Bachelor of Agricultural Technology and Management (BATM) - BATMan

QTAC code (Australian and New Zealand applicants): Toowoomba campus: 907231; External: 907445

CRICOS code (International applicants): 108983C

	On-campus	External
Start:	Semester 1 (February) Semester 2 (July)	Semester 1 (February) Semester 2 (July)
Campus:	Toowoomba	-
Fees:	Commonwealth supported place International full fee paying place	Commonwealth supported place International full fee paying place
Residential school:	Mandatory	Mandatory
Standard duration:	3 years full-time, 6 years part-time	

Notes:

In 2023 the program follows the Semester calendar. The Academic Calendar and Important Dates webpage will allow you to view and download a copy of the important dates for the Semester calendar.

Contact us

Future Australian and New Zealand students	Future International students	Current students
Ask a question Freecall (within Australia): 1800 269 500 Phone (from outside Australia): +61 7 4631 5315 Email: study@usq.edu.au	Ask a question Phone: +61 7 4631 5543 Email: international@usq.edu.au	Ask a question Freecall (within Australia): 1800 007 252 Phone (from outside Australia): +61 7 4631 2285 Email usq.support@usq.edu.au

Program aims

The Bachelor of Agricultural Technology and Management (BATM) will produce job ready graduates who have the expertise and practical skills to apply and develop new and emerging agricultural technologies in both crop and animal production settings, and deliver outcomes that are safe, effective and financially and environmentally sustainable to address industry needs.

Program objectives

On completion of this program, students should be able to:

- Evaluate, adapt and utilise knowledge and skills that underpin the agricultural production sector, including knowledge of emerging agricultural technologies, agricultural science, data science and business management to achieve key outcomes.
- Evaluate operational management of agricultural production systems and identify opportunities for system enhancement through the integration of new and emerging technologies.
- Communicate effectively across a diverse range of stakeholders using oral, written and technology-based approaches and work effectively across multidisciplinary teams within the agricultural production sector.
- Integrate and apply discipline expertise to address production, financial, environmental and social challenges within the agricultural production system.
- Appraise systems in agricultural production, operations and their associated supporting technologies and make informed decisions to ensure their use in an efficient and safe manner.

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- Engage in lifelong learning through reflection, self-education and professional development, and be accountable for their personal and professional actions by managing personal performance.
- Make guided judgements in their professional practice when identifying and responding to cultural, ethical and social issues including those relevant to indigenous peoples and those of diverse cultures and backgrounds.

Australian Qualifications Framework

The Australian Qualifications Framework (AQF) is a single national, comprehensive system of qualifications offered by higher education institutions (including universities), vocational education and training institutions and secondary schools. Each AQF qualification has a set of descriptors which define the type and complexity of knowledge, skills and application of knowledge and skills that a graduate who has been awarded that qualification has attained, and the typical volume of learning associated with that qualification type.

This program is at AQF Qualification Level 07. Graduates at this level will have broad and coherent knowledge and skills for professional work and/or further learning.

The full set of levels criteria and qualification type descriptors can be found by visiting www.aqf.edu.au.

Program Information Set

View UniSQ's admission criteria, student profiles and a summary of all offers made under Course Admission Information Set via the QTAC website.

Admission requirements

To be eligible for admission, applicants must satisfy the following requirements:

- Have achieved a minimum Australian Tertiary Admission Rank (ATAR) of **65.6**, or equivalent qualification.^

- English Language Proficiency requirements for Category 2.

Applicants are advised to also address the following:

- Assumed knowledge expectations: English and General Mathematics (Units 3 & 4, C) or equivalent.
- Recommended Prior Study: One of Agricultural Science, Biological Science, Chemistry or Physics (Units 3 & 4, C) or equivalent.

All students are required to satisfy the applicable English language requirements.

If students do not meet the English language requirements they may apply to study a University-approved English language program. On successful completion of the English language program, students may be admitted to an award program.

^ These are determined by the University for specific programs each Semester. The 2023 ATAR and tertiary entrance ranks are based on agreed QTAC schedules which assess formal study at Year 12 or equivalent level, tertiary, preparatory, professional or vocational qualifications or work experience, as detailed in the QTAC Assessment of Qualifications Manual and QTAC Assessor Guidelines.

Adjustment factors may help you get into the program of your choice by increasing your entrance rank. The additional points don't apply to all applicants or all programs. Please read the information about UniSQ's Adjustment Factors carefully to find out what you may be eligible for.

Program fees

Commonwealth supported place

A Commonwealth supported place is where the Australian Government makes a contribution towards the cost of a students' higher education and students pay a student contribution amount, which varies depending on

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the courses undertaken. Students are able to calculate the fees for a particular course via the Course Fee Schedules.

Commonwealth Supported students may be eligible to defer their fees through a Government loan called HECS-HELP.

International full fee paying place

International students pay full fees. Full fees vary depending on the courses that are taken and whether they are studied on-campus, external or online. Students are able to calculate the fees for a particular course via the Course Fee Schedules.

Program structure

The program consists of 24 units comprised of:

- Five core courses (2 courses worth 0.5 units each)
- Production Technology 12-unit extended major

And a choice of:

- Eight units of electives;
- Two 4-unit minors from: Agricultural Systems, Animal Production, Computing, Crop Production, Data Analytics, Food Technology or Geographic Information Systems;
- One 4-unit Minor from: Agricultural Systems, Animal Production, Computing, Crop Production, Data Analytics, Food Technology or Geographic Information Systems and four units of Electives.

Program completion requirements

Students must satisfactorily complete 24 credit points of units, of which a minimum of 7 units are Level 3 courses.

Some courses have mandatory attendance requirements.

Required time limits

Students have a maximum of 9 years to complete this program.

Core courses

The courses that comprise the core studies program are shown in the following table:

Course Name and Code	Semester(s) Offered			
	Toowoomba	Springfield	External	Online
Core Courses				
AGR1109 Professionalism in Agriculture *	1,2			1,2
AGR2109 Practical Investigations in Agricultural Technology	1		1	
AGR2209 Innovation and Entrepreneurship in Agriculture *	2			2
AGR3109 Agricultural Technology Industry Placement			1,2	
AGR3209 Agricultural Technology and Management Project	2			2

Footnotes

* 0.5–unit course

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Production Technology Extended 12-unit Major courses

Course Name and Code	Semester(s) Offered			
	Toowoomba	Springfield	External	Online
Major Courses				
STA1003 Fundamental Statistics §	1,2	2		1,2,3
CSC1401 Foundation Programming £	1,2,3	1,2		1,2,3
GIS1402 Geographic Information Systems £	1	1		1,3
SVY1110 Introduction to Global Positioning System	2	2		2
AGR1104 Farm Safety and Operations 1 *	1		1	
AGR2104 Farm Safety and Operations 2 *	1,2		1,2	
AGR2302 Agricultural Machinery	1			1
AGR2202 Instrumentation and Automation in Agriculture	2		2	
AGR2008 Business Principles for Agriculture				2
AGR3305 Precision and Smart Technologies in Agriculture	2			2
AGR3105 Smart Data Farming	1			1
LAW3600 Agricultural Technologies and the Law	1			1
AGR3302 Sensors and Technology in Animal Production	2		2	

Footnotes

§ Unavailable online in S3 2023

£ In Semester 3, 2023 this course will be delivered as a Transition (9 week) semester, commencing on 13 November 2023 and concluding on 12 January 2024

* 0.5–unit course

Minor Studies

A minor study is a coherent group of four units of courses that provides students with an additional breadth of study in their program.

Before undertaking any course or minor, students should ensure that all enrolment requirements are satisfied.

The following minor studies are available in the Bachelor of Agricultural Technology and Management:

- Agricultural Systems
- Animal Production
- Computing
- Crop Production
- Data Analytics
- Food Technology
- Geographic Information Systems

IT requirements

For information technology requirements, please refer to the minimum computing standards.

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Other program requirements

This program requires students to work with animals and in outdoor environments. For their protection, students must be immunised for:

- Tetanus
- Q-fever (unless the student has proven immunity – tested prior to vaccination)

Residential schools

The attendance requirement of residential schools within this degree is indicated by the following letters: R = Recommended; HR = Highly Recommended; M = Mandatory. To find out more about residential schools, visit the Residential School Schedule to view specific dates for your degree, or visit the Policy and Procedure Library.

If you are enrolled in the External study mode in this degree, you will have the opportunity to come on-campus for residential schools, where you will attend workshops and tutorials, use the facilities and meet staff and other students.

The courses below include residential school:

Core Courses

- AGR2109 Practical Investigations in Agricultural Technology

Production Technology Extended 12-unit major

- AGR1104 Farm Safety and Operations 1
- AGR2104 Farm Safety and Operations 2
- AGR2202 Instrumentation and Automation in Agriculture

Animal Production 4-unit minor

- AGR1101 Animal Health, Welfare and Behaviour
- AGR2203 Animal Nutrition
- AGR3202 Animal Reproduction
- BIO2103 Biology 2

Crop Production 4-unit minor

- AGR2304 Plant Breeding
- BIO1101 Biology 1
- BIO2202 Plant Physiology
- BIO3318 Plant Microbe Interactions

Food Technology 4-unit minor

- BIO3811 Food Product Development
- BIO3821 Food Quality Assurance

Credit

Exemptions/credit will be assessed based on the UniSQ Credit and Exemption Procedure.

Full-time recommended enrolment pattern - Semester 1 start

To satisfy the requirements of the program students must complete all of the Academic and Practice courses in the following table that shows the recommended enrolment patterns for on-campus and external students

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for our Toowoomba campus. Students following a non-standard enrolment pattern should click on the course link in the table below to ascertain if a course is offered in another term.

Course	Year of program and semester in which course is normally studied						Residential school	Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
Year 1								
CSC1401 Foundation Programming £	1	1,2,3			1	1,2,3		
GIS1402 Geographic Information Systems £	1	1			1	1,3		
Minor course or elective	1	1			1	1		
AGR1109 Professionalism in Agriculture * +	1	1,2			1	1,2		
AGR1104 Farm Safety and Operations 1 ^ * +	1	1	1	1			M	
STA1003 Fundamental Statistics §	1	1,2			1	1,2,3		Enrolment is not permitted in STA1003 if STA2300 or S TA8170 or STA6200 or STA1004 has been previous ly completed. Students en rolled in the BACT, or under taking the Accounting Major in the BBCM, are not eligible for enrolment.
Minor course or elective @	1	2			1	2		
SVY1110 Introduction to Global Positioning System	1	2			1	2		
AGR2202 Instrumentation and Automation in Agriculture ^	1	2	1	2			M	
Year 2								
Minor course or elective %	2	1			2	1		
Minor course or elective <	2	1			2	1		
AGR2302 Agricultural Machinery	2	1			2	1		
AGR2109 Practical Investigations in Agricultural Technology #	2	1	2	1			M	Pre-requisite or Co-requisite: AGR1104 and AGR2104
AGR2104 Farm Safety and Operations 2 ^ * +	2	1,2	2	1,2			M	
Minor course or elective	2	2			2	2		
AGR3305 Precision and Smart Technologies in Agriculture	2	2			2	2		
AGR2008 Business Principles for Agriculture					2	2		
AGR2109 Practical Investigations in Agricultural Technology #	2	2	2	2			M	Pre-requisite or Co-requisite: AGR1104 and AGR2104
AGR2209 Innovation and Entrepreneurship in Agriculture *	2	2			2	2		Pre-requisite or Co-requisite: AGR2008
Year 3								
Minor course or elective ~	3	1			3	1		
AGR3105 Smart Data Farming	3	1			3	1		
LAW3600 Agricultural Technologies and the Law	3	1			3	1		
AGR3109 Agricultural Technology Industry Placement			3	1,2				
Minor course or elective	3	2			3	2		
Minor course or elective	3	2			3	2		
AGR3302 Sensors and Technology in Animal Production	3	2	3	2			HR	
AGR3209 Agricultural Technology and Management Project	3	2			3	2		

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Footnotes

£ In Semester 3, 2023 this course will be delivered as a Transition (9 week) semester, commencing on 13 November 2023 and concluding on 12 January 2024
* 0.5–unit course
\+ These 0.5–unit courses build initial knowledge and are not sequential
^ Mandatory residential school for external students
§ Unavailable online in S3 2023
@ Recommended AGR2301 Agricultural Science from Agricultural Systems minor
% Recommended AGR2303 Agronomy from Agricultural Systems minor
< Recommended AGR2201 Animal Production Systems from Agricultural Systems minor
This course will run over Semester 1 and Semester 2. Students enrol in Semester 1.
~ Recommended AGR3304 Soil Science from Agricultural Systems minor

Full-time recommended enrolment pattern - Semester 2 start

To satisfy the requirements of the program students must complete all of the Academic and Practice courses in the following table that shows the recommended enrolment patterns for on-campus and external students for our Toowoomba campus. Students following a non-standard enrolment pattern should click on the course link in the table below to ascertain if a course is offered in another term.

Course	Year of program and semester in which course is normally studied						Residential school	Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
Year 1								
CSC1401 Foundation Programming £	1	1,2,3			1	1,2,3		
Minor course or elective @	1	2			1	2		
SVY1110 Introduction to Global Positioning System	1	2			1	2		
AGR1109 Professionalism in Agriculture * +	1	1,2			1	1,2		
AGR2104 Farm Safety and Operations 2 ^ * +	1	1,2	1	1,2			M	
Minor course or elective	1	1			1	1		
STA1003 Fundamental Statistics §	1	1,2			1	1,2,3		Enrolment is not permitted in STA1003 if STA2300 or S TA8170 or STA6200 or STA1004 has been previous ly completed. Students en rolled in the BACT, or under taking the Accounting Major in the BBCM, are not eligible for enrolment.
GIS1402 Geographic Information Systems £	1	1			1	1,3		
AGR1104 Farm Safety and Operations 1 ^ * +	1	1	1	1			M	
AGR2109 Practical Investigations in Agricultural Technology #	1	1	1	1			M	Pre-requisite or Co-requisite: AGR1104 and AGR2104
Year 2								
AGR2008 Business Principles for Agriculture					2	2		
AGR3305 Precision and Smart Technologies in Agriculture	2	2			2	2		
AGR2202 Instrumentation and Automation in Agriculture ^	2	2	2	2			M	
AGR2109 Practical Investigations in Agricultural Technology #	2	2	2	2			M	Pre-requisite or Co-requisite: AGR1104 and AGR2104
AGR2209 Innovation and Entrepreneurship in Agriculture *	2	2			2	2		Pre-requisite or Co-requisite: AGR2008
Minor course or elective %	2	1			2	1		
Minor course or elective <	2	1			2	1		

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Course	Year of program and semester in which course is normally studied						Residential school	Enrolment requirements
	On-campus (ONC)		External (EXT)		Online (ONL)			
	Year	Sem	Year	Sem	Year	Sem		
AGR2302 Agricultural Machinery	2	1			2	1		
Minor course or elective	2	1			2	1		
Year 3								
AGR3109 Agricultural Technology Industry Placement			3	1,2				
Minor course or elective	3	2			3	2		
Minor course or elective	3	2			3	2		
AGR3302 Sensors and Technology in Animal Production	3	2	3	2			HR	
Minor course or elective ~	3	1			3	1		
AGR3105 Smart Data Farming	3	1			3	1		
LAW3600 Agricultural Technologies and the Law	3	1			3	1		
AGR3209 Agricultural Technology and Management Project	3	1			3	1		

Footnotes

£ In Semester 3, 2023 this course will be delivered as a Transition (9 week) semester, commencing on 13 November 2023 and concluding on 12 January 2024
@ Recommended AGR2301 Agricultural Science from Agricultural Systems minor
* 0.5–unit course
+ These 0.5–unit courses build initial knowledge and are not sequential
^ Mandatory residential school for external students
§ Unavailable online in S3 2023
# This course will run over Semester 1 and Semester 2. Students enrol in Semester 1.
% Recommended AGR2303 Agronomy from Agricultural Systems minor
< Recommended AGR2201 Animal Production Systems from Agricultural Systems minor
~ recommended AGR3304 Soil Science from Agricultural Systems minor

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