

## Pathway to major in Bioinformatics

Year 1 / Level I (not more than 30 units)				
<b>S2</b>	# + <a href="#">CHEM 1200</a> Chemistry IB <b>OR</b> ##*+ <a href="#">CHEM 1201</a> Foundations of Chemistry IB <b>OR</b> <a href="#">Approved Level I Elective</a>	+ ¥ <a href="#">BIOLOGY 1201</a> Biology I: Human Perspectives <b>OR</b> + ¥ <a href="#">BIOLOGY 1202</a> Biology I: Organisms <b>OR</b> <a href="#">Approved Level I Elective</a>	<a href="#">Approved Level I Elective</a>	<a href="#">PUB HLTH 1001</a> - Health and Illness in Populations ( <i>assumed knowledge for PUB HLTH 2007, PUB HLTH 3011</i> ) <b>OR</b> <a href="#">Approved Level I Elective</a>
<b>S1</b>	#+ <a href="#">CHEM 1100</a> Chemistry IA <b>OR</b> ##*+ <a href="#">CHEM 1101</a> Foundations of Chemistry IA <b>OR</b> <a href="#">Approved Level I Elective</a>	~+ ¥ <a href="#">BIOLOGY 1101</a> Biology I: Molecules, Genes & Cells <b>OR</b> ~ + ¥ <a href="#">BIOLOGY 1401</a> Concepts in Biology <b>OR</b> <a href="#">Approved Level I Elective</a>	<a href="#">Approved Level I Elective</a>	<a href="#">SCIENCE 1400</a> <i>Science or Fiction I</i>
Year 2 / Level II				
<b>S2</b>	> <a href="#">GENETICS 2520</a> Genetics IIB: Function and Diversity of Genomes <b>OR</b> <a href="#">Approved Level II Elective</a>	> <a href="#">BIOCHEM 2501</a> Biochemistry II: Metabolism <b>OR</b> <a href="#">Approved Level II Elective</a>	> <a href="#">MICRO 2501</a> Immunology & Virology II <b>OR</b> <a href="#">Approved Level II Elective</a>	<a href="#">PUB HLTH 2007</a> - Epidemiology for Health and Medical Sciences ( <i>required if intending to complete PUB HLTH 3009 or 3010</i> ) <b>OR</b> <a href="#">Approved Level I or Level II Elective</a>
<b>S1</b>	^ <a href="#">GENETICS 2510</a> Genetics IIA: Foundation of Genetics <b>OR</b> <a href="#">Approved Level II Elective</a>	^ <a href="#">BIOCHEM 2500</a> Biochemistry II: Molecular and Cell Biology <b>OR</b> <a href="#">Approved Level II Elective</a>	> <a href="#">MICRO 2500</a> Microbiology II <b>OR</b> <a href="#">Approved Level II Elective</a>	<a href="#">Approved Level I or Level II Elective</a>
**Global Experience: The Faculty of Sciences recommends students who want to undertake an exchange in an overseas university plan to go in Semester 2 of Level 2 and/or Semester 1 of Level 3.				
Year 3 / Level III				
<b>S2</b>	<a href="#">BIOINF 3000</a> Bioinformatics III	+ Φ Approved level III Bioinformatics course	<a href="#">Approved Level III Elective</a>	<a href="#">Approved Level III Elective</a>
**Global Experience: The Faculty of Sciences recommends students who want to undertake an exchange in an overseas university plan to go in Semester 2 of Level 2 and/or Semester 1 of Level 3.				
<b>S1</b>	<a href="#">BIOINF 3010</a> Genomics Applications III	<a href="#">BIOINF 3005</a> Transcriptomics Applications III ( <b>Not available in 2021</b> )	<a href="#">Approved Level III Elective</a>	<a href="#">Approved Level III Elective</a>
Year 4/ Level IV (24 units)				
Courses to the value of 24 units, chosen from the <a href="#">Bachelor of Science (Honours)</a> . A Research Pathway or Professional Pathway must be chosen in a specialisation area.				

ALL COURSES ARE WORTH 3 UNITS UNLESS OTHERWISE SPECIFIED

### Key

Core Course	Elective Course	Course for Major

# Check [Course Planner](#) or with the Sciences Service Hub to ensure you meet the pre-requisites prior to enrolling into courses.

\* Students who successfully complete CHEM 1101 Foundations of Chemistry IA and CHEM 1201 Foundations of Chemistry IB and who wish to continue their study of Chemistry at Level II will be required to undertake an additional course, CHEM 1312 Foundations of Chemistry IS during Summer School before commencing Level II Chemistry studies.

Φ Approved level III course for Bioinformatics major to the value of 3 units:  
[BIOCHEM 3004](#) Molecular and Structural Biology (Theory) III (3 units) [**Semester 1**]  
[BIOCHEM 3520](#) Cancer, Stem Cells and Development (Theory) III (3 units)  
[GENETICS 3113](#) Genes, Genomes and Molecular Evolution (Theory) III (3 units) [**Semester 1**]  
[GENETICS 3520](#) Gene Expression & Human & Developmental Genetics (Theory) III (3 units)  
[MICRO 3007](#) Infection & Immunity A (Theory) III (3 units) [**Semester 1**]  
[MICRO 3520](#) Infection & Immunity B (Theory) III (3 units)  
[PUB HLTH 3009](#) Experimental Research Design and Analysis (3 units) [**Semester 1**]  
[PUB HLTH 3010](#) Practical Epidemiology in Health Sciences (3 units) [**Semester 1**]  
[PUB HLTH 3011](#) Big Challenges in Public Health (3 units)

> Please ensure you will meet pre-requisites for courses at each level by referring to [Course Planner](#)

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~ Students who are unsuccessful in completing BIOLOGY 1101 Biology I: Molecules, Genes & Cells or BIOLOGY 1401 Concepts in Biology have the opportunity to undertake BIOLOGY 1001 Fundamentals of Biology in Summer School before commencing Level II courses.

+ CHEM 1100 or CHEM 1101 **and** CHEM 1200 or CHEM 1201 **and** BIOLOGY 1101 or BIOLOGY 1401 **and** BIOLOGY 1201 or BIOLOGY 1202 are listed as pre-requisites for BIOCHEM 2500

¥ BIOLOGY 1101 or BIOLOGY 1401 **and** BIOLOGY 1201 or BIOLOGY 1202 are listed as pre-requisites for GENETICS 2510

^ GENETICS 2510 or BIOCHEM 2500 are listed as assumed knowledge for BIOINF 3010, BIOINF 3005 and BIOINF 3000

### Enrolment Advice – General

- It is your responsibility to ensure you are correctly enrolled. Enrolment into courses outside of the Study Plan and Enrolment Advice listed could affect your eligibility to graduate.
- A total of 96 units are required to complete Bachelor of Science (Honours) Direct Entry program.
- No more than 30 units of courses can be completed at Level I.
- At least 24 units of Science courses must be completed at Level III.
- 24 units of courses at level IV must be completed which will include a Research or Professional pathway taken from a specialisation area in the Bachelor of Science (Honours).
- 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.
- There is a limitation on the amount of 'Non-Science' courses that can be presented. **Do not assume that because a course is offered through Sciences, that it automatically counts as 'Science'** (e.g. Animal Science courses). Please refer to your [Program Rules](#).
- No level III course may be used to meet the requirements of more than one major. *(For example, if Soil Ecology and Nutrient Cycling is used to qualify for a Soil Science major, it cannot also be used to qualify for an Ecology Major).*
- Please consult your [Program Coordinator](#) or contact the Sciences Service Hub for advice.

### Enrolment Advice – Courses

- Only ONE of BIOLOGY 1201 Biology I: Human Perspectives or BIOLOGY 1202 Biology I: Organisms may be presented towards the Bachelor of Science.
- The following courses cannot be presented towards the Bachelor of Science:
  - COMP SCI 1003 Internet Computing

### Complementary Majors

The following majors are often pursued by students as well as the above major, as a complementary field:

- Biochemistry
- Chemistry
- Genetics

### Electives and Broadening

You may complete up to 9 units of 'non-science' elective courses at Level I and/or Level II. Of these courses, a maximum of 6 units can be chosen at Level I. Please refer to your Program Rules for electives and all other requirements, including details on how to meet broadening experience <https://calendar.adelaide.edu.au/faculty/sciences>

For information about electives from other Faculties, course restrictions and pre-requisites, search the course planner:

<https://access.adelaide.edu.au/courses/search.asp>

### Global Experience

The University of Adelaide is committed to offering its students the opportunity to study overseas through an International Experience. This experience is available in a wide range of degrees and can include student exchange (for either one or two full semesters), study tours, internships and placements. There are many exciting opportunities in Europe, Asia, the Americas, Africa, and Oceania ranging from a few weeks to a full academic year.

\*\* The Faculty of Sciences recommends students who want to undertake an exchange in an overseas university plan to go in Semester 2 of Level 2 and/or Semester 1 of Level 3. To find opportunities available in your study area click [Study Overseas](#).

### Further Information and Enrolment Advice

#### Sciences Service Hub

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