of Science (Molecular and Drug Design)**  
B.Sc.(Mol.& Drug Des.).....299

**Bachelor of Science (Molecular Biology)**  
B.Sc.(Mol.Biol.) .....301

<b>Bachelor of Science (Nanoscience and Materials)</b>	
B.Sc.(Nanosc.& Mat.).....	303
<b>Bachelor of Science (Optics &amp; Photonics)</b>	
B.Sc.(Optics & Photonics.).....	304
<b>Bachelor of Science (Space Science and Astrophysics)</b>	
B.Sc.(Space Sc.& Astrophysics) .....	306
<b>Bachelor of Science (Sustainable Environments)</b>	
B.Sc.(Sustain.Env.).....	308
<b>Bachelor of Science (Viticulture)</b>	
B.Sc.(Viticult.).....	311
<b>Bachelor of Arts and Bachelor of Science</b>	
B.A./B.Sc.....	313
<b>Bachelor of Wine Marketing</b>	
B.Wine.Mark.....	314

## Undergraduate awards in the Faculty of Sciences

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- Diploma in Agricultural Production
- Diploma in Natural Resource Management
- Diploma in Wine Marketing
- Degree of Bachelor of Agricultural Science\*
- Degree of Bachelor of Agricultural Science (Horticultural Science)\*
- Degree of Bachelor of Agricultural Science (Integrated Pest Management)\*
- Degree of Bachelor of Agricultural Science (Oenology)\*
- Degree of Bachelor of Agricultural Science (Plant Breeding)\*
- Degree of Bachelor of Agricultural Science (Viticultural Science)\*
- Degree of Bachelor of Agriculture
- Degree of Bachelor of Environmental Science\*
- Degree of Bachelor of Food Technology and Management
- Degree of Bachelor of Natural Resource Management
- Degree of Bachelor of Oenology \*
- Degree of Bachelor of Rural Enterprise Management
- Degree of Bachelor of Science
- Degree of Bachelor of Science (Agricultural Science)
- Degree of Bachelor of Science (Animal Science)
- Degree of Bachelor of Science (Biomedical Science)
- Degree of Bachelor of Science (Biotechnology)
- Degree of Bachelor of Science (Ecochemistry)
- Degree of Bachelor of Science (Evolutionary Biology)
- Degree of Bachelor of Science (High Performance Computational Physics)(Honours)
- Degree of Bachelor of Science (Jurisprudence)
- Degree of Bachelor of Science (Molecular and Drug Design)
- Degree of Bachelor of Science (Molecular Biology)
- Degree of Bachelor of Science (Nanoscience and Materials)
- Degree of Bachelor of Science (Optics & Photonics)
- Degree of Bachelor of Science (Space Science & Astrophysics)
- Degree of Bachelor of Science (Sustainable Environments)
- Degree of Bachelor of Science (Viticulture)
- Degree of Bachelor of Arts and Bachelor of Science
- Degree of Bachelor of Wine Marketing

- Honours degree of Bachelor of Agricultural Science
- Honours degree of Bachelor of Agriculture
- Honours degree of Bachelor of Biotechnology
- Honours degree of Bachelor of Environmental Science
- Honours degree of Bachelor of Natural Resource Management
- Honours degree of Bachelor of Science
- Honours degree of Bachelor of Wine Marketing

\* No intake into these programs in 2005.

**Notes on Delegated Authority**

- 1 Council has delegated the power to approve minor changes to the Academic Program Rules to the Executive Deans of Faculties.
- 2 Council has delegated the power to specify syllabuses to the Head of each department or centre concerned, such syllabuses to be subject to approval by the Faculty or by the Executive Dean on behalf of the Faculty. The Head of school or centre may approve minor changes to any previously approved syllabus.



## Academic Program Rules

### 1 Duration of program

The program of study for the diploma shall extend over two years of full-time study or the part-time equivalent

### 2 Admission

#### 2.1 **Particular requirements**

For admission to the Diploma of Agricultural Production an applicant must hold a South Australian Class 1 Drivers Licence or interstate equivalent.

#### 2.2 **Status, exemption and credit transfer**

2.2.1 Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the program for the degree of Diploma of Agricultural Production as the Faculty in each case may determine.

Proficiency status may be granted where the student demonstrates proficiency in the course matter of a course to the satisfaction of the Head of a School, who shall decide the method of assessment after consultation with the Course Coordinator.

Where a student has failed a course at the University of Adelaide or at the former Roseworthy Agricultural College he/she may not apply for proficiency status in the course in lieu of repeating it.

Where status has not been granted a student may request exemption from part of the course. The course coordinator will make all decisions on the granting of exemption.

#### 2.2.2 **Limits on the granting of status**

Normally status will only be considered for courses passed within the previous ten years. Status may be granted on a course for course basis or on the basis of course for group of courses. Status will be granted only for courses which meet the academic requirements of the award towards which credit is sought.

Students must complete a minimum of 24 units towards the award, as defined in 4.1, at the University of Adelaide.

### 3 Assessment and examinations

- 3.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned
- (b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.

3.2 There shall be four classifications of pass in any course for the degrees, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass up to a maximum value of 6 units provided such courses shall not satisfy prerequisite requirements.

- 3.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of Department concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned
- (b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

## 4 Qualification Requirements

### 4.1 **Academic program**

For the award of Diploma in Agricultural Production a student shall complete all courses listed in the program of study for Level I and Level II of the Bachelor of Agriculture as specified under Academic Program Rule 5.2 for that program.

### 4.2 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

### 4.3 **Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## 5 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



## Academic Program Rules

### 1 Duration of Program

The program of study for the diploma shall extend over two years of full-time study or the part-time equivalent

### 2 Admission

#### 2.1 **Status, exemption and credit transfer**

2.1.1 Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the program for the degree of Diploma in Natural Resource Management as the Faculty in each case may determine.

Proficiency status may be granted where the student demonstrates proficiency in the course matter of a course to the satisfaction of the Head of a School, who shall decide the method of assessment after consultation with the Course Coordinator.

Where a student has failed a course at the University of Adelaide or at the former Roseworthy Agricultural College he/she may not apply for proficiency status in the course in lieu of repeating it.

Where status has not been granted a student may request exemption from part of the course. The course coordinator will make all decisions on the granting of exemption.

#### 2.1.2 **Limits on the granting of status**

Normally status will only be considered for courses passed within the previous ten years. Status may be granted on a course for course basis or on the basis of course for group of courses. Status will be granted only for courses which meet the academic requirements of the award towards which credit is sought.

Students must complete a minimum of 24 units towards the award, as defined in 4.1, at the University of Adelaide.

### 3 Assessment and examinations

- 3.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned
- (b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the

candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.

3.2 There shall be four classifications of pass in any course for the degrees, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass up to a maximum value of 6 units provided such courses shall not satisfy prerequisite requirements.

- 3.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of Department concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned
- (b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

### 4 Qualification Requirements

#### 4.1 **Academic Program**

For the award Diploma in Natural Resource Management a student shall complete all courses listed in the program of study for Level I and Level II of the Bachelor of Natural Resource Management as specified under Academic Program Rule 5.2 for that program

#### 4.2 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the

same material, and no course or portion of a course may be counted twice towards an award.

#### **4.3 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

#### **5 Special Circumstances**

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Note: This program is available in the external mode only.

## Academic Program Rules

### 1 Duration of program

The program of study for the diploma, which is offered externally only, shall extend over four years of part-time study.

### 2 Admission

#### 2.1 **Status, exemption and credit transfer**

Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the program for the degree of Diploma in Wine Marketing as the Faculty in each case may determine.

#### 2.2 **Limits on the granting of status**

Normally status will only be considered for courses passed within the previous ten years. Status may be granted on a course for course basis or on the basis of course for group of courses. Status will be granted only for courses which meet the academic requirements of the award towards which credit is sought.

Students must complete a minimum of 24 units towards the award, as defined in 4.1, at the University of Adelaide.

### 3 Assessment and examinations

- 3.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned
- (b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.
- 3.2 There shall be four classifications of pass in any course for the degree as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass for courses of up to 4 units in value, to a maximum of 6 units, provided such courses shall not satisfy prerequisite requirements.

- 3.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned.
- (b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

### 4 Qualification Requirements

#### 4.1 **Academic program**

For the award Diploma in Wine Marketing a student shall complete all courses listed in the program of study for level I and level II of the Bachelor of Wine Marketing as specified under Academic Program Rule 5.2 for that program.

The program of study for students commencing the program prior to 2004 is set out in the Calendar, Handbook of Undergraduate Programs, 2003.

The program of study for students commencing the program prior to 1996 is set out in the Calendar, Volume 2: Handbook of Courses, 1998.

#### 4.2 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

#### **4.3 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

#### **5 Special Circumstances**

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



## Academic Program Rules

### 1 General

There shall be a degree and an Honours degree of Bachelor of Agriculture.

### 2 Duration of program

The program of study for the Bachelor degree shall extend over three years of full-time study or the part-time equivalent and that for the Honours degree over one additional year of full-time study, or, in exceptional circumstances, over two years of part-time study.

### 3 Admission

#### 3.1 **Particular requirement**

For admission to the Bachelor of Agriculture an applicant must hold a South Australian Class 1 Drivers Licence or interstate equivalent.

#### 3.2 **Status, exemption and credit transfer**

Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the program for the degree of Bachelor of Agriculture as the Faculty in each case may determine.

Proficiency status may be granted where the student demonstrates proficiency in the course matter of a course to the satisfaction of the Head of School, who shall decide the method of assessment after consultation with the Course Coordinator.

Where a student has failed a course at the University of Adelaide or at the former Roseworthy Agricultural College he/she may not apply for proficiency status in the course in lieu of repeating it.

Where status has not been granted a student may request exemption from part of the course. The course coordinator will make all decisions on the granting of exemption.

#### 3.2.1 **Limits on the granting of status**

Normally status will only be considered for courses passed within the previous ten years. Status may be granted on a course for course basis or on the basis of course for group of courses. Status will be granted only for courses which meet the academic requirements of the award towards which credit is sought.

Students must complete a minimum of 24 units towards the award, as defined in 5.2, at the University of Adelaide.

### 4 Assessment and examinations

- 4.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned.
- (b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.
- 4.2 There shall be four classifications of pass in any course for the degrees, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass for courses of up to 4 units in value, to a maximum of 7 units. Courses for which a result of Conceded Pass has been obtained may not be presented towards a major in any discipline, nor as a prerequisite.
- 4.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of School concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned
- (b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

## 5 Qualification Requirements

### 5.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

### 5.2 Bachelor of Agriculture

For the degree of Bachelor of Agriculture a student shall pass courses to the value of 72 units as listed for Level I, II and III of the program of study:

#### Level I

##### *semester 1*

AGRIC 1000 Perspectives on Modern Agriculture	3
APP ECOL 1004RW Cell Biology and Genetics	3
PLANT SC 1001RW Chemistry and Introductory Biochemistry A	3

##### *semester 2*

AGRIBUS 1009RW Rural Business Planning A	3
APP ECOL 1003RW Biology of Plants and Animals	3
SOIL&WAT 1000RW Soils and Land Management Systems	3
STATS 1002RW Data Management and Interpretation	3

##### *full year*

AGRONOMY 1006ARW/BRW Agricultural Experience I	3
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#### Level II

##### *semester 1*

AGRIBUS 2033RW Rural Finance and Marketing	4
SOIL&WAT 2012WT Soil and Water Resources	4
SOIL&WAT 2013RW Introduction to Engineering in Agriculture	2

##### *semester 2*

AGRONOMY 2008RW Agricultural Experience II	2
AGRONOMY 2013RW Production Agronomy	4
ANIML SC 2030RW Livestock Production Science	4
PLANT SC 2003WT Microbiology and Invertebrate Biology	4

#### Level III

##### *semester 1*

AGRIBUS 3012RW Rural Business Management	3
AGRONOMY 3020RW Principles and Practice of Communications	3
Plus electives to the value of 6 units chosen from:	
AGRONOMY 3005WT Irrigation Science	3
AGRONOMY 3012RW Advanced Agronomy	3
ANIML SC 3017RW Comparative Animal Physiology	3
APP ECOL 3008WT Integrated Pest Management A	3
PLANT SC 3007WT Introductory Plant and Animal Breeding	3
SOIL&WAT 3002WT Soil Management and Conservation	3
SOIL&WAT 3016WT Soil Ecology and Nutrient Cycling	3

##### *semester 2*

AGRONOMY 3004RW Land Management Systems for the Future	3
Plus electives to the value of 9 units chosen from:	
AGRIBUS 2009WT Issues in Australian Agribusiness	3
AGRIBUS 3010WT International Agribusiness Environment	3
AGRONOMY 3016WT Crop and Pasture Ecology	3
ANIML SC 3015RW Animal Nutrition & Metabolism	3
ANIML SC 3016RW Animal Health and Welfare	3
GEOLOGY 3010 Remote Sensing (S)	3
PLANT SC 3004WT Mineral Nutrition of Plants	3
PLANT SC 3018WT Advanced Plant and Animal Breeding	3
SOIL&WAT 3012WT Soil Water Management	3

Alternative electives are listed below:

##### *semester 1 or 2*

AGRONOMY 3008RW Individual Studies (Ag)	3
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##### *full year*

APP ECOL 3022AEX/BEX Integrated Weed Management	3
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##### *Summer semester/other vacation periods*

AGRONOMY 3026RW Ecology and Management of Rangelands (a)	3
ANIML SC 3018RW Pig Science	3
ANIML SC 3019RW Ecology and Management of Vertebrate Pests (c)	3
ANIML SC 3043RW Biotechnology in the Animal Industries (c)	3

HORTICUL 3004WT Olive Production and Marketing (a)	3
SOIL&WAT 3014WT GIS for Agricultural Science (b)	3

Students may apply to the Program Coordinator to take courses from other programs in the Faculty provided that prerequisites have been satisfied.

(a) July (b) September (c) Summer

### 5.3 Honours degree of Bachelor of Agriculture

- 5.3.1 To be eligible to be admitted to the Honours degree program, a candidate shall complete the requirements for the ordinary degree or equivalent to a standard which is acceptable to the Faculty for the purpose of admission to the Honours degree.
- 5.3.2 A candidate may, subject to the approval of the Head of School concerned, proceed to the Honours degree in one of the following courses:
- ANIML SC 4000ARW/BRW Honours Animal Science (B.Ag.)  
 HORTICUL 4006AWT/BWT Honours Wine and Horticulture(B.Ag.)  
 PLANT SC 4014AWT/BWT Honours Plant and Pest Science (B.Ag.)  
 SOIL&WAT 4002AWT/BWT Honours Soil and Land Systems (B.Ag.)
- or*
- with the approval of the Faculty in each case, in a course taught by another Discipline or School of the University.
- 5.3.3 The work of the Honours year will normally be completed in one year of full-time study. The Faculty may permit a candidate to take two years, but no more, under such conditions as it may determine.
- 5.3.4 A candidate who satisfies the requirements for Honours shall be awarded the Honours degree, but the Faculty shall decide within which of the following classes and divisions the degree shall be awarded:
- |     |                    |
|-----|--------------------|
| 1   | First Class        |
| 2A  | Second Class div A |
| 2B  | Second Class div B |
| 3   | Third Class        |
| NAH | Not awarded.       |

### 5.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## 6 Special Circumstances

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When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Food Technology and Management

Students who commenced their program of study in 2003 and earlier will normally complete their course of study under the provision of the specific program rules current at the time of commencement. Student should consult the *University of Adelaide Calendar - Handbook of Undergraduate Programs 2003*.

On application to the Faculty, continuing students may be permitted to complete their studies under the current academic program rules, with such modifications and stipulations as the Faculty may deem necessary

## Academic Program Rules

### 1 General

The degree of Bachelor of Food Technology and Management may be awarded in the Pass or Honours grade.

### 2 Duration of program

The program for the degree shall extend over four years of full-time study or the part-time equivalent.

### 3 Admission

#### 3.1 **Status, exemption and credit transfer**

Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty be granted such status in appropriate courses in the program for the degree of Bachelor of Food Technology and Management as the Faculty in each case may determine.

### 4 Assessment and examinations

- 4.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned
- (b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.
- 4.2 There shall be four classifications of pass in any course for the degrees, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a pass classification of Conceded Pass for a course up to 4 units in value up to an aggregate value of 7 units. Courses for which a result of Conceded Pass has been obtained may not be presented towards a major in any discipline.

- 4.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of School concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned.
- (b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

### 5 Qualifications requirements

#### 5.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

#### 5.2 **Academic program**

To qualify for the degree a candidate shall satisfactorily present passes in the courses listed below for the four years of the program to a value of not less than 96 units.

**Level I***semester 1*

BIOLOGY 1101 Biology 1: Molecules, Genes and Cells A 3

*or*

BIOLOGY 1102 Biology 1: Molecules, Genes and Cells B 3

CHEM 1100 Chemistry 1A 3

*or*

CHEM 1101 Foundations of Chemistry 1A 3

CHEM ENG 1001 Introduction  
to Process Engineering 3WINEMKTG 1013WT Wine and Food Marketing  
Principles 3*semester 2*

BIOLOGY 1202 Biology 1: Organisms 3

CHEM 1200 Chemistry 1B 3

*or*

CHEM 1201 Foundations of Chemistry 1B 3

FOODT&amp;M 1000RG Introduction to Food Technology 3

STATS 1004 Statistical Practice 1 (Life Sciences) 3

**Level II***semester 1*

BIOCHEM 2106 Biochemistry II (Ag.) A 4

FOODT&amp;M 2001RG Food Engineering Principles 2

PLANT SC 2004WT General Microbiology II 2

WINEMKTG 2037WT Applied Management Science 4

*semester 2*

ANIMAL SC 2029WT Genes and Inheritance 4

FOODT&amp;M 2002WT Nutrition II 4

FOODT&amp;M 2003RG Food Microbiology II 4

**Level III***semester 1*

BIOMET 3000WT Agricultural Experimentation 3

FOODT&amp;M 3003RG Food Preservation and Packaging 3

FOODT&amp;M 3011RG Food Chemistry 3

PLANT SC 3002WT Biotechnology in the Food  
and Wine Industry 2*semester 2*APP ECOL 3017WT Communication  
in the Agri-food Industry 3

FOODT&amp;M 3025RG Animal Food Processing (o)\* 3

FOODT&amp;M 3026RG Plant Food Processing(e)\* 3

FOODT&amp;M 3027RG Sensory Evaluation of Foods 3

WINEMKTG 2011WT Applied Marketing Research II 4

**Level IV**Students must complete courses to the value of at least  
24 units including.*semester 1*

FOODT&amp;M 3021RG Food Product Development 3

WINEMKTG 3014WT Food Marketing 4

*semester 2*

FOODT&amp;M 3014RG Food Quality and Regulation 3

FOODT&amp;M 3025RG Animal Food Processing (o)\* 3

FOODT&amp;M 3026RG Plant Food Processing(e)\* 3

*Full year*FOODT&M 3020WT Research Project  
(Food Technology & Management) 12\* these courses are offered in alternate years: (o) = odd years,  
(e) = even years.**5.3 The Honours Program**5.3.1 The award of the Honours grade shall be made for  
meritorious performance in the program with greatest  
weight given to performance in the later years..5.3.2 The Honours grade may be awarded in one of the following  
classifications:

1 First Class

2A Second Class div A

2B Second Class div B.

**5.4 Graduation**Subject to Chapter 89 of the Statutes, candidates who  
have satisfied the requirements for any award of the  
University shall be admitted to that award at a graduation  
ceremony for the purpose.**6 Special Circumstances**When in the opinion of the Faculty special circumstances  
exist, the Council, on the recommendation of the Faculty in  
each case, may vary any of the provisions of the Academic  
Program Rules for any particular award.



# Bachelor of Natural Resource Management

Students who commenced their program of study in 2003 and earlier will normally complete their course of study under the provision of the specific program rules current at the time of commencement. Student should consult the *University of Adelaide Calendar - Handbook of Undergraduate Programs 2003*.

On application to the Faculty, continuing students may be permitted to complete their studies under the current academic program rules, with such modifications and stipulations as the Faculty may deem necessary

## Academic Program Rules

### 1 General

There shall be a degree and an Honours degree of Bachelor of Natural Resource Management.

### 2 Duration of program

The program of study for the Bachelor degree shall extend over three years of full-time study or the part-time equivalent and that for the Honours degree over one additional year of full-time study, or, in exceptional circumstances, over two years of part-time study.

### 3 Admission

#### 3.1 **Status, exemption and credit transfer**

3.1.1 Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the program for the degree of Bachelor of Natural Resource Management as the Faculty in each case may determine.

Proficiency status may be granted where the student demonstrates proficiency in the course matter of a course to the satisfaction of the Head of a School, who shall decide the method of assessment after consultation with the Course Coordinator.

Where a student has failed a course at the University of Adelaide or at the former Roseworthy Agricultural College he/she may not apply for proficiency status in the course in lieu of repeating it.

Where status has not been granted a student may request exemption from part of the course. The course coordinator will make all decisions on the granting of exemption.

#### 3.1.2 **Limits on the granting of status**

Normally status will only be considered for courses passed within the previous ten years. Status may be granted on a course for course basis or on the basis of course for group of courses. Status will be granted only for courses which

meet the academic requirements of the award towards which credit is sought.

Students must complete a minimum of 24 units towards the award, as defined in 5.2, at the University of Adelaide.

### 4 Assessment and examinations

4.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned

(b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.

4.2 There shall be four classifications of pass in any course for the degree, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a pass classification of Conceded Pass for course of not more than 4 units but a candidate may only present courses for which this result has been obtained up to an aggregate value of 7 units. Courses for which a result of Conceded Pass has been obtained may not be presented towards a major in any discipline.

4.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of School concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned

(b) (b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to

sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

## 5 Qualification Requirements

### 5.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

5.2 For the degree Bachelor of Natural Resource Management a student shall present passes to the value of 72 units from the courses listed below, including all core courses and between 24 and 30 units of Level I courses and between 18 and 24 units of Level II courses:

#### 5.2.1 Level I

##### *semester 1*

APP ECOL 1002RW Field Studies IA	3
APP ECOL 1004RW Cell Biology and Genetics	3
ENV BIOL 1002 Environmental Biology I	3
PLANT SC 1001RW Chemistry and Introductory Biochemistry A	3

##### *semester 2*

APP ECOL 1003RW Biology of Plants and Animals	3
APP ECOL 1006RW Plant and Animal Diversity	3
SOIL&WAT 1000RW Soils and Land Management Systems 1	3
STATS 1002RW Data Management and Interpretation	3

#### 5.2.2 Level II

##### **Core**

##### *semester 1*

ENV BIOL 2001 Evolutionary Biology EBII	4
SOIL&WAT 2011RW Spatial Information and Land Evaluation	4
soil&wat 2012WT Soil and Water Resources	4

##### *semester 2*

ANIML SC 2014RW Fauna, Survey and Management	4
ENV BIOL 2003 Ecology EBII	4
PLANT SC 2003WT Microbiology and Invertebrate Biology	4

#### 5.2.3 Level III

##### **Core**

##### *semester 1*

AGRIBUS 3001RW Economics of Resource Management III	3
AGRONOMY 3020RW Principles and Practice of Communications	3
Electives to the value of 6 units chosen from:	
APP ECOL 3008WT Integrated Pest Management A	3
APP ECOL 3016RW Individual Studies A	3
ENV BIOL 3004 Freshwater Ecology III	3
ENV BIOL 3023RW Conservation Biology	3
ENVT 3009 Introduction to Environmental Impact Assessment	6
SOIL&WAT 3002WT Soil Management & Conservation	3
SOIL&WAT 3016WT Soil Ecology and Nutrient Cycling	3

##### *semester 2*

AGRONOMY 3004RW Land Management Systems for the Future	3
Electives to the value of 9 units chosen from:	
AGRONOMY 3000RW Agroforestry	3
AGRONOMY 3016WT Crop and Pasture Ecology	3
APP ECOL 3003RW Individual Studies B	3
GEOLOGY 3010 Remote Sensing (S)	3

Alternative electives are listed below:

##### *full year*

APP ECOL 3022AEX/BEX Integrated Weed Management	3
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##### *summer semester/other vacation periods*

AGRONOMY 3026RW Ecology and Management of Rangelands (July)	3
ANIML SC 3019RW Ecology and Management of Vertebrate Pests (s)	3
SOIL&WAT 3004WT Environmental Toxicology and Remediation (s)	3
SOIL&WAT 3007WT GIS for Environmental Management (s)	3
SOIL&WAT 3011WT Integrated Catchment Management III (Sept)	3
SOIL&WAT 3014WT GIS for Agricultural Sciences (Sept)	3
SOIL&WAT 3015WT Ecosystem Modelling for Resource and Environmental Management (s)	3

Students may apply to take courses from other programs in the Faculty provided prerequisites have been satisfied.

(s) = summer semester.

### **5.3 Honours degree of Bachelor of Natural Resource Management**

- 5.3.1 To be eligible to be admitted to the Honours degree program, a candidate shall complete the requirements for the Bachelor degree or equivalent to a standard which is acceptable to the Faculty for the purpose of admission to the Honours degree.
- 5.3.2 A candidate may, subject to the approval of the Head of Discipline concerned, proceed to the Honours degree in one of the following courses:
- ANIMAL SC 4003ARW/BRW  
Honours Animal Science (B.NR.Mgt.)
- APP ECOL 4000ARW/BRW  
Honours Plant and Pest Science (B.NR.Mgt.)
- ENV BIOL 4010A/B  
Honours Environmental Biology (B.NR.Mgt.)
- SOIL&WAT 4000AWT/BWT  
Honours Soil and Land Systems (B.NR.Mgt.)
- or*
- with the approval of the Faculty in each case, in a course taught by another Department of the University.
- 5.3.3 The work of the Honours year will normally be completed in one year of full-time study. The Faculty may permit a candidate to take two years, but no more, under such conditions as it may determine.
- 5.3.4 A candidate who satisfies the requirements for Honours shall be awarded the Honours degree, but the Faculty shall decide within which of the following classes and divisions the degree shall be awarded:
- 1 First Class
  - 2A Second Class div A
  - 2B Second Class div B
  - 3 Third Class
  - NAH Not awarded.

### **5.4 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### **6 Special Circumstances**

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



## Academic Program Rules

### 1 General

There shall be a degree of Bachelor of Oenology

### 2 Qualification Requirements

#### 2.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

2.2 It is not necessary for a candidate to take all the courses of any one level simultaneously or to complete all the course set out for one level before enrolling for any courses at the following level, provided that the prerequisite courses have been passed. However, a candidate who desire to take a Level III course before completing all compulsory Level I and II courses must obtain the permission of the Faculty.

#### 2.3 **Academic program**

To qualify for the degree a candidate shall pass courses, listed below, to the value of 96 units, which satisfy the following requirements:

- (a) Level I courses to the value of 24 units *and*
- (b) Level II courses to the value of 24 units in accordance with the rules of the Bachelor of Science (Viticulture)
- (c) Level III and IV courses as listed.

#### 2.3.1 **Level III**

Courses to the value of 24 units:

AGRIBUS 3017WT Business Management	3
CHEM ENG 3007WT Winery Engineering	3
OENOLOGY 3007WT Stabilisation and Clarification	3
OENOLOGY 3016WT Cellar and Winery Waste Management	3
OENOLOGY 3037WT Distillation and Fortified Winemaking	3
OENOLOGY 3047WT Winemaking at Vintage	3
OENOLOGY 3046WT Fermentation Technology	3
VITICULT 3018WT Viticultural Production B	3

#### 2.3.2 **Level IV**

Courses to the value of 12 units Including:

*semester 1*

OENOLOGY 3033WT Industry Experience (Oenology) 4

VITICULT 3005WT Grape Industry Practice, Policy and Communication 2

*semester 2*

OENOLOGY 3003WT Wine Packaging and Quality Management 3

OENOLOGY 3045WT Advances in Oenology 3

And a further 12 units of electives approved by the program coordinator, or 12 unit Honours research project.

#### 2.4 **Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Rural Enterprise Management

## Academic Program Rules

### 1 Duration of program

The program for the degree shall extend over one year of full-time study or the part-time equivalent.

### 2 Admission

2.1 Except as provided in 2.2 below, an applicant for admission to the program of study for the Bachelor of Rural Enterprise Management shall have qualified for the Diploma of Agricultural Production or for the South Australian TAFE Advanced Diploma in Rural Enterprise Management or for an award accepted by the Faculty of Sciences as equivalent to those qualifications for the purpose of this rule.

2.2 The Faculty may, subject to such conditions (if any) as it may wish to impose, accept as a candidate for the Bachelor of Rural Enterprise Management a person who does not qualify under 2.1 above, but has given evidence satisfactory to the Faculty of fitness to undertake the academic program

### 2.3 **Status, exemption and credit transfer**

Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the academic program for the degree of Bachelor of Rural Enterprise Management as the Faculty in each case may determine

### 3 Assessment and examinations

3.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned  
(b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.

3.2 There shall be four classifications of pass in any course for the degrees, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass up to a maximum value of 7 units provided such courses shall not satisfy prerequisite requirements.

3.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of Department concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned.

(b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

### 4 Qualifications requirements

#### 4.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

#### 4.2 **Academic program**

Candidates must pass courses to the value of not less than 24 units including a minimum of 20 units at Level III.

- 4.2.1 All candidates shall complete the compulsory courses:
- |  |   |
|--|---|
| AGRIBUS 3046ARW/BRW Leadership in Agri-industries              | 3 |
| AGRIBUS 3047RW Organisational Management for Rural Enterprises | 3 |
| AGRIBUS 3048RW Quality Management for Rural Enterprises        | 3 |
- 4.2.2 Candidates who have not previously completed the following courses or courses deemed by Faculty to be equivalent to those courses shall complete the following:

AGRIBUS 3049RW Marketing of Rural Commodities	3
WINEMKTG 1015EX Data Analysis for Wine and Food Business	3

4.2.3 Students must complete sufficient electives from the courses listed below to bring to a total value of 24 units the courses presented for the degree. To qualify for the Bachelor of Rural Enterprise Management students must have completed three courses from ONE of the production areas listed below. Choice of electives must be approved by the Program Coordinator.

#### **Electives**

AGRIBUS 2009WT Issues in Australian Agribusiness	3
AGRIBUS 3010WT International Agribusiness Environment	3
AGRIBUS 3012RW Rural Business Management	3
AGRIBUS 3044RW Individual Studies in Rural Enterprise Management	3
FOODT&M 3018WT Food Marketing	3
SOIL&WAT 3014WT GIS for Agricultural Sciences	3
WINEMKTG 2006EX Wine Retail and Distribution Management	3
WINEMKTG 3047EX Internet Marketing and E-Commerce	4

#### **Production Electives**

##### *Agronomy*

AGRONOMY 2013RW Production Agronomy	4
AGRONOMY 3000RW Agroforestry	3
AGRONOMY 3004RW Land Management Systems for the Future	3
AGRONOMY 3012RW Advanced Agronomy	3

##### *Animal Production*

ANIML SC 2030RW Livestock Production Science	4
ANIML SC 3015RW Animal Nutrition & Metabolism	3
ANIML SC 3016RW Animal Health & Welfare	3
ANIML SC 3018RW Pig Science	4
PLANT SC 3007WT Introductory Plant and Animal Breeding	

##### *Horticulture*

HORTICUL 3000WT Production Horticulture (e)*	3
HORTICUL 3001WT Horticulture Systems	3
HORTICUL 3004WT Olive Production and Marketing (MY)*	3

HORTICUL 3042WT Postharvest Horticulture and Marketing (o)*	3
HORTICUL 3047WT Lifestyle Horticulture (e)*	3

\* These courses offered at specified times: (e) = even years, (o) = odd years, MY = mid-year break, (s) = summer semester

#### **4.3 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

#### **5 Special Circumstances**

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When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



Students who commenced their program of study in 2003 and earlier will normally complete their course of study under the provision of the specific program rules current at the time of commencement. Student should consult the *University of Adelaide Calendar - Handbook of Undergraduate Programs 2003*.

On application to the Faculty, continuing students may be permitted to complete their studies under the current academic program rules, with such modifications and stipulations as the Faculty may deem necessary

## Academic Program Rules

### 1 General

- 1.1 There shall be a Bachelor of Science and an Honours Degree of Bachelor of Science.
- 1.2 A candidate may obtain a Bachelor degree, an Honours degree or both.
- 1.3 A graduate who has obtained the Honours degree of Bachelor of Arts, or the Honours degree of Bachelor of Science in the School of Mathematical and Computer Sciences, may not proceed to the Honours degree of Bachelor of Science in the Faculty of Sciences in the same course.

### 2 Duration of programs

The program of study for the degrees shall extend over three years of full-time study or the part-time equivalent and that for the Honours degree over one additional year of full-time study or, in exceptional circumstances, over two years of part-time study.

### 3 Admission

#### 3.1 Status, exemption and credit transfer - all programs

- 3.1.1 Exemption from any part of the program on the first occasion on which a candidate takes a course will be granted only in special cases and on grounds approved by the Faculty.
- 3.1.2 Candidates who have previously passed courses offered in other programs at the University of Adelaide or other recognised tertiary institutions and who wish to count such courses towards their degree may, on written application to the Faculty, be granted status towards such specific degree requirements as the Faculty shall determine, subject to the following conditions:
  - (a) the candidate shall present a range of courses which fulfils the requirements of the relevant Academic Program Rules *and*

- (b) the candidate shall present courses which satisfy the Level three course requirements and the major in a science discipline requirements of the relevant Academic Program Rules and which have not been presented for any other degree.

### 4 Assessment and examinations

- 4.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned.
  - (b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.
- 4.2 There shall be four classifications of pass in any courses offered by the Faculty of Sciences, as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass for courses of up to 4 units in value, to a maximum of 7 units or to a maximum of 4 units for the degree of Bachelor of Science (Jurisprudence). Courses for which a result of Conceded Pass has been obtained may not be presented towards a major in any discipline, nor as a prerequisite.
- 4.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall, unless exempted wholly or partially therefrom by the Head of School concerned, do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned.
  - (b) A candidate who has twice failed to obtain a Pass in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may

prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

## 5 Qualification Requirements

### 5.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

- 5.2 To qualify for the degree a candidate shall, subject to the conditions and modifications specified under 5.3 and 5.4 below, pass courses from 5.6 below to the value of 72 units which satisfy the following requirements:
- A candidate shall present passes in Level I courses to the value of not more than 30 units
  - A candidate shall present passes in Level III courses to the value of at least 24 units
  - A candidate shall complete a major in a science discipline as set out in 5.4 below.
- In all cases, a candidate may substitute an appropriate course chosen from Level II to fulfil the requirements of Level I, or from Level III to fulfil the requirements of Level I or II.
- 5.3 A candidate may, as part of the requirements of 5.2 above, present passes to the value of 8 units in Level I or Level II courses offered by the Faculty of Humanities and Social Sciences, the Faculty of Engineering, Computer and Mathematical Sciences, and the School of Architecture, Landscape Architecture and Urban Design. Passes in Level I or Level II courses to the value of 8 units offered by other Faculties may also be presented provided the enrolment is approved both by the Faculty of Sciences and the other School or Faculty\*.
- \* For entry to Law courses see the Notes to the B.Sc.(Jur.)
- 5.4 To complete a major in a Science discipline a candidate shall present Level III courses, for which a result of Pass, Pass with Credit, Pass with Distinction or Pass with High Distinction has been obtained. No candidate may present the same course towards more than one major. A major must satisfy one of the following criteria:

### *Science Discipline - major requirements*

#### *Anatomical Sciences*

Courses offered by the Department of Anatomical Sciences to the value of at least 9 units.

#### *Biochemistry*

Courses to the value of at least 9 units, which include:

BIOCHEM 3000 Molecular and Structural Biology III	6
BIOCHEM 3001 Cell and Developmental Biology III	6

#### *Botany*

Courses to the value of at least 9 units, which include:

ENV BIOL 3009 Ecophysiology of Plants III	3
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*and*

ENV BIOL 3007 Systematics and Biodiversity	3
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*and/or*

ENV BIOL 3002 Australian Biota: Past, Present and Future	3
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and an additional course if required chosen from the following:

ENV BIOL 3000 Terrestrial Ecology III	3
ENV BIOL 3004 Freshwater Ecology III	3
ENV BIOL 3005 Palaeobiology III	3
ENV BIOL 3006 Research Methods in Environmental Biology III	3
ENV BIOL 3008 Ecological Management and Restoration III	3
ENV BIOL 3010 Marine Ecology III	3
ENV BIOL 3012 Integrated Catchment Management III	3
PLANT SC 3009WT Plant Molecular Biology	6
SOIL&WAT 3015WT Ecosystem Modelling for Resource and Environmental Management.	3

#### *Chemistry*

Courses offered in Chemistry to the value of at least 9 units.

A major in Chemistry is distinct from a major in either Chemical Synthesis or Chemistry of Materials, but a candidate may not count a major in both Chemistry and either Chemical Synthesis or Chemistry of Materials.

#### *Chemical Synthesis*

Courses offered in Chemistry to the value of at least 9 units, which include:

CHEM 3109 Chemical Synthesis IIIA	6
CHEM 3209 Chemical Synthesis IIIB	6

*Chemistry of Materials*

Courses offered in Chemistry to the value of at least 9 units, which include:

CHEM 3110 Chemistry of Materials IIIA	6
CHEM 3210 Chemistry of Materials IIIB	6

*Entomology*

Courses to the value of at least 9 units which include:

APP ECOL 3028WT Insect Ecology	3
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and

ENV BIOL 3002 Australian Biota: Past, Present and Future	3
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with any courses chosen from the following:

ENV BIOL 3006 Research Methods in Environmental Biology III	3
ENV BIOL 3007 Systematics and Biodiversity	3
ENV BIOL 3008 Ecological Management & Restoration III	3

*Environmental Biology*

Courses to the value of at least 9 units, selected from those listed for majors in Botany, Entomology and Zoology.

*Environmental Geology*

Courses to the value of at least 9 units, which include:

GEOLOGY 3010 Remote Sensing	3
GEOLOGY 3014 Surficial Geology III	3
GEOLOGY 3015 Surficial Geology III Field Program	3

*Geology*

Courses to the value of at least 9 units, which include:

GEOLOGY 3013 Tectonics III	3
GEOLOGY 3016 Igneous and Metamorphic Geology III	3
GEOLOGY 3019 Field Geoscience Program III	3

*Geophysics*

Courses to the value of at least 9 units, which include:

GEOLOGY 3008 Theoretical Geophysics III	3
GEOLOGY 3017 Petroleum Exploration III	3
GEOLOGY 3018 Mineral Exploration III	3

*Genetics*

Courses to the value of at least 9 units which include:

GENETICS 3000 Molecular Genetics: Genomes and Gene Expression	6
GENETICS 3006 Human, Developmental and Evolutionary Genetics	6

*Microbiology and Immunology*

Courses to the value of 9 units which include:

MICRO 3000 Infection and Immunity A	6
MICRO 3001 Infection and Immunity B	6

*Molecular Biomedical Science*

Courses to the value of 12 units taken from the courses offered by the disciplines of Biochemistry, Genetics, Microbiology & Immunology, and Physiology. (This major is only available to student wishing to undertake study overseas Students wishing to take out this major must apply in writing to the Faculty and have their program of study approved prior to commencing study overseas).

*Pharmacology*

Courses offered in Clinical & Experimental Pharmacology to the value of at least 9 units.

*Physics*

Courses offered in Physics to the value of at least 9 units, which include:

PHYSICS 3002 Experimental Physics III	3
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and at least two of

PHYSICS 3001 Electromagnetism & Optics III	3
PHYSICS 3004 Quantum Mechanics III	3
PHYSICS 3009 Statistical Mechanics III	2

*Theoretical Physics*

Courses offered in Physics to the value of at least 9 units, which include:

PHYSICS 3004 Quantum Mechanics III	3
PHYSICS 3006 Advanced Dynamics and Relativity	3
PHYSICS 3009 Statistical Mechanics III	2

and at least one of

PHYSICS 3000 Computational Physics III	2
PHYSICS 3003 Mathematical Physics III	2
PHYSICS 3022 Applied Quantum Mechanics III	3

*Physics and Theoretical Physics*

A major in Physics and Theoretical Physics may be obtained by presenting courses offered in Physics to the value of at least 18 units, which include:

PHYSICS 3002 Experimental Physics III	3
PHYSICS 3004 Quantum Mechanics III	3
PHYSICS 3006 Advanced Dynamics and Relativity	3
PHYSICS 3009 Statistical Mechanics III	2

Candidates who do not otherwise qualify for a major in Physics and who have successfully completed Level III courses offered in Physics to the value of at least 12 units

may, at the discretion of the Head of School, be recommended to Faculty for the award of a major in Physics or Theoretical Physics.

*Physiology*

Courses offered in Physiology to the value of at least 9 units.

*Psychology*

Courses offered in Psychology to the value of at least 9 units which include:

PSYCHOL 3000 Psychological Research Methodology III 4

*Zoology*

Courses to the value of at least 9 units, which include:

ENV BIOL 3003 Ecophysiology of Animals III 3

and

ENV BIOL 3007 Systematics and Biodiversity 3

and/or

ENV BIOL 3002 Australian Biota: Past, Present and Future 3

and an additional course if required chosen from the following:

APP ECOL 3028WT Insect Ecology 3

ENV BIOL 3000 Terrestrial Ecology III 3

ENV BIOL 3004 Freshwater Ecology III 3

ENV BIOL 3005 Palaeobiology III 3

ENV BIOL 3006 Research Methods in Environmental Biology III 3

ENV BIOL 3008 Ecological Management and Restoration III 3

ENV BIOL 3010 Marine Ecology III 3

ENV BIOL 3015 Ecosystem Modelling for Resource and Environmental Management 3

5.5 Candidates shall complete their program of study for the degree under the current Academic Program Rules except that candidates who commenced their program of study prior to 2004 may qualify for the degree by fulfilling the requirements of the regulations and schedules in force prior to 2004, with such modifications as the Faculty may deem necessary to take account of changes to courses from 2004 onwards.

Alternatively, candidates enrolled prior to 2004 may complete their program of study under present Academic Program Rules, with such modifications as the Faculty may deem necessary to ensure that courses validly passed under previous regulations and schedules may be counted under the present Academic Program Rules.

Where the syllabus of a unit or option which was passed prior to 2004 significantly overlaps the syllabus of a course to be undertaken in 2004 or a later year, the Faculty of Sciences shall grant such exemption from the requirements of the latter course as is practicable.

**Notes** (not forming part of the Academic Program Rules)

1 Pattern of study

Commencing students are encouraged to enrol in one of the recommended foundation packages which have been developed to ensure appropriate preparation for Level II and III studies. However, provided that they comply with the prerequisites for each course, students may select their own combinations of courses at first and subsequent year levels.

Full-time students normally take courses with an aggregate value of 24 units at each of levels I, II and III. Information on foundation packages is available from the Faculty of Sciences Office.

2 Work required to complete an Adelaide degree (policy of the Faculty of Sciences)

(a) Graduates in another Faculty who wish to qualify for the degree of Bachelor of Science and to count towards that degree courses which have already been presented for another degree may do so, provided that the courses presented fulfil the requirements of 5.2 and 5.3 above, and include a major in a science discipline and Level III courses to the value of at least 24 units which have not been presented for any other degree.

(b) Students coming from other institutions and wishing to obtain a University of Adelaide degree, are required as a minimum to complete Level III courses from 5.6 with an aggregate units value of 24 including a major in a science discipline.

(c) With special permission of the Faculty, a student who has completed most of the degree at the University of Adelaide including Level III courses with an aggregate value of 12 units and a major in a science discipline may be permitted to complete the requirements for the degree at another institution. All applications must be made in writing to the Faculty.

3 Under certain circumstances, and only with prior approval from the Faculty, courses to the value of not more than 6 units selected from the following list may be presented towards the degree of Bachelor of Science in lieu of Level III courses:

AGRONOMY 3026RW Ecology & Management of Rangelands

APP ECOL 3022AEX/BEX Integrated Weed Management

ENV BIOL 3023 Conservation Biology

PATHOL 3003 Pathology IIIHS

PLANT SC 3004WT Mineral Nutrition of Plants

SOIL&WAT 3004WT Environmental Toxicology & Remediation

SOIL&WAT 3007WT GIS for Environmental Management.

Student wishing to present any of these courses towards the B.Sc. must apply in writing to the Faculty Office prior to enrolling in these courses.

## 5.6 Academic program

### Level I

#### 5.6.1 Sciences

##### *semester 1*

BIOLOGY 1101 Biology I : Molecules, Genes and Cells A	3
BIOLOGY 1102 Biology I : Molecules, Genes and Cells B	3
CHEM 1100 Chemistry IA	3
CHEM 1101 Foundations of Chemistry 1A	3
GEOLOGY 1100 Earth's Interior 1	3
PHYSICS 1002 Astronomy 1	3
PHYSICS 1008 Physics Principles and Applications	3
PHYSICS 1100 Physics IA	3
PHYSICS 1101 Physics for the Life and Earth Sciences IA	3
PSYCHOL 1000 Psychology IA	3

##### *semester 2*

BIOLOGY 1201 Biology I: Human Perspectives	3
BIOLOGY 1202 Biology I : Organisms	3
CHEM 1200 Chemistry IB	3
CHEM 1201 Foundations of Chemistry 1B	3
GEOLOGY 1200 Earth's Environment 1	3
PHYSICS 1200 Physics IB	3
PHYSICS 1201 Physics for the Life and Earth Sciences IB	3
PSYCHOL 1001 Psychology IB	3

#### 5.6.2 Mathematical and Computer Sciences

All Level I Mathematical and Computer Sciences courses listed under Academic Program Rule 4.2 of the degree of Bachelor of Mathematical and Computer Sciences.

### Level II

#### 5.6.3 Science

##### *semester 1*

ANAT SC 2104 Cells and Tissues II	4
BIOCHEM 2100 Biochemistry IIA	4
CHEM 2003 Environmental Chemistry II	4
CHEM 2100 Chemistry IIA	4
ENV BIOL 2001 Evolutionary Biology EBII	4
ENV BIOL 2002 Botany EBII	4
GENETICS 2100 Genetics IIA: Foundation of Genetics	4
GEOLOGY 2007 Sedimentary & Structural Geology II	4
MICRO 2004 Microbiology II	4
PHYSICS 2001 Classical Mechanics II	2

PHYSICS 2004 Introductory Quantum Mechanics and Applications II	2
PHYSICS 2100 Physics IIA	4
PHYSIOL 2003 Human Physiology IIA: Heart, Lungs and Circulation	4
PSYCHOL 2001 Psychological Research Methodology II	4
PSYCHOL 2002 Psychology IIA	4
<i>semester 2</i>	
ANAT SC 2105 Comparative Anatomy of Body Systems II	4
BIOCHEM 2200 Biochemistry IIB	4
CHEM 2200 Chemistry IIB	4
ENV BIOL 2000 Zoology EBII	4
ENV BIOL 2003 Ecology EBII	4
GENETICS 2200 Genetics IIB: Function and Diversity of Genomes	4
GEOLOGY 2006 Igneous & Metamorphic Geology II	4
GEOLOGY 2008 Surficial Geology	4
MICRO 2005 Immunology and Virology II	4
PHYSICS 2200 Physics IIB	4
PHYSICS 2002 Classical Fields and Mathematical Methods II	2
PHYSICS 2007 Environmental Physics II	4
PHYSICS 2009 Photonics II	2
PHYSIOL 2004 Human Physiology IIB: Homeostasis and Nervous System	4
PSYCHOL 2003 Psychology IIB	4

#### 5.6.4 Mathematical and Computer Sciences

##### *semester 1*

APP MTH 2000 Differential Equations & Fourier Series	2
APP MTH 2002 Vector Analysis & Complex Analysis*	2

\* also offered in semester 2

##### *semester 2*

APP MTH 2002 Vector Analysis & Complex Analysis	2
APP MTH 2009 Numerical Analysis and Probability and Statistics	2
STATS 2004 Laplace Transforms and Probability and Statistical Methods	2

All Level II Mathematical and Computer Sciences courses, listed under Academic Program Rule 4.2 of the degree of Bachelor of Mathematical and Computer Sciences. The course MATHS 2004 Mathematics IIM may be presented only as four units at Level I except that candidates may not present both MATHS 1101 Mathematics IA with MATHS 1012 Mathematics IB and MATHS 2004 Mathematics IIM for the degree.

<b>Level III</b>	
<b>5.6.5 Science</b>	
<b>Anatomical Sciences</b>	
<i>semester 1</i>	
ANAT SC 3102 Comparative Reproductive Biology of Mammals	3
ANAT SC 3103 Integrative and Comparative Neuroanatomy	3
<i>semester 2</i>	
ANAT SC 3101 Biological Anthropology	3
ANAT SC 3104 Structural Cell Biology	3
<b>Chemistry</b>	
<i>semester 1</i>	
CHEM 3005 Topics in Chemistry IIIA	6
CHEM 3109 Chemical Synthesis IIIA	6
CHEM 3110 Chemistry of Materials IIIA	6
<i>semester 2</i>	
CHEM 3006 Topics in Chemistry IIIB	6
CHEM 3209 Chemical Synthesis IIIB	6
CHEM 3210 Chemistry of Materials IIIB	6
<b>Clinical and Experimental Pharmacology</b>	
<i>semester 1</i>	
PHARM 3010 Pharmacology A III	6
<i>semester 2</i>	
PHARM 3011 Pharmacology B III	6
<b>Environmental Biology</b>	
<i>summer semester</i>	
ENV BIOL 3000 Terrestrial Ecology III	3
ENV BIOL 3005 Palaeobiology III	3
<i>semester 1</i>	
ENV BIOL 3002 Australian Biota: Past, Present and Future	3
ENV BIOL 3003 Ecophysiology of Animals III	3
ENV BIOL 3004 Freshwater Ecology III	3
ENV BIOL 3006 Research Methods in Environmental Biology III	3
<i>semester 2</i>	
ENV BIOL 3007 Systematics and Biodiversity	3
ENV BIOL 3008 Ecological Management & Restoration III	3
ENV BIOL 3009 Ecophysiology of Plants III	3
ENV BIOL 3010 Marine Ecology III	3
ENV BIOL 3012WT Integrated Catchment Management III	3

<b>Geology and Geophysics</b>	
<i>semester 1</i>	
GEOLOGY 3013 Tectonics III	3
GEOLOGY 3016 Igneous and Metamorphic Geology III	3
GEOLOGY 3017 Petroleum Exploration III	3
GEOLOGY 3018 Mineral Exploration III	3
<i>semester 2</i>	
GEOLOGY 3008 Theoretical Physics III	3
GEOLOGY 3010 Remote Sensing (S)	3
GEOLOGY 3014 Surficial Geology III	3
GEOLOGY 3015 Surficial Geology III Field Program	3
GEOLOGY 3019 Field Geoscience Program III	3
<b>Molecular Biosciences</b>	
<i>semester 1</i>	
BIOCHEM 3000 Molecular & Structural Biology III	6
GENETICS 3000 Molecular Genetics: Genomes and Gene Expression	6
MICRO 3000 Infection and Immunity A	6
<i>semester 2</i>	
BIOCHEM 3001 Cell and Developmental Biology III	6
GENETICS 3006 Human, Developmental and Evolutionary Genetics	6
MICRO 3001 Infection and Immunity B	6
<b>Physics</b>	
<i>semester 1</i>	
PHYSICS 3001 Electromagnetism & Optics III	3
PHYSICS 3002 Experimental Physics III	3
PHYSICS 3003 Mathematical Physics	2
PHYSICS 3004 Quantum Mechanics III	3
PHYSICS 3023 Space Science & Astrophysics	3
<i>semester 2</i>	
PHYSICS 3000 Computational Physics	2
PHYSICS 3006 Advanced Dynamics and Relativity	3
PHYSICS 3007 Introduction to Physics Research	3
PHYSICS 3008 Physics of Solid State Devices	2
PHYSICS 3009 Statistical Mechanics	2
PHYSICS 3020 Photonics III	2
PHYSICS 3022 Applied Quantum Mechanics III	2
<b>Physiology</b>	
<i>semester 1</i>	
PHYSIOL 3001 Neurobiology III	6
<i>semester 2</i>	
PHYSIOL 3000 Advanced Systems Physiology	6

## Plant and Pest Science

### semester 2

APP ECOL 3019WT Fungal Biology (e)	3
APP ECOL 3028WT Insect Ecology	3
PLANT SC 3009WT Plant Molecular Biology	6

## Psychology

### semester 1

PSYCHOL 3000 Psychological Research Methodology III	4
PSYCHOL 3001 Environmental Psychology III	2
PSYCHOL 3002 Mind, Brain and Evolution III	2
PSYCHOL 3010 Social Psychology III	2
PSYCHOL 3013 Learning and Behaviour III	2

### semester 2

PSYCHOL 3003 Developmental Psychology III	2
PSYCHOL 3005 Perception and Cognition III	2
PSYCHOL 3006 Psychology: Physiology & Behaviour III	2
PSYCHOL 3009 Metapsychology: Psychology Sciences and Society III	2
PSYCHOL 3014 Individual Differences III	2
PSYCHOL 3015 Human Relations III	2

## Soil and Land Systems

### summer semester

SOIL&WAT 3015WT Ecosystem Modelling for Resource and Environmental Management	3
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Note: (e) = even years only

### 5.6.6 Mathematical and Computer Sciences

All Level III Mathematical and Computer Sciences courses listed under the Academic Program Rule 4.2 of the degree of Bachelor of Mathematical and Computer Sciences.

### 5.7 The Honours degree

5.7.1 To be eligible to be admitted to the Honours degree program, a candidate shall complete the requirements for the degree or equivalent to a standard which is acceptable to the Faculty for the purpose of admission to the Honours degree.

5.7.2 A candidate may, subject to the approval by the Head of the School concerned, proceed to the Honours degree in one of the following courses

ANAT SC 4000A/B Honours Anatomical Sciences
ANIML SC 4004 ARW/BRW Honours Animal Science (BSc)
BIOCHEM 4000A/B Honours Biochemistry
CHEM 4000A/B Honours Chemistry
ENV BIOL 4000A/B Honours Environmental Biology
ENV BIOL 4002A/B Honours Botany and Geology
ENV BIOL 4003A/B Honours Rangeland Science and Management S

GENETICS 4000A/B Honours Genetics

GEOLOGY 4000A/B Honours Geology

GEOLOGY 4001A/B Honours Geophysics

GEOLOGY 4002A/B Honours Geology and Botany

HORTICUL 4003AWT/BWT Honours Wine  
and Horticulture (BSc)

MICRO 4000A/B Honours Microbiology and Immunology

PETROL 4000ATB/BTB Honours Petroleum Geology  
and Geophysics

PHARM 4000A/B Honours Pharmacology

PHYSICS 4000A/B Honours Physics

PHYSICS 4001A/B Honours Mathematical Physics

PHYSIOL 4000A/B Honours Physiology

PLANT SC 4012 AWT/BWT Honours  
Plant and Pest Science (BSc)

5.7.3 A candidate may, subject to the approval of the Faculty in each case, proceed to the Honours degree in a course taught in another Faculty. Such candidates must consult the Head of the School concerned and apply, in writing, to the Faculty, before 30 November in the preceding year for admission to the Honours program.

5.7.4 The work of the Honours program must be completed in one year of full-time study, except where, on the recommendation of the Head/s of the School/s concerned, the Faculty may permit a candidate to complete the work for the Honours degree over two consecutive years, but no more, under such conditions as it may determine.

5.7.5 A candidate who satisfies the requirements for Honours shall be awarded the Honours degree, but the Faculty shall decide within which of the following classes and divisions the degree shall be awarded:

1	First Class
2A	Second Class div A
2B	Second Class div B
3	Third Class
NAH	Not awarded.

### 5.8 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 6 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Agricultural Science)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Agricultural Science)

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed in 2.3 below, to the value of 72 units, which satisfy the following requirements:

- (a) A candidate shall present passes in courses to the value of 24 units at each of level I, II and III.
- (b) A candidate shall complete a major in a discipline as set out in 2.3 below.

#### 2.3 Academic program

##### 2.3.1 Level I

Passes in Level I courses which shall include:

*semester 1*

CHEM 1101 Foundations of Chemistry 1A 3

*or*

CHEM 1100 Chemistry IA 3

BIOLOGY 1101 Biology I: Molecules, Genes and Cells A 3

*or*

BIOLOGY 1102 Biology I: Molecules, Genes and Cells B 3

AGRIC 1000 Perspectives on Modern Agriculture 3

*semester 2*

CHEM 1201 Foundations of Chemistry 1B 3

*or*

CHEM 1200 Chemistry IB 3

BIOLOGY 1202 Biology 1: Organisms 3

GEOLOGY 1200 Earth's Environment 1 3

STATS 1004 Statistical Practice 1 (Life Sciences)\* 3

together with an additional Level I course to the value of 3 points chosen from:

AGRIBUS 1009RW Rural Business Planning A 3

CHEM ENG 1001 Engineering Physics 3

FOOD&M 1000RG Introduction to Food Technology 3

MATHS 1013 Mathematics 1MA 3

PHYSICS 1101 Physics for Life and Earth Sciences 1A 3

WINEMKTG 1013WT Wine and Food Marketing Principles 3

WINEMKTG 1026EX Microeconomic Principles 3

or from level 1 courses offered in the Faculty of Sciences, or in other departments and schools in the University.

\* Statistical Practice I offered in Semester 1 can be substituted if required.

##### 2.3.2 Level II

Passes in Level II courses which shall include:

*semester 1*

BIOCHEM 2106WT Biochemistry II (Agriculture) A 4

ENV BIOL 2006 Botany II 4

SOIL&WAT 2012WT Soil and Water Resources 4

*semester 2*

ANIML SC 2029WT Genes and Inheritance 4

ANIML SC 2030RW Livestock Production Science 4

PLANT SC 2003WT Microbiology & Invertebrate Biology 4

##### 2.3.3 Level III

Passes in Level III courses selected as follows:

*Group 1*

(a) passes (not conceded passes) in:

APP ECOL 3017WT Communication in the Agrifood Industries 3

BIOMET 3000WT Agricultural Experimentation 3

*Group 2*

(b) passes in Level III courses to the value of 9 units in one of the following areas:

Crop and Pasture Science

Horticulture Science

Land Management and Soil Conservation  
Livestock Science  
Pest Science

*Group 3*

- (c) passes in a further Level III courses to the value of 9 units chosen from other discipline majors or from other programs within the Faculty, with the approval of the BSc(Ag.Sc.) program coordinator.

**2.4 The Honours Degree**

Candidates completing the Bachelor of Science (Agricultural Science) to a standard which is acceptable to the Faculty may proceed to the Honours degree in one of the following areas:

Crop and Pasture Science  
Horticulture Science  
Land Management and Soil Conservation  
Livestock Science  
Pest Science

**2.5 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Animal Science)

## Academic Program Rules

<i>These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science</i>		
1	<b>General</b>	
	There shall be a degree of Bachelor of Science (Animal Science)	
2	<b>Qualification Requirements</b>	
2.1	<b>Unacceptable combinations of courses</b>	
	No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.	
	Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.	
2.2	To qualify for the degree a candidate shall pass courses, listed in 2.3 below, to the value of 72 units, which satisfy the following requirement:	
	(a) a candidate shall present passes in courses to the value of 24 units at each of Level I, II and III.	
2.3	<b>Academic program</b>	
2.3.1	<b>Level I</b>	
	Passes in Level I courses which shall include:	
	<i>semester 1</i>	
	AGRIC 1000RW Perspectives on Modern Agriculture 3	
	BIOLOGY 1101 Biology 1: Molecules, Genes and Cells A 3	
	<i>or</i>	
	BIOLOGY 1102 Biology 1: Molecules, Genes and Cells B 3	
	CHEM 1100 Chemistry IA 3	
	<i>or</i>	
	CHEM 1101 Foundations of Chemistry 1A 3	
	PHYSICS 1101 Physics for the Life and Earth Sciences IA 3	
	<i>or</i>	
	Env Biol 1002 Environmental Biology I 3	
	<i>semester 2</i>	
	BIOLOGY 1202 Biology I : Organisms 3	
	CHEM 1200 Chemistry IB 3	
	<i>or</i>	
	CHEM 1201 Foundations of Chemistry 1B 3	
	ANIML SC 1014RW Fauna Management I 3	
	STATS 1004 Statistical Practice 1 (Life Sciences) 3	
	<i>or</i>	
	PHYSICS 1201 Physics for the Life and Earth Sciences 1B 3	
2.3.2	<b>Level II</b>	
	Passes in Level II courses which shall include:	
	<i>semester 1</i>	
	ANIML SC 2031 Companion Animal & Equine Studies 4	
	BIOCHEM 2106 Biochemistry II (Agriculture) A 4	
	ENV BIOL 2001 Evolutionary Biology EBII 4	
	<i>semester 2</i>	
	ANIML SC 2029WT Genes and Inheritance 4	
	ANIML SC 2030RW Livestock Production Science 4	
	PLANT SC 2003WT Microbiology and Invertebrate Biology 4	
2.3.3	<b>Level III</b>	
	Passes in Level III courses which shall include:	
	<i>semester 1</i>	
	ANIML SC 3017RW Comparative Animal Physiology 3	
	ANIML SC 3045RW Animal Breeding & Genetics 3	
	ENV BIOL 3023 Conservation Biology 3	
	<i>semester 2</i>	
	ANIML SC 3015RW Animal Nutrition & Metabolism 3	
	ANIML SC 3016RW Animal Health & Welfare 3	
	and further courses in Animal Welfare and Ethics, and Animal Behaviour.	
2.4	<b>The Honours Program</b>	
	Refer to Academic Program rule 5.7 for the degree of Bachelor of Science.	
2.5	<b>Graduation</b>	
	Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.	

### 3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

# Bachelor of Science (Biomedical Science)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Biomedical Science)

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed in 2.3 below, to the value of 72 units, which satisfy the following requirements:

- (a) A candidate shall present passes in level 1 courses to the value of not more than 24 units
- (b) A candidate shall present passes in level 2 courses to the value of not less than 20 units
- (c) A candidate shall present passes in level 3 courses to the value of not less than 24 units

#### 2.3 Academic program

##### 2.3.1 Level I

Passes in Level I courses which shall include:

CHEM 1100 Chemistry IA	3
<i>and</i>	
CHEM 1200 Chemistry IB	3
BIOLOGY 1101 Biology 1: Molecules, Genes and Cells A	3
<i>or</i>	
BIOLOGY 1102 Biology 1: Molecules, Genes and Cells B	3
<i>and</i>	
BIOLOGY 1201 Biology 1: Human Perspectives	3
together with additional level I courses to the value of 12 units selected in accordance with Academic Program Rules 5.3 and 5.6 for the degree of Bachelor of Science.	

##### 2.3.2 Level II

Passes in Level II courses to the value of not less than 20 units selected as follows:

###### Group 1

Biomedical Science courses to the value of 8 units comprising:

*either*

GENETICS 2106 Genetics IIA (Biomedical Science) 4

*and*

GENETICS 2206 Genetics IIB (Biomedical Science) 4

*or*

MICRO 2101 Microbiology II (Biomedical Science) 4

*and*

MICRO 2201 Immunology and Virology II (Biomedical Science) 4

*or*

PHYSIOL 2101 Human Physiology IIA (Biomedical Science) 4

*and*

PHYSIOL 2201 Human Physiology IIB (Biomedical Science) 4

###### Group 2

(i) Level II courses to the value of not less than 8 units from the following:

ANAT SC 2104 Cells and Tissues II 4

*and*

ANAT SC 2105 Comparative Anatomy of Body Systems II 4

BIOCHEM 2100 Biochemistry IIA 4

*and*

BIOCHEM 2200 Biochemistry IIB 4

MICRO 2004 Microbiology II 4

*and*

MICRO 2005 Immunology and Virology II 4

GENETICS 2100 Genetics IIA: Foundations of Genetics 4

*and*

GENETICS 2200 Genetics IIB: Function and Diversity of Genomes 4

- PHYSIOL 2003 Human Physiology IIA:  
Heart, Lungs and Circulation 4
- and*
- PHYSIOL 2004 Human Physiology IIB:  
Homeostasis and Nervous System 4
- (ii) additional level II courses selected from those offered for the degree of Bachelor of Science, listed in 5.6.3 and 5.6.4, chosen with the approval of the program coordinator

### 2.3.3 Level III

Passes in Level III courses to the value of not less than 24 units selected as follows:

- (i) 12 units from the following which shall constitute a major in Biomedical Science:
- GENETICS 3000 Molecular Genetics:  
Genome and Gene Expression 6
- and*
- GENETICS 3005 Developmental  
and Medical Genetics (Biomedical Science) 6
- MICRO 3102 Infection and Immunity A  
(Biomedical Science) 6
- and*
- MICRO 3202 Infection and Immunity B  
(Biomedical Science) 6
- PHYSIOL 3102 Human Physiology IIIA  
(Biomedical Science) 6
- and*
- PHYSIOL 3202 Human Physiology IIIB  
(Biomedical Science) 6
- (ii) Level III courses to the value of not less than 12 units selected from courses listed in Academic Program Rule 5.6.5 of the Bachelor of Science in Anatomical Sciences, Biochemistry, Chemistry, Clinical and Experimental Pharmacology, Genetics, Microbiology or Physiology.

### 2.4 The Honours Program

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science

### 2.5 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## 3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Biotechnology)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Biotechnology)

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed in 2.3 below, to the value of at least 72 units, which satisfy the following requirements:

- (a) A candidate shall present passes in Level I courses to the value of not less than 21 units
- (b) A candidate shall present passes in Level II courses to the value of not less than 22 units
- (c) A candidate shall present passes in Level III courses to the value of not less than 24 units as follows

#### 2.3 Academic program

##### 2.3.1 Level I

Passes in Level I courses which shall include:

CHEM 1100 Chemistry IA	3
<i>and</i>	
CHEM 1200 Chemistry IB	3
BIOLOGY 1101 Biology I: Molecules, Genes and Cells A	3
<i>or</i>	
BIOLOGY 1102 Biology I: Molecules, Genes and Cells B	3
<i>and</i>	
BIOLOGY 1201 Biology I: Human Perspectives	3
<i>and/or</i>	
BIOLOGY 1202 Biology I: Organisms	3
BIOTECH 1000 Introduction to Biotechnology	3
CHEM ENG 1004 Introduction to Bio-processing	3

together with additional Level I courses to a minimum value of 6 units, selected in accordance with Specific Academic Program Rules 5.3 and 5.6 for the degree of Bachelor of Science.

##### 2.3.2 Level II

- (a) passes in the compulsory courses:
 

BIOCHEM 2205 Biochemistry II (Biotechnology) B	4
BIOTECH 2005 Principles of Biotechnology II	4
MICRO 2002 Microbiology II (Biotechnology)	4
- (b) passes in Level II courses to the value of not less than 10 units, selected from:
 

BIOCHEM 2105 Biochemistry II (Biotech) A	4
MICRO 2203 Immunology and Virology II (Biotechnology)	4

 or in accordance with Academic Program Rule 5.6 for the degree of Bachelor of Science, or selected courses listed for the Bachelor degree of Engineering (Chemical), or courses selected in consultation with and subject to the approval of the program coordinator.

##### 2.3.3 Level III

- (a) passes in the compulsory courses:
 

BIOCHEM 3000 Molecular and Structural Biology III	6
BIOTECH 3000 Biotechnology Practice III	6
- (b) passes in additional Level III courses to the value of not less than 12 units selected in accordance with Specific Academic Program Rule 5.6 for the degree of Bachelor of Science, or selected courses listed for the Bachelor degree of Engineering (Chemical), or courses selected in consultation with and subject to the approval of the program coordinator.

#### 2.4 The Honours Program

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science

#### 2.5 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Ecochemistry)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Ecochemistry).

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed below, to the value of 72 units pass, which satisfy the following

(a) A candidate shall present passes in courses to the value of 24 units at each of Level I, II and III

#### 2.3 Academic Program

##### 2.3.1 Level 1

Passes in Level 1 courses to the value of 18 units which shall include:

BIOLOGY 1101 Biology I: Molecules, Genes and Cells A 3

or

BIOLOGY 1102 Biology I: Molecules, Genes and Cells B 3

BIOLOGY 1202 Biology 1: Organisms 3

or

ENV BIOL 1002 Environmental Biology I 3

CHEM 1100 Chemistry IA 3

or

CHEM 1101 Foundations of Chemistry 1A 3

CHEM 1200 Chemistry IB 3

or

CHEM 1201 Foundations of Chemistry 1B 3

GEOLOGY 1100 Earth's Interior 1 3

GEOLOGY 1200 Earth's Environment 1 3

together with additional Level I courses to the value of 6 units selected in accordance with Academic Program Rules 5.3, 5.6.1 and 5.6.2 for the degree of Bachelor of Science but not including BIOLOGY 1201 Biology I: Human Perspectives.

Note: Students may be permitted to enrol in both BIOLOGY 1202 Biology I: Organism and ENV BIOL 1002 Environmental Biology I, but only with prior approval from the Program Coordinator.

##### 2.3.2 Level II

Passes in Level 2 courses which include:

(i) passes in core courses

*semester 1*

CHEM 2100 Chemistry IIA 4

CHEM 2003 Environmental Chemistry II 4

*semester 2*

CHEM 2200 Chemistry IIB 4

plus an additional course in Analytical Chemistry.

(ii) passes in Level II courses to the value of 8 units from the list below

SOIL&WAT 2012WT Soil & Water Resources 4

or selected in accordance with Academic Program Rule 5.6.3 for the degree of Bachelor of Science, in consultation with and subject to the approval of the program coordinator.

##### 2.3.3 Level III

Passes in Level 3 courses which shall include:

(i) passes in core courses

CHEM 3006 Topics in Chemistry IIIB 6

CHEM 3109 Chemical Synthesis IIIA 6

CHEM 3110 Chemistry of Materials IIIA 6

(ii) passes in Level III courses to the value of 6 units taken from the list below:

ENV BIOL 3015 Ecosystem Modelling for Environmental Management III 3

GEOLOGY 3010 Remote Sensing (S) 3

SOIL&WAT 3002 Soil Management & Conservation 3

SOIL&WAT 3004WT Environmental Toxicology and Remediation 3

SOIL&WAT 3007WT GIS for Environmental Management 3

SOIL&WAT 3012WT Soil Water Management	3
SOIL&WAT 3016WT Soil Ecology and Nutrient Cycling	3
or selected in accordance with Academic Program Rule 5.6.5 for the degree of Bachelor of Science, in consultation with and subject to the approval of the program coordinator.	

**2.4 The Honours Program**

Refer to Academic Program Rule 5.7 for the degree of Bachelor of Science.

**2.5 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

**3 Special Circumstances**

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When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Evolutionary Biology)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Evolutionary Biology).

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed below, to the value of 72 units pass, which satisfy the following

- (a) A candidate shall present passes in courses to the value of 24 units at each of Level I, II and III
- (b) A candidate shall complete a major by completing prescribed courses to the value of 16 units at Level II and 18 units at Level III as set out in 2.3.2. and 2.3.3 below

#### 2.3 Academic Program

##### 2.3.1 Level 1

Passes in Level 1 courses to the value of 18 units which shall include:

*semester 1*

BIOLOGY 1101 Biology I: Molecules, Genes & Cells A 3

*or*

BIOLOGY 1102 Biology I: Molecules, Genes & Cells B 3

CHEM 1100 Chemistry IA 3

*or*

CHEM 1101 Foundations of Chemistry 1A 3

GEOLOGY 1100 Earth's Interior 1 3

*semester 2*

BIOLOGY 1202 Biology 1: Organisms 3

CHEM 1200 Chemistry IB 3

*or*

CHEM 1201 Foundations of Chemistry 1B 3

GEOLOGY 1200 Earth's Environment 1 3

together with additional Level I courses, of which at least 3 units must be chosen from:

*semester 1*

MATHS 1011 Mathematics IA 3

MATHS 1013 Mathematics IMA 3

PHYSICS 1101 Physics for the Life & Earth Sciences IA 3

STATS 1000 Statistical Practice I\* 3

*semester 2*

MATHS 1012 Mathematics IB 3

MATHS 1014 Mathematics IMB 3

PHYSICS 1201 Physics for the Life & Earth Sciences IB 3

STATS 1004 Statistical Practice 1 (Life Sciences) 3

with any additional course selected from the level I courses available under Academic Program Rules 5.3, 5.6.1 and 5.6.2 for the degree of Bachelor of Science.

\* may be taken in either semester 1 or 2

##### 2.3.2 Level II

Passes in Level 2 courses as follows.

for a major in Palaeontology, 12 units from:

ENV BIOL 2000 Zoology EB II 4

*or*

ENV BIOL 2002 Botany EBII 4

ENV BIOL 2001 Evolutionary Biology EBII 4

GEOLOGY 2007 Sedimentary and Structural Geology II 4

with electives to the value of 12 units chosen from:

CHEM 2003 Environmental Chemistry II 4

ENV BIOL 2000 Zoology EB II 4

ENV BIOL 2002 Botany EBII 4

GENETICS 2100 Genetics IIA: Foundations of Genetics\* 4

GENETICS 2200 Genetics IIB: Function & Diversity Genomes\* 4

GEOLOGY 2008 Surficial Geology II 4

\* Students wishing to enrol in GENETICS 3006 Human, Developmental & Evolutionary Genetics as part of the Level III Palaeontology major must enrol in both GENETICS 2100 Genetics IIA: Foundations of Genetics and GENETICS 2200 Genetics IIB: Function & Diversity Genomes.

For a major in Molecular Evolution, 16 units from:

ENV BIOL 2000 Zoology EB II	4
or	
ENV BIOL 2002 Botany EBII	4
ENV BIOL 2001 Evolutionary Biology EBII	4
GENETICS 2100 Genetics IIA: Foundations of Genetics	4
GENETICS 2200 Genetics IIB: Function & Diversity Genomes	4
with electives to the value of 8 units chosen from:	
CHEM 2003 Environmental Chemistry II	4
ENV BIOL 2000 Zoology EB II	4
ENV BIOL 2002 Botany EBII	4
GEOLOGY 2007 Sedimentary and Structural Geology II	4
GEOLOGY 2008 Surficial Geology II	4

### 2.3.3 Level III

Passes in Level 3 courses as follows:

for a major in Palaeontology:

*semester 1*

ENV BIOL 3002 Australian Biota: Past, Present & Future	3
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*semester 2*

ENV BIOL 3007 Systematics & Biodiversity	3
--	---

with electives to the value of 6 units chosen from:

ENV BIOL 3005 Palaeobiology III	3
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plus an additional course in Vertebrate Palaeontology

GEOLOGY 3014 Surficial Geology III	3
------------------------------------	---

plus elective courses to the value of 9 units taken from courses listed in Program Rule 2.3.3 for this degree, in addition to courses listed under Academic Program Rule 5.6.5 for the degree of Bachelor of Science. Suggested offerings include:

GEOLOGY 3010 Remote Sensing (S)	3
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GEOLOGY 3013 Tectonics III	3
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GEOLOGY 3015 Surficial Geology III Field Program	3
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For a major in Molecular Evolution:

*semester 1*

ENV BIOL 3002 Australian Biota: Past, Present & Future	3
--	---

*semester 2*

ENV BIOL 3007 Systematics & Biodiversity	3
--	---

GENETICS 3006 Human, Developmental and Evolutionary Genetics	6
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plus an additional course in Research Issues in Evolutionary Biology

with electives to the value of 9 units taken from courses listed under Academic Program Rule 5.6.5 for the degree of Bachelor of Science. Suggested electives include:

*summer semester*

ENV BIOL 3005 Palaeobiology III	3
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*semester 1*

ENV BIOL 3006 Research Methods in Environmental Biology	3
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GENETICS 3000 Molecular Genetics: Genomes & Gene Expression	6
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GEOLOGY 3013 Tectonics III	3
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GEOLOGY 3014 Surficial Geology III	3
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## 2.4 The Honours Program

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science.

### 3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 4 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

# Bachelor of Science (High Performance Computational Physics)(Honours)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (High Performance Computational Physics) (Honours)

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed in 2.3 below, to the value of 96 units, which satisfy the following requirements:

- (a) A candidate shall present passes in Level I courses to the value of not more than 24 units
- (b) A candidate shall present passes in Level II courses to the value of not less than 20 units
- (c) A candidate shall present passes in Level III courses to the value of not less than 24 units
- (d) A candidate shall present passes in Level IV courses to the value of not less than 24 units.

#### 2.3 Academic program

##### 2.3.1 Level I

Passes in Level I courses which shall include:

*semester 1*

PHYSICS 1100 Physics I A	3
MATHS 1011 Mathematics IA	3
COMP SCI 1008 Computer Science IA	3

*semester 2*

PHYSICS 1200 Physics IB	3
MATHS 1012 Mathematics IB	3
COMP SCI 1009 Computer Science IB	3

together with additional level I courses to the value of 6 units selected in accordance with the Academic Program Rule 5.3 and 5.6 for the degree of Bachelor of Science. A selection from the following courses is recommended:

*semester 1*

CHEM 1100 Chemistry I A	3
APP MTH 1000 Scientific Computing I	3
ELEC ENG 1006 Electrical Engineering I	3

*semester 2*

CHEM 1200 Chemistry IB	3
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##### 2.3.2 Level II

Passes in Level II courses to the value of not less than 20 units which shall include :

*semester 1*

APP MATH 2000 Differential Equations and Fourier Series II	2
APP MATH 2002 Vector Analysis & Complex Analysis *	2
PHYSICS 2001 Classical Mechanics II	2
PHYSICS 2100 Physics II A	4

*semester 2*

PHYSICS 2002 Classical Fields and Mathematical Methods	2
PHYSICS 2200 Physics II B	4

*and at least one of*

APP MTH 2003 Modelling with Differential Equations II	2
COMP SCI 2003 Numerical Methods	3

together with additional level II courses selected in accordance with the Academic Program Rule 5.6 for the degree of Bachelor of Science and subject to the approval of the Program Coordinator. A selection from:

COMP SCI 2000 Computer Systems	2
PURE MATH 2001 Complex Analysis II	2
PURE MATH 2002 Algebra II	2
PURE MATH 2005 Multivariable Calculus II	2

and other Level II courses in Computer Science is recommended.

\* also available in semester 2.

### 2.3.3 Level III

Passes in Level III courses to the value of at least 24 units which shall include:

#### *semester 1*

PHYSICS 3003 Mathematical Physics	2
PHYSICS 3004 Quantum Mechanics III	3

#### *semester 2*

PHYSICS 3000 Computational Physics	2
PHYSICS 3006 Advanced Dynamics and Relativity	3
PHYSICS 3007 Introduction to Physics Research	2
PHYSICS 3009 Statistical Mechanics	2
PHYSICS 3022 Applied Quantum Mechanics III	2

together with additional level III courses to the value of at least 8 units selected in accordance with the Academic Program Rule 5.6 for the degree of Bachelor of Science. A selection from

APP MTH 3000 Computational Mathematics	3
PHYSICS 3001 Electromagnetism and Optics III	3

and other level III courses in Computer Science, Physics, and Pure & Applied Mathematics as recommended.

### 2.3.4 Level IV

An acceptable standard, in accordance with the Academic Program Rule 5.7 for the Bachelor of Science for Honours degrees, in

PHYSICS 4000A/B Honours Physics

*or*

PHYSICS 4001A/B Honours Mathematical Physics  
(including some lecture content from)

COMP SCI 4999A/B Honours Computer Science

### 2.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 3 Special Circumstances

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When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Jurisprudence)

## Academic Program Rules

<p><i>These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science</i></p>	
1	<p><b>General</b></p> <p>There shall be a degree of Bachelor of Science (Jurisprudence)</p>
2	<p><b>Qualification Requirements</b></p>
2.1	<p><b>Unacceptable combinations of courses</b></p> <p>No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.</p> <p>Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.</p>
2.2	<p>To qualify for the degree a candidate shall pass courses to the value of 72 units pass, which satisfy the requirements of 2.3 and 2.4 below.</p>
2.3	<p><b>Academic program</b></p> <p>A candidate shall pass courses to the value of at least 52 units from those listed in 5.6 under the Bachelor of Science which shall include:</p> <ul style="list-style-type: none"><li>(a) Level I courses to the value of not more than 24 units</li><li>(b) Level III courses to the value of not less than 12 units</li><li>(c) A major in a Science discipline as set out in 5.4</li></ul>
2.4	<ul style="list-style-type: none"><li>(a) A candidate shall present the Law course LAW 1001 Introduction to Australian Law</li><li>(b) A candidate shall present the Law course LAW 1003 Law of Contract</li><li>(c) A candidate shall present Law courses to the value of at least 12 units chosen from the following: LAW 1002 Law of Torts, LAW 1004 Law of Crime, LAW 1005 Property Law, and a 4 unit Law Elective</li></ul>
2.5	<p>Credit towards the degree of Bachelor of Science (Jurisprudence) on account of previous studies in Law will be determined by the Faculty of Sciences in accordance with Faculty policy, subject to the requirements of these Academic Program Rules and to the following provisions:</p>
	<ul style="list-style-type: none"><li>(a) Law courses presented for 2.4(a) will count as 4 units at Level II</li><li>(b) Law courses presented for 2.4(b) will count as 4 units at Level II</li><li>(c) Law courses presented for 2.4(c) will count as 12 units at Level III.</li></ul>
2.6	<p>Persons who have completed other qualifications, and graduates in other Faculties who wish to proceed to the degree of Bachelor of Science (Jurisprudence) and to count towards that degree appropriate courses which they have already presented for another qualification may do so subject to the following conditions:</p> <p>They shall present a range of courses which fulfils the requirements of 2.3 above and which have not been presented for any other degree and which, in the opinion of the Faculty, do not contain a substantial amount of the same material as courses which have been presented for any degree.</p>
2.7	<p>There may be a classification of 'Conceded Pass' but a candidate may only present courses for which this result has been obtained up to a value of 4 units.</p>
	<p><b>Notes</b> (not forming part of the Academic Program Rules)</p> <p><b>B.Sc.(Jur.)</b></p> <ul style="list-style-type: none"><li>1 The B.Sc. (Jurisprudence) is designed to serve two purposes:<ul style="list-style-type: none"><li>(a) it allows students to incorporate in a Science degree a range of law studies including courses at third year level</li><li>(b) it is the route for students to take if they wish to obtain Science and Law degrees in a minimum time of five and a half years.</li></ul></li><li>2 Students remain enrolled for the B.Sc. degree while taking Law courses. Students must complete all the requirements for the B.Sc.(Jur.) before they can obtain their LL.B. degree.</li><li>4 For students wishing to take the Degree of Bachelor of Science (Jurisprudence), the change of enrolment from Bachelor of Science to Bachelor of Science (Jurisprudence) normally takes place in the year following completion of the course LAW1001 Introduction to Australian Law. The transfer of enrolment must be approved by a Program Adviser for the Faculty of Sciences and by a Program Adviser for the School of Law.</li></ul>
5	<p><b>Pattern of Study</b></p> <p>Full-time students will normally take their courses according to the following scheme, which involves some overload in first year and possibly in third year:</p>

First year

Level I courses to the value of 21 units, from those listed in Bachelor of Science Academic Program Rule 5.6.1 and 5.6.2 plus LAW 1001 Introduction to Australian Law.

Second year

Level II courses to the value of 16 units from those listed in Bachelor of Science Academic Program Rule 5.6.3 and 5.6.6 plus LAW 1002 Law of Torts and LAW1003 Law of Contract.

Third year

Level I courses to the value of 3 units from those listed in Bachelor of Science Academic Program Rule 5.6 plus Level III courses to the value of 12 units from those listed in Academic Program Rule 5.6 including a major in a Science discipline plus Law courses to the value of 8 units from those listed in 2.4 above with the advice of the Law Program Adviser.

#### **6 Advice from the School of Law**

Before enrolment in the Law courses in the third year of the above scheme, students should consult the Law Program Adviser. This is particularly important for students who wish to proceed to the LL.B. degree. Although Law courses in the third year as above to the value of 12 units are sufficient for the purposes of the degree of B.Sc. (Jurisprudence), completion of the LL.B. degree in minimum time involves some additional overload in the third year.

#### **7 Credit on account of previous studies in the University of Adelaide (Policy of the Faculty of Sciences)**

- (a) Candidates who hold an LL.B. degree and hold no other degree will be given status for 2.4(a) and 2.4(b).
- (b) Candidates who hold an LL.B. degree and also a degree in a Faculty other than Law will be given status for 2.4(a) and 2.4(b) and may, in addition, be granted credit for the purposes of 2.4 on account of appropriate studies for a non-Law degree. Such candidates will be required as a minimum to complete Level III courses from Bachelor of Science Academic Program Rule 5.6 to the value of 12 units including a major in a Science discipline.
- (c) Candidates may also be granted credit towards the degree of B.Sc. (Jurisprudence) on account of studies not presented for a degree.

#### **8 Credit on account of studies in other Institutions (Policy of the Faculty of Sciences)**

With special permission of the Faculty, candidates may be permitted to take equivalent courses at another institution for credit to the Adelaide degree of B.Sc. (Jurisprudence). Candidates may also be granted credit towards the Adelaide degree on account of work already completed at another institution but not presented for another degree or award. The minimum requirements for such candidates is that all Level III courses required by 2.3 and 2.4 (that is, Level III Science courses to the value of 12 units, and the Law courses indicated in 2.4(b) to the value of 12 units) should have been completed after candidates have gained admission to the program for the Bachelor of Science and to the program for the Bachelor of Law at the University of Adelaide. Approval of credit as above for the purposes of the degree of B.Sc. (Jurisprudence) does not imply acceptability for the later purposes of the LL.B. degree, and candidates wishing to proceed to the LL.B. degree should therefore consult the Law Program Adviser.

## **2.8 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## **3 Special Circumstances**

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When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Molecular and Drug Design)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Molecular and Drug Design)

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses listed in 2.3 below, to the value of 72 units, which satisfy the following requirement:

(a) A candidate shall present passes in courses to the value of 24 units at each of Level I, II and III.

#### 2.3 Academic program

##### 2.3.1 Level I

Passes in Level I courses which shall include:

###### *semester 1*

CHEM 1100 Chemistry IA 3

BIOLOGY 1101 Biology 1:  
Molecules, Genes, and Cells A 3

or

BIOLOGY 1102 Biology 1:  
Molecules, Genes, and Cells B 3

###### *semester 2*

CHEM 1200 Chemistry 1B 3

BIOLOGY 1201 Biology 1: Human Perspectives 3

STATS 1000 Statistical Practice I\* 3

together with additional level I courses to the value of 9 units selected in accordance with the Academic Program Rules 5.3 and 5.6 for the degree of Bachelor of Science.

\*STATS 1000 Statistical Practice 1 may be taken in either semester 1 or 2

##### 2.3.2 Level II

Passes in Level II courses which shall include:

###### *Group I*

(i) passes in core courses:

###### *semester 1*

CHEM 2106 Chemistry IIA (Mol. Drug Des.) 4

BIOCHEM 2100 Biochemistry IIA 4

###### *semester 2*

CHEM 2206 Chemistry IIB (Mol. Drug Des.) 4

BIOCHEM 2200 Biochemistry IIB 4

###### *Group II*

(ii) passes in Level II courses to the value of 8 units selected in accordance with Academic Program Rule 5.6 for the degree of Bachelor of Science.

(iii) Group II courses shall be selected in consultation with and subject to the approval of the program coordinator.

##### 2.3.3 Level III

Passes in Level III courses which shall include:

###### *Group I*

(i) passes in the core courses:

###### *semester 1*

BIOCHEM 3000 Molecular & Structural Biology III 6

CHEM 3109 Chemical Synthesis IIIA 6

###### *semester 2*

CHEM 3209 Chemical Synthesis IIIB 6

###### *Group II*

(ii) passes in level III courses to the value of 6 units selected in accordance with Academic Program Rule 5.6 for the degree of Bachelor of Science.

(iii) Group II courses shall be selected in consultation with and subject to the approval of the program coordinator.

A candidate shall complete a major in Chemistry, comprising passes (not conceded passes) in any courses to the value of 9 units selected from Level III courses taught by Chemistry as defined in Academic Program Rule 5.4 of the degree of Bachelor of Science.

##### 2.4 The Honours Program

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science

## **2.5 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## **3 Special Circumstances**

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Molecular Biology)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Molecular Biology)

### 2 Qualification Requirements

#### 2.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree of Bachelor of Science (Molecular Biology) a candidate shall pass courses listed in 2.3 below to the value of at least 72 units which satisfy the following requirements:

- A candidate shall present passes in level 1 courses to the value of not more than 24 units
- A candidate shall present passes in level 2 courses to the value of not less than 20 units
- A candidate shall present passes in level 3 courses to the value of not less than 24 units

#### 2.3 Academic program

##### 2.3.1 Level I

Passes in Level I courses which shall include:

BIOLOGY 1101 Biology 1: Genes, Cells and Molecules A	3
<i>or</i>	
BIOLOGY 1102 Biology 1: Genes, Cells and Molecules B	3
BIOLOGY 1201 Biology 1: Human Perspectives	3
CHEM 1100 Chemistry IA	3
CHEM 1200 Chemistry IB	3

together with additional level I courses to the value of 12 units selected in accordance with the Academic Program Rules 5.3 and 5.6 for the degree of Bachelor of Science.

##### 2.3.2 Level II

Passes in Level II courses to the value of not less than 24 units selected as follows:

###### Group I

- a pass in the core courses  
BIOCHEM 2102 Advanced Molecular Biology A 2  
*and*  
BIOCHEM 2202 Advanced Molecular Biology B 2
- passes in additional Level II Molecular Biology courses to the value of 12 units selected from those below:  
BIOCHEM 2101 Biochemistry II  
(Molecular Biology) A 3  
*and*  
BIOCHEM 2201 Biochemistry II  
(Molecular Biology) B 3  
CHEM 2101 Chemistry IIA (Mol. Biol.) 3  
*and*  
CHEM 2201 Chemistry IIB (Mol. Biol.) 3  
GENETICS 2102 Genetics IIA (Molecular Biology) 3  
*and*  
GENETICS 2202 Genetics IIB (Molecular Biology) 3

###### Group II

- passes in Level II courses to a minimum value of 8 units from those listed in 5.6.3 Sciences courses, or 5.6.4 Mathematical and Computer Sciences courses
- Group II courses shall be selected in consultation with and subject to the approval of the program coordinator

##### 2.3.3 Level III

Passes in Level III courses to the value of not less than 24 units which shall include:

###### Group I

- the core course BIOCHEM 3002 Advanced Molecular Biology III (2 units)
- one of the following Level III Molecular Biology courses:  
BIOCHEM 3003 Genes and Proteins III  
(Molecular Biology) 4  
GENETICS 3002 Molecular Genetics III  
(Molecular Biology) 4

*Group II*

- (iii) passes in courses to the value of not less than 18 units chosen from those listed in 5.6.5 Sciences courses, or level III courses offered by the School of Mathematical and Computer Sciences
- (iv) Group II courses shall be selected in consultation with and subject to the approval of the program coordinator.

2.3.4 A candidate shall complete a major as follows:

- (a) a major in Molecular Biology, comprising passes (not conceded passes) in any courses to the value of 9 units selected from Level III courses taught by Chemistry and Molecular Biosciences, and the course PLANT SC 3009WT Plant Molecular Biology *or*
- (b) a major in a Science discipline as defined in Academic Program Rule 5.4 of the degree of Bachelor of Science.

**2.4 The Honours Program**

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science

**2.5 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

**3 Special Circumstances**

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award



# Bachelor of Science (Nanoscience and Materials)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Nanoscience & Materials).

### 2 Qualification Requirements

#### 2.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed below, to the value of 72 units pass, which satisfy the following

(a) A candidate shall present passes in courses to the value of 24 units at each of Level I, II and III.

#### 2.3 **Academic Program**

##### 2.3.1 **Level 1**

Passes in Level 1 courses to the value of 24 units which shall include:

*semester 1*

CHEM 1100 Chemistry IA 3  
PHYSICS 1100 Physics IA \* 3

*or*

PHYSICS 1101 Physics for the Life & Earth Sciences IA 3

*semester 2*

CHEM 1200 Chemistry IB 3  
PHYSICS 1200 Physics IB \*\* 3

*or*

PHYSICS 1201 Physics for the Life & Earth Sciences IB 3

together with additional Level I courses selected in accordance with Academic Program Rules in 5.6.1 and 5.6.2 for the degree of Bachelor of Science

\* requires MATHS 1011 Mathematics IA as a corequisite

\*\* requires MATHS 1012 Mathematics IB as a corequisite

##### 2.3.2 **Level II**

Passes in Level II courses which shall include

(i) passes in core courses:

*semester 1*

CHEM 2100 Chemistry IIA 4

*semester 2*

CHEM 2200 Chemistry IIB 4

plus an additional course in Analytical Chemistry.

(ii) passes in Level II courses to the value of 12 units selected in accordance with Academic Program Rules in 5.6.3 for the degree of Bachelor of Science, in consultation with and subject to the approval of the program coordinator.

##### 2.3.3 **Level III**

Passes in Level III courses which shall include

(i) passes in core courses:

CHEM 3006 Topics in Chemistry IIIB 6

CHEM 3109 Chemical Synthesis IIIA 6

CHEM 3110 Chemistry of Materials IIIA 6

(ii) passes in Level III courses to the value of 6 units selected in accordance with Academic Program Rules in 5.6.5 for the degree of Bachelor of Science, in consultation with and subject to the approval of the program coordinator.

#### 2.4 **The Honours Program**

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science.

### 3 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 4 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Optics and Photonics)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Optics and Photonics)

### 2 Qualification Requirements

#### 2.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree of Bachelor of Science (Optics & Photonics) a candidate shall pass courses listed in 2.3 below to the value of at least 72 units which satisfy the following requirements:

- (a) A candidate shall present passes in Level I courses to the value of not more than 24 units
- (b) A candidate shall present passes in Level II courses to the value of not less than 20 units
- (c) A candidate shall present passes in Level III courses to the value of not less than 24 units.

#### 2.3 **Academic program**

##### 2.3.1 **Level I**

Passes in Level I courses which shall include:

*semester 1*

MATHS 1011 Mathematics IA	3
PHYSICS 1100 Physics IA	3

*semester 2*

MATHS 1012 Mathematics IB	3
PHYSICS 1200 Physics IB	3

together with additional level I courses to the value of not more than 12 units selected in accordance with Academic Program Rules 5.3 and 5.6 for the degree of Bachelor of Science. A selection from the following courses is recommended:

*semester 1*

APP MTH 1000 Scientific Computing I	3
CHEM 1100 Chemistry IA	3
COMP SCI 1008 Computer Science IA	3
ELEC ENG 1006 Electrical Engineering I	3

*semester 2*

COMP SCI 1009 Computer Science IB	3
CHEM 1200 Chemistry IB	3

##### 2.3.2 **Level II**

Passes in Level II courses to the value of not less than 20 units which shall include:

*Group I*

(i) Level II courses to the value of 14 units which include	
APP MTH 2000 Differential Equations and Fourier SeriesII	2
<i>and</i>	
APP MTH 2002 Vector Analysis and Complex Analysis*	2
PHYSICS 2009 Photonics II	2
PHYSICS 2100 Physics IIA	4
<i>and</i>	
PHYSICS 2200 Physics IIB	4
* available in semester 1 and 2	

*Group II*

(ii) at least 4 units from the following:

ELEC ENG 2007 Signals and Systems	3
ELEC ENG 2008 Electronics II	3
ELEC ENG 2010A/B Practical Electronic Design	3
PHYSICS 2001 Classical Mechanics II	2
PURE MTH 2002 Algebra II	2
STATS 2004 Laplace Transforms and Probability and Statistical Methods	2

(iii) additional courses offered by any Faculty of the University, in consultation with the Program Coordinator.

### 2.3.3 Level III

Passes (not conceded passes) in Level III courses to the value of not less than 24 units which shall include:

#### *Group I*

- (i) Level III courses to the value of 15 units which include:
- |   |   |
|---|---|
| PHYSICS 3001 Electromagnetism & Optics III    | 3 |
| PHYSICS 3002 Experimental Physics III         | 3 |
| PHYSICS 3004 Quantum Mechanics III            | 3 |
| PHYSICS 3007 Introduction to Physics Research | 2 |
| PHYSICS 3008 Physics of Solid State Devices   | 2 |
| PHYSICS 3020 Photonics III                    | 2 |

#### *Group II*

- (ii) At least 6 units from the following:
- |   |   |
|---|---|
| ELEC ENG 3015 Communications, Signals and Systems | 3 |
| ELEC ENG 3016 Control III                         | 3 |
| PHYSICS 3000 Computational Physics III            | 2 |
| PHYSICS 3009 Statistical Mechanics III            | 2 |
| PHYSICS 3022 Applied Quantum Mechanics III        | 2 |

#### *Full Year*

- (iii) ELEC ENG 3019A/B Practical Electrical and Electronic Design III 3  
*and*

Passes in additional Level III courses selected from those offered for the degree of Bachelor of Science listed in Academic Program Rules 5.6.5 and 5.6.6.

### 2.4 The Honours Program

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science

### 2.5 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Space Science and Astrophysics)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Space Science and Astrophysics)

### 2 Qualification Requirements

#### 2.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree of Bachelor of Science (Space Science and Astrophysics) a candidate shall pass courses listed in 2.3 below to the value of 72 units which satisfy the following requirements:

- (a) A candidate shall present passes in level 1 courses to the value of not more than 24 units
- (b) A candidate shall present passes in level 2 courses to the value of not less than 20 units
- (c) A candidate shall present passes in level 3 courses to the value of not less than 24 units.

#### 2.3 **Academic program**

##### 2.3.1 **Level I**

Passes in Level I courses to the value of 24 units which shall include:

MATHS 1011 Mathematics IA	3
MATHS 1012 Mathematics IB	3
PHYSICS 1007 Space Science and Astrophysics I	3
PHYSICS 1100 Physics IA	3
PHYSICS 1200 Physics IB	3

together with additional level I courses to the value of 9 units selected in accordance with the Academic Program Rules 5.3 and 5.6. for the degree of Bachelor of Science.

##### 2.3.2 **Level II**

Passes in Level II courses to the value of not less than 20 units selected as follows:

- (i) passes in the following core courses :
  - semester 1*
  - APP MTH 2000 Differential Equations and Fourier Series 2
  - APP MTH 2002 Vector Analysis and Complex Analysis \* 2
  - PHYSICS 2100 Physics IIA 4
  - \* also available in semester 2
  - semester 2*
  - PHYSICS 2200 Physics IIB 4
  - PHYSICS 2010 Space Science and Astrophysics II 4
- (ii) additional level II courses selected from those offered for the degree of Bachelor of Science, listed in Academic Program Rules 5.6.3 and 5.6.4, chosen with the approval of the program coordinator. The following courses are highly recommended:
  - PHYSICS 2001 Classical Mechanics 2
  - PHYSICS 2002 Classical Fields and Mathematical Methods III 2

##### 2.3.3 **Level III**

Passes (not conceded passes) in Level III courses to the value of not less than 24 units selected as follows:

- (i)
  - PHYSICS 3001 Electromagnetism and Optics III 3
  - PHYSICS 3002 Experimental Physics III 3
  - PHYSICS 3004 Quantum Mechanics III 3
  - PHYSICS 3007 Introduction to Physics Research 3
  - PHYSICS 3009 Statistical Mechanics III 2
  - PHYSICS 3023 Space Science and Astrophysics III 2
- (ii) passes in additional level III courses selected from those offered for the degree of Bachelor of Science, listed in Academic Program Rule 5.6.5 and 5.6.6 , chosen with the approval of the program coordinator.

#### 2.4 **The Honours Program**

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science.

## **2.5 Graduation**

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## **3 Special Circumstances**

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Sustainable Environments)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Sustainable Environments).

### 2 Qualification Requirements

#### 2.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 To qualify for the degree a candidate shall pass courses, listed below, to the value of 72 units pass, which satisfy the following

- (a) A candidate shall present passes in courses to the value of 24 units at each of Level I, II and III
- (b) A candidate shall complete a major by completing prescribed courses to the value of 16 units at Level II and 12 units at Level III as set out in 2.3.2. and 2.3.3 below.

#### 2.3 **Academic Program**

##### 2.3.1 **Level 1**

Passes in Level 1 courses to the value of 18 units which shall include:

BIOLOGY 1101 Biology I: Molecules, Genes and Cells A	3
<i>or</i>	
BIOLOGY 1102 Biology I: Molecules, Genes and Cells B	3
BIOLOGY 1202 Biology 1: Organisms	3
<i>or</i>	
ENV BIOL 1002 Environmental Biology I	3
CHEM 1100 Chemistry IA	3
<i>or</i>	
CHEM 1101 Foundations of Chemistry 1A	3

CHEM 1200 Chemistry IB 3  
*or*

CHEM 1201 Foundations of Chemistry 1B 3  
GEOLOGY 1100 Earth's Interior 1 3  
GEOLOGY 1200 Earth's Environment 1 3

together with additional Level 1 courses, of which at least 3 units must be chosen from:

MATHS 1011 Mathematics IA	3
MATHS 1012 Mathematics IB	3
MATHS 1013 Mathematics IMA	3
MATHS 1014 Mathematics IMB	3
PHYSICS 1101 Physics for the Life & Earth Sciences IA	3
PHYSICS 1201 Physics for the Life & Earth Sciences IB	3
STATS 1000 Statistical Practice I*	3
STATS 1004 Statistical Practice 1 (Life Sciences)	3

with any additional course selected from the level I courses listed in Academic Program Rules 5.6.1 and 5.6.2 for the degree of Bachelor of Science.

\*STATS 1000 Statistical Practice 1 may be taken in either semester 1 or 2

##### 2.3.2 **Level II**

Passes in Level 2 courses as follows:

for a major in Conservation & Wildlife Ecology:

ENV BIOL 2000 Zoology EB II 4

*or*

ENV BIOL 2006 Botany II 4

*plus one of*

ENV BIOL 2001 Evolutionary Biology EBII 4

ENV BIOL 2003 Ecology EBII 4

with additional courses to the value of 8 units chosen from:

CHEM 2003 Environmental Chemistry II 4

ENV BIOL 2000 Zoology EB II 4

ENV BIOL 2001 Evolutionary Biology EBII 4

ENV BIOL 2003 Ecology EB II 4

ENV BIOL 2006 Botany II 4

SOIL&WAT 2011RW Spatial Information and Land Evaluation 4

plus elective courses to the value of 8 units taken from all courses listed in Program Rule 2.3.2 for this degree, in addition to courses listed under Specific Academic Program Rule 5.6.3 for the degree of Bachelor of Science, and any Level II Environmental Studies course.

for a major in Land & Water Management:

CHEM 2003 Environmental Chemistry II	4
SOIL&WAT 2012WT Soil & Water Resources	4

with additional courses to the value of 8 units chosen from:

CHEM 2100 Chemistry IIA	4
CHEM 2200 Chemistry IIB	4
CHEM 2207 Analytical Chemistry II	4
PHYSICS 2007 Environmental Physics	4
SOIL&WAT 2011RW Spatial Information and Land Evaluation	4

plus elective courses to the value of 8 units taken from all courses listed in Program Rule 2.3.2 for this degree, in addition to courses listed under Specific Academic Program Rule 5.6.3 for the degree of Bachelor of Science, and any Level II Environmental Studies course.

for a major in Deep Earth Resources:

GEOLOGY 2006 Igneous & Metamorphic Geology II	4
GEOLOGY 2007 Sedimentary & Structural Geology II	4

with additional courses to the value of 8 units chosen from:

CHEM 2003 Environmental Chemistry II	4
CHEM 2100 Chemistry IIA	4
CHEM 2200 Chemistry IIB	4
CHEM 2007 Analytical Chemistry II	4
GEOLOGY 2008 Surficial Geology II	4
PHYSICS 2007 Environmental Physics	4

plus elective courses to the value of 8 units taken from all courses listed in Program Rule 2.3.2 for this degree, in addition to courses listed under Specific Academic Program Rule 5.6.3 for the degree of Bachelor of Science, and any Level II Environmental Studies course.

Acceptable Level II Environmental Studies courses:

ENV 2005 Environmentalism: Principles & Practice	4
ENV 2008 Environmental Policy in Australia	4
ENV 2009 Introduction to Environmental Impact Assessment	4
ENV 2010 Tourism Development & Sustainability	4

### 2.3.3 Level III

Passes in Level 3 courses as follows:

for a major in Conservation & Wildlife Ecology:

ENV BIOL 3220 Issues in Sustainable Environments	3
ENV BIOL 3023 Conservation Biology	3

with additional courses to the value of 6 units chosen from:

ENV BIOL 3000 Terrestrial Ecology III	3
ENV BIOL 3006 Research Methods in Environmental Biology III	3
ENV BIOL 3008 Ecological Management & Restoration III	3
ENV BIOL 3015 Ecosystem Modeling for Environmental Management III	3
SOIL&WAT 3007WT GIS for Environmental Management	3

plus elective courses to the value of 12 units taken from all courses listed in Program Rule 2.3.3 for this degree, in addition to courses listed under Specific Academic Program Rule 5.6.5 for the degree of Bachelor of Science, and any Level III Environmental Studies course.

for a major in Land & Water Management:

ENV BIOL 3220 Issues in Sustainable Environments	3
SOIL&WAT 3002WT Soil Management & Conservation	3
SOIL&WAT 3012WT Soil Water Management	3

with additional courses to the value of 3 units chosen from:

GEOLOGY 3010 Remote Sensing (S)	3
SOIL&WAT 3004WT Environmental Toxicology & Remediation	3
SOIL&WAT 3007WT GIS For Environmental Management	3
SOIL&WAT 3011WT Integrated Catchment Management	3
SOIL&WAT 3016WT Soil Ecology & Nutrient Cycling	3

plus elective courses to the value of 12 units taken from all courses listed in Program Rule 2.3.3 for this degree, in addition to courses listed under Specific Academic Program Rule 5.6.5 for the degree of Bachelor of Science, and any Level III Environmental Studies course.

for a major in Deep Earth Resources:

ENV BIOL 3220 Issues in Sustainable Environments	3
GEOLOGY 3013 Tectonics III	3
GEOLOGY 3016 Igneous and Metamorphic Geology III	3
GEOLOGY 3019 Field Geoscience Program III	3

and one of:

GEOLOGY 3017 Petroleum Exploration III	3
GEOLOGY 3018 Mineral Exploration III	3

plus elective courses to the value of 9 units taken from all courses listed in Program Rule 2.3.3 for this degree, in addition to courses listed under Academic Program Rule 5.6.5 for the degree of Bachelor of Science, and any Level III Environmental Studies course.

Acceptable Level III Environmental Studies courses:

ENV 3005 Environmentalism: Principles & Practice	6
ENV 3008 Environmental Policy in Australia	6
ENV 3009 Introduction to Environmental Impact Assessment	6
ENV 3010 Tourism Development & Sustainability	6
ENV 3018 Environmental Studies Internship	6

#### **2.4 The Honours Program**

Refer to Academic Program rule 5.7 for the degree of Bachelor of Science.

### **3 Graduation**

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Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### **4 Special Circumstances**

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When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



# Bachelor of Science (Viticulture)

## Academic Program Rules

*These rules should be read in conjunction with Academic Program rules parts 2, 3 and 4 of the Bachelor of Science*

### 1 General

There shall be a degree of Bachelor of Science (Viticulture)

### 2 Qualification Requirements

#### 2.1 **Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

2.2 It is not necessary for a candidate to take all the courses of any one level simultaneously or to complete all the course set out for one level before enrolling for any courses at the following level, provided that the prerequisite courses have been passed. However, a candidate who desire to take a Level III course before completing all compulsory Level I and II courses must obtain the permission of the Faculty.

2.3 To qualify for the degree a candidate shall pass courses, listed below, to the value of 72 units, which satisfy the following requirements:

- (a) A candidate shall present passes in courses to the value of 24 units at each of level I, II and III.

#### 2.4 **Academic program**

##### 2.4.1 **Level I**

Passes in level I courses which shall include:

*semester 1*

BIOLOGY 1101 Biology 1: Molecules, Genes and Cells A 3

*or*

BIOLOGY 1102 Biology 1:Molecules, Genes and Cells B 3

CHEM 1100 Chemistry IA 3

*or*

CHEM 1101 Foundations of Chemistry A 3

CHEM ENG 1001 Introduction to Process Engineering 3

OENOLOGY 1018NW Foundations in Wine Science 3

*semester 2*

CHEM 1200 Chemistry 1B 3

*or*

CHEM 1201 Foundations of Chemistry B 3

BIOLOGY 1202 Biology 1: Organisms 3

GEOLOGY 1200 Earth's Environment 1 3

STATS 1004 Statistical Practice 1 (Life Sciences) 3

##### 2.4.2 **Level II**

Passes in level II courses which shall include:

*semester 1*

BIOCHEM 2106 Biochemistry II (Ag.) A 4

OENOLOGY 20025WT Microbiology for Viticulture and Oenology 4

VITICULT 2002 Viticultural Science 4

*semester 2*

ANIML SC 2029WT Genes and Inheritance 4

OENOLOGY 2022WT Sensory Studies 4

OENOLOGY 2024WT Introductory Winemaking 4

##### 2.4.3 **Level III**

*semester 1*

Passes in level III which shall include:

AGRONOMY 3005WT Irrigation Science 3

APP ECOL 3008WT Integrated Pest Management A 3

SOIL&WAT 3012RW Soil and Water Resources 4

VITICULT 3020WT Table & Drying Grape Production 2

*semester 2*

AGRIBUS 3017WT Business Management for Agricultural Science 3

AGRONOMY 3015WT Viticultural Engineering and Operations 3

PLANT SC 3004WT Mineral Nutrition of Plants 3

VITICULT 3021WT Viticultural Production 3

## 2.5 The Honours Degree

A candidate shall complete the following courses to the value of 24 units:

- (a) Honours Project to 12 or 24 units  
Students who undertake the 12 unit Honours project shall also complete:
- (b) 3 unit Honours Internship
- (c) and electives to the value of 9 units chosen from:
  - APP ECOL 3005WT Plant Disease and Environment 3
  - APP ECOL 3022AEX/BEX Integrated Weed Management 3
  - BIOMET 3001WT Advanced Biometry 3
  - ENV BIOL 3009 Ecophysiology of Plants III 3
  - HORTICUL 3004WT Olive Production and Marketing 3
  - PLANT SC 3004WT Mineral Nutrition of Plants 3
  - SOIL&WAT 3012WT Soil Water Management 3
  - SOIL&WAT 3014WT GIS for Agricultural Science 3
  - SOIL&WAT 3016WT Soil Ecology and Nutrient Cycling 3
  - VITICULT 3020WT Table and Drying Grape Production 2
  - or*
  - PLANT SC 3002WT Biotechnology in the Food and Wine Industries 2
  - VITICULT 7001WT Advances in Viticultural science 3
  - WINEMKTG 3006WT Global Market for Wine III 4

## 2.6 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

## 3 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.



## Academic Program Rules

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*These rules should be read in conjunction with Academic Program Rules parts 2, 3 and 4 of the Bachelor of Science and Academic Program Rule 5.5.4 of the Bachelor of Arts.*

### 1 General

There shall be a degree of Bachelor of Arts and Bachelor of Science.

Students may enrol directly in a program of study leading, after four years of full-time study (or par-time equivalent thereof), to the award of both the degree of Bachelor of Arts and the degree of Bachelor of Science.

### 2 Qualification Requirements

#### **2.1 Unacceptable combinations of courses**

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

Note: A list of unacceptable combinations of courses is available from the Faculty of Sciences.

#### **2.2 Science Component**

To qualify for the award of the degree of B.Sc. students must pass courses listed in Academic Program Rule 5.6 of the Rules for the degree of Bachelor of Science in the Faculty of Sciences to a minimum units value of 52, as follows:

- (a) Level I courses to the value of not less than 12 units
- (b) Level II courses to the value of not less than 16 units - being prerequisites for courses at Level III
- (c) Level III courses to the value of not less than 24 units
- (d) Courses comprising a major in a science discipline, as defined in the Academic Program Rule 5.4 for the degree of B.Sc. in the Faculty of Sciences
- (e) A student must concurrently qualify for both awards.

Students who commence this program but who subsequently decide that they do not wish to proceed with both areas of study may transfer to enrolment in a program for the degree of Bachelor of Science in the Faculty of Sciences where credit of courses completed will be considered on a case by case basis.



# Bachelor of Wine Marketing

Students who commenced their program of study in 2003 and earlier will normally complete their course of study under the provision of the specific program rules current at the time of commencement. Student should consult the *University of Adelaide Calendar - Handbook of Undergraduate Programs 2003*.

On application to the Faculty, continuing students may be permitted to complete their studies under the current academic program rules, with such modifications and stipulations as the Faculty may deem necessary.

## Academic Program Rules

### 1 General

There shall be a degree and an Honours degree of Bachelor of Wine Marketing. A candidate may obtain either degree or both.

### 2 Duration of program

The program for the degree shall extend over three years of full-time study or the part-time equivalent.

### 3 Admission

#### 3.1 **Status, exemption and credit transfer**

3.1.1 Candidates who have previously passed courses in programs in the University or other tertiary educational institutions may, on written application to the Faculty, be granted such status in appropriate courses in the program for the degree of Bachelor of Wine Marketing as the Faculty in each case may determine.

#### 3.1.2 **Limits on the granting of status**

Normally status will only be considered for courses passed within the previous ten years. Status may be granted on a course for course basis or on the basis of course for group of courses. Status will be granted only for courses which meet the academic requirements of the award towards which credit is sought.

Students must complete a minimum of 24 units towards the award, as defined in 5.2, at the University of Adelaide.

#### 3.2 **Articulation with other awards**

3.2.1 A candidate for the Bachelor of Wine Marketing who does not complete the requirements for the Degree but satisfies the requirements for the Diploma in Wine Marketing may be admitted to the Diploma, subject to the student discontinuing candidature for the Degree.

3.2.2 A candidate who has been admitted to the Diploma in Wine Marketing and who subsequently satisfies the requirements for the Bachelor of Wine Marketing must surrender the Diploma before being admitted to the Degree.

### 4 Assessment and examinations

4.1 (a) A candidate shall not be eligible to attend for examination unless written and laboratory or other practical work, where required, has been completed to the satisfaction of the teaching staff concerned  
(b) In determining a candidate's final result in a course the assessors may take into account oral, written, practical or examination work, provided that the candidate has been given notice at the beginning of the course of the way in which the work will be taken into account and of its relative importance in the final result.

4.2 There shall be four classifications of pass in any course for the degree as follows: Pass with High Distinction, Pass with Distinction, Pass with Credit, Pass. In addition there shall be a classification of Conceded Pass for courses of up to 4 units in value, to a maximum of 7 units, provided such courses shall not satisfy prerequisite requirements

4.3 (a) A candidate who fails to pass in a course or who obtains a conceded pass and who desires to take the course again shall do written and laboratory or other work in that course to the satisfaction of the teaching staff concerned  
(b) A candidate who has twice failed to obtain a Pass or higher in the examination in any course shall not enrol for the course again, or for any other course which in the opinion of the Faculty contains a substantial amount of the same material, except by permission of the Faculty and under such conditions as the Faculty may prescribe. For the purpose of this clause a candidate who fails to receive permission to sit for or does not attend the examination in any course after having attended substantially the full program of instruction in it, shall be deemed to have failed to pass the examination. A candidate who obtains a Pass only after being granted permission to enrol for the third time shall not take a course for which that Pass is a prerequisite, save in exceptional circumstances and with the permission of the Faculty.

## 5 Qualification requirements

### 5.1 Unacceptable combinations of courses

No candidate will be permitted to count towards an award any course, together with any other course, which, in the opinion of the Faculty, contains a substantial amount of the same material, and no course or portion of a course may be counted twice towards an award.

### 5.2 Academic Program

To qualify for the degree of Bachelor in Wine Marketing a candidate shall present passes in courses to a minimum value of 72 units which satisfy the following requirements

#### 5.2.1 Level I

##### *semester 1*

ECON 1004 Principles of Microeconomics I 3

*or*

WINEMKTG 1026EX Microeconomic Principles 3

ECON 1008 Business Data Analysis I 3

*or*

WINEMKTG 1015EX Data Analysis for Food and Wine Business 3

OENOLOGY 1000NW/1000EX Introductory Grape and Wine Knowledge 3

WINEMKTG 1013WT/1013EX Wine and Food Marketing Principles 3

##### *semester 2*

ACCTING 1002 Accounting for Decision Makers 3

*or*

WINEMKTG 1008EX Introduction to Managerial and Financial Accounting 3

COMMLAW 1004 Commercial Law I(S) 3

*or*

WINEMKTG 1003EX Legal Issues in Wine Marketing 3

ECON 1000 Principles of Macroeconomics I 3

*or*

WINEMKTG 1063WT Macroeconomic Essentials for Wine and Food Business 3

OENOLOGY 1001NW/1001EX Vineyard and Winery Operations I 3

#### 5.2.2 Level II

##### **Core courses**

##### *semester 1*

OENOLOGY 20004NW Vineyard and Winery Operations II 4

WINEMKTG 2037WT Applied Management Science 4

*or*

AGRIBUS 2016EX Introduction to Business Management 4

##### *semester 2*

OENOLOGY 2018WT/2018EX Fortified Wines, Spirits and Non-grape Beverages 4

WINEMKTG 2011WT/2011EX Applied Marketing Research 4

WINEMKTG 2014WT/2014EX International Marketing of Wine and Agricultural Products 4

plus electives chosen in consultation with the Program Coordinator.

#### 5.2.3 Level III

##### **Core courses**

##### *semester 1*

WINEMKTG 3006WT/3000EX Global Market for Wine 4

##### *semester 2*

WINEMKTG 3028WT/3028EX Winery Business Management III 4

##### **Electives**

Candidates must complete electives to a minimum value of 20 units at least 12 units of which must be at level III and at least 12 units of which must be WINEMKTG courses.

Electives chosen may be from other programs in the Faculty of Sciences or any courses in the Bachelor of Commerce or Bachelor of Economics for which the student is eligible to enrol.

Courses from within the Faculty of Sciences of particular relevance to the program are:

AGRIBUS 2004WT Issues in Australian Agribusiness 4

AGRIBUS 3041WT International Agribusiness Environment III 4

WINEMKTG 2002WT/2002EX Wine and Society 4

WINEMKTG 2003WT/2003EX International Wine Law 4

WINEMKTG 2010WT/2010EX Strategic Marketing Management 4

WINEMKTG 3014WT/3014EX Food Marketing III 4

WINEMKTG 3040WT/3040EX Wine Retail and Distribution Management 4

WINEMKTG 3047WT/3047EX Internet Marketing and E-Commerce 4

WINEMKTG 3049EX Wine & Food Tourism & Festivals 4

WINEMKTG 3065WT Database Marketing for Food and Wine Business 4

It is recommended that students wishing to specialise in marketing include the following courses amongst their electives:

MARKETNG 2011 Consumer Behaviour II 4

*or*

WINEMKTG 2033EX Consumer Behavioural Analysis 4

WINEMKTG 3034WT/3034EX Advertising and Promotion III 4

It is recommended that students wishing to specialise in finance, economics and trade include the following courses amongst their electives:

ECON 2000 International Trade & Investment Policy II 4

ECON 2009 Consumers, Firms and Markets II 4

ECON 3021 International Trade III 4

Note: students without SACE Stage 2 Mathematical Studies must take ECON 1005 Mathematics for Economists I before ECON 2009 Consumers, Firms and Markets II.

### 5.3 The Honours Program

5.3.1 To be eligible to be admitted to the Honours degree program, a candidate shall complete the requirements for the Bachelor degree or equivalent to a standard which is acceptable to the Faculty for the purpose of admission to the Honours degree.

5.3.2 Subject to the approval of the Head of the School of Agriculture and Wine, the candidate will proceed to the Honours degree in the following course:

WINEMKTG 4007AWT/BWT Honours Wine Marketing 24

*or*

WINEMKTG 4008AWT/BWT Honours Wine Marketing 24

5.3.3 A candidate may, subject to the approval of the Heads of the Schools concerned, proceed to the Honours degree taught jointly by the School of Agriculture and Wine and another school. The candidate must apply in writing for the proposed program to be approved in advance by the Faculty.

5.3.4 A candidate for the Honours degree shall attend lectures and pass examinations in accordance with the provisions of these Academic Program Rules.

5.3.5 The work of the Honours year will normally be completed in one year of full-time study. The Faculty may permit a candidate to take two years, but no more, under such conditions as it may determine.

5.3.6 A candidate who is unable to complete the program for the Honours degree within the time allowed, or whose work is unsatisfactory at any stage of the program, or who withdraws from the program shall be reported to the Faculty, which may permit re-enrolment for an Honours degree under such conditions (if any) as it may determine.

5.3.7 There shall be three classifications for the Honours degree, as follows:

1 First Class

2A Second Class div A

2B Second Class div B

3 Third Class

NAH Not awarded.

5.3.8 Candidates may not enrol for a second time for the Honours program if they:

(i) have already qualified for Honours *or*

(ii) have attended for examination but failed to obtain Honours *or*

(iii) have withdrawn from the Honours program unless the Faculty on such conditions as it may determine permits re-enrolment.

### 5.4 Graduation

Subject to Chapter 89 of the Statutes, candidates who have satisfied the requirements for any award of the University shall be admitted to that award at a graduation ceremony for the purpose.

### 6 Special Circumstances

When in the opinion of the Faculty special circumstances exist, the Council, on the recommendation of the Faculty in each case, may vary any of the provisions of the Academic Program Rules for any particular award.

## Bachelor of Science degrees – Graduate Attributes

### Knowledge

- A broad scientific knowledge with a deep understanding of one or more science disciplines, commensurate with the highest international standards in science education.
- To understand the observational and experimental character of science and to have skills in field and laboratory techniques and experimental design.

### Intellectual and social capabilities

- The skills of inquiry, objective criticism, logical thought and problem solving that are considered to be the foundations of the scientific method.
- The ability to communicate scientific information effectively, both orally and in writing.
- To have a high order of numerical and analytical skills.
- To possess scientific curiosity and the attitudes, knowledge and skills necessary for a commitment to life long learning.
- To have experience with learning opportunities made available by new technologies and to be equipped with computing and information technology skills.
- To have the skills required to tackle scientific problems as a member of a team.

### Attitudes and values

- To appreciate the central role of science in society.
- An enthusiasm for, and enjoyment of, the ethos of science and the process of scientific investigation.
- To value the close relationship between scientific research and the development of new knowledge.

## Further Programs in the Faculty of Sciences – Graduate Attributes

These graduate attributes apply to following Academic Programs:

- All Diplomas
  - Bachelor of Agricultural Science (including all specialisations)
  - Bachelor of Agriculture
  - Bachelor of Environmental Science
  - Bachelor of Food Technology and Management
  - Bachelor of Natural Resource Management
  - Bachelor of Rural Enterprise Management
  - Bachelor of Science (Agricultural Science)
  - Bachelor of Science (Animal Science)
  - Bachelor of Science (Sustainable Environments)
  - Bachelor of Science (Viticulture)
  - Bachelor of Wine Marketing.
- Knowledge and understanding of the content of their chosen discipline at levels that are internationally recognised and at the higher level of industry requirement.
  - The ability to analyse, evaluate and synthesise information from a wide variety of sources and experiences, and apply creative and innovative solutions to problems within changing contexts.
  - Numeracy and literacy skills of a high order.
  - Acquisition of the capacity to learn and maintain intellectual curiosity and a commitment to continuous learning throughout their lives.
  - An awareness of ethical, social and cultural contexts and their importance in the exercise of professional skills and responsibilities.
  - The capacity to communicate effectively and to work both independently and cooperatively.
  - The ability to take up a leadership role in the community and a commitment to the highest standards of professional endeavour.
  - Proficiency in the appropriate use of modern technologies within a socially responsible context.