

# Bachelor of Agribusiness/Bachelor of Applied Science

## Welcome to the Bachelor of Agribusiness/Bachelor of Applied Science

This program is designed to provide you with an appreciation of food and fibre industries in combination with technology and management of animal science, or plant studies, depending on the Applied Science major selected.

A dual program gives you the flexibility to study two areas of interest at the same time. The additional knowledge and skills gained from this will give you a competitive edge in the workplace and significantly broaden your career possibilities. Dual programs can be completed more quickly than two separate degrees. Dual programs at UQ have unique QTAC codes and you must satisfy prerequisite and entry score requirements. Applicants for UQ dual programs must apply through the normal QTAC application process.

If you are in a single BAppSc, you may apply in a later semester for entry to a dual program. Check with the Faculty of Science about the process for changing into a dual program.

## Structure of the BAgribus/BAppSc

Full-time students can complete the BAgribus/BAppSc in 4 years by passing 4 courses each semester. Each UQ course has a "unit value" with most courses worth 2 units (#2). To earn a BAgribus/BAppSc, you must choose a major from the Bachelor of Applied Science Program and complete a total of #64 (eg. 32 courses each worth #2) according to the BAgribus/BAppSc requirements. The program requirements are listed below:

A student is required to obtain #64 comprising:

- 1) #32 from the BAppSc list, including:
  - a) #16 for core courses listed in Part A (Please note that there are #20 core courses listed but MATH1040 and STAT1201 will count towards the BAgribus component.)
  - b) a major from Part B
- 2) #32 from Part A of the BAgribus list (Please note that there are #34 core courses listed but AGRC1010 will count towards the BAppSc component.)

Students are required to complete 30 days of Industry Practice Work Experience. This must be finished and approved at least two months prior to the end of your final semester in a minimum of two different placements. For further information please refer to the [Industry Practice Work Experience Booklet](#).

[Further information about the BAgribus/BAppSc rules and requirements.](#)

## Bachelor of Agribusiness

The Bachelor of Agribusiness involves the study of food and fibre products and their delivery and dispersion to domestic and international customers and consumers. In the Agribusiness program you learn about marketing, financing and managing people and technologies that link raw ingredient producers with manufacturers and, finally, consumers.

Courses you will study include business management, market research and marketing, strategy, and business sustainability, with specialist studies in the agricultural environment and food and fibre industry technologies.

[For further information, please see the Bachelor of Agribusiness page.](#)

## **Bachelor of Applied Science**

The Bachelor of Applied Science is a versatile degree that provides students with the optimal balance between a defined sequence of study and flexible course options. This innovative program has been designed to develop graduates with the key practical skills in a chosen discipline plus interdisciplinary knowledge required to address today's global challenges.

[For further information, please see the Bachelor of Applied Science page.](#)

## **What is a major?**

Majors are areas of specialisation within the BAppSc that help you gain in-depth knowledge by completing a particular sequence and number of courses. All students in the BAgribus/BAppSc must complete the requirements for a major in Part B of the BAppSc list. Your major will be printed on your degree certificate.

Requirements for a Single Major are: #16 (#2 at Level 1, #6 at Level 2 and #8 at Level 3) in a single discipline according to the [course list](#).

To view further information on Bachelor of Applied Science Majors that are offered, and study planners, please click on the links below:

## **Study Planners**

[Agronomy](#)

[Animal Production](#)

[Equine Management](#)

[Horticulture](#)

# Bachelor of Agribusiness/Bachelor of Applied Science - Agronomy

## Introduction to Agronomy - Major for Dual Program

Agronomy deals with the science and technologies involved in cultivating plants for sustainable agricultural systems, crop production and pastures.

### Full-time Study Plan

Last updated – 13 September 2016.

#### YEAR 1 SEMESTER 1

ACCT1101 Accounting for Decision Making <i>(replaced MGTS1960)</i>	Compulsory for BAgribus
AGRC1014 Plant Utilisation in Natural and Agricultural Environments	Compulsory for BAppSc
AGRC1021 Applied Plant Biology	Compulsory for BAppSc
Elective in lieu of MATH1040 <sup>1</sup>	Compulsory for BAgribus

<sup>1</sup>Please contact Faculty for further advice

#### YEAR 1 SEMESTER 2

AGRC1031 Australia's Bio-physical Environment	Compulsory for BAppSc
AGRC1040 Food for a Healthy Planet <i>(replaced AGRC1010)</i>	Compulsory for BAppSc
AGRC2030 Agricultural Economics <i>(replaced MGTS1970)</i>	Compulsory for BAgribus
CHEM1004 Chemistry	Compulsory for BAppSc

#### YEAR 2 SEMESTER 1

AGRC1012 Food and Fibre Case Studies I	Compulsory for BAgribus
AGRC1020 Applied Animal Biology	Compulsory for BAppSc
AGRC2001 Agricultural Biochemistry	Compulsory for BAppSc
MKTG1501 Foundations of Marketing <i>(replaced MKTG1502)</i>	Compulsory for BAgribus

#### YEAR 2 SEMESTER 2

AGRC2040 Agroecology <i>(previously AGRC2020)</i>	Compulsory for BAppSc
IBUS3960 Export Marketing & Practices <i>(replaced MKTG2961)</i>	Compulsory for BAgribus
PLNT2002 Plant Physiology	Compulsory for BAppSc
PLNT2011 Plant and Environmental Health	Compulsory for BAppSc

#### YEAR 3 SEMESTER 1

LAND3005 Soil Plant Relationships	Compulsory for BAppSc
LAND3007 Land Use and Management	Compulsory for BAppSc
MGTS1982 Working with Groups and Teams <i>(previously MGTS2961)</i> <sup>1</sup>	Compulsory for BAgribus
STAT1201 Analysis of Scientific Data <i>(previously STAT2701)</i> <sup>1</sup>	Compulsory for BAgribus

<sup>1</sup> Now offered in semester 2

### YEAR 3 SEMESTER 2

AGRC2000 Food and Fibre Case Studies II	Compulsory for BAgribus
AGRC2013 Agricultural Microbiology & Gene Technology	Compulsory for BAppSc
AGRC3002 Crop Production Science	Compulsory for BAppSc
MKTG3960 Applied Market Research	Compulsory for BAgribus

### YEAR 4 SEMESTER 1

AGRC3036 Precision Agriculture ( <i>if unable to fit AGRC2043 into Semester 2 – replaced AGRC3017</i> )	Compulsory for BAppSc
FINM3960 Investment Project Appraisal	Compulsory for BAgribus
MGTS3968 Food Systems and Supply Chain Management	Compulsory for BAgribus
Elective recommended: MKTG3961 Commodities, Futures & Options ( <i>replaced AGRC3031</i> )	Compulsory for BAgribus

### YEAR 4 SEMESTER 2

AGRC3000 Food and Fibre Case Studies (#4)	Compulsory for BAgribus
AGRC3023 Agrifood Strategy & Competitiveness	Compulsory for BAgribus
AGRC3006 Pasture Science	Compulsory for BAppSc

## What will I study?

Agronomy is the science and technology of producing and using plants for food, fuel, feed, fibre, and reclamation. Agronomy encompasses work in the areas of plant genetics, plant physiology, meteorology, and soil science. Agronomy is the application of a combination of sciences like biology, chemistry, economics, ecology, earth science, and genetics. Agronomists today are involved with many issues including producing food, creating healthier food, managing environmental impact of agriculture, and creating energy from plants. Agronomists often specialise in areas such as crop rotation, irrigation and drainage, plant breeding, plant physiology, soil classification, soil fertility, weed control, insect and pest control.

## Where can I work?

Due to the continued growth of the global population-and the consequent expanding need for study of food crops and agriculture in general the outlook for agronomy and agronomists is excellent. Past agricultural research has created higher yielding crops, crops with better resistance to pests and plant pathogens, and more effective fertilizers and pesticides. Research is still necessary, however, particularly as insects and diseases continue to adapt to pesticides and as soil fertility and water quality continue to need improvement.

Emerging biotechnologies will play an ever larger role in agricultural research. Scientists will be needed to apply these technologies to the creation of new food and plant products and other advances. Moreover, increasing demand is expected for biofuels and other agricultural products used in industrial processes. Agricultural scientists will be needed to find ways to increase the output of crops used in these products.

Agronomists will also be needed to balance increased agricultural output with protection and preservation of soil, water, and ecosystems. They increasingly encourage the practice of sustainable agriculture by developing and implementing plans to manage pests, crops, soil fertility and erosion, and animal waste in ways that reduce the use of harmful chemicals and do little

damage to farms and the natural environment. Most agronomists are consultants, researchers, or teachers. Many work in the private sector or for agricultural experiment stations, federal or state government agencies, or universities. Agronomists also serve in such international organizations as the Agency for International Development, and the Food and Agriculture Organization of the United Nations.

Agronomy major graduates find employment in:

- Agronomy in government and industry
- Crop nutrition, physiology and modeling
- Extension specialisation and consultation
- Plant science
- Pathology
- Plant protection, extension and consultancy services
- Research and development
- Teaching (on completion of a Graduate Diploma in Education)
- Seed production.

# Bachelor of Agribusiness/Bachelor of Applied Science – Animal Production

## Introduction to Animal Production- Major for Dual Program

Animal production covers animal behaviour, microbiology, anatomy and physiology, biochemistry, nutrition, health and genetics which underpin animal production and their application to the major livestock industries.

### Full-time Study Plan

Last updated – 13 September 2016.

#### YEAR 1 SEMESTER 1

ACCT1101 Accounting for Decision Making <i>(replaced MGTS1960)</i>	Compulsory for BAgribus
AGRC1020 Applied Animal Biology	Compulsory for BAppSc
ANIM1014 Animal Welfare, Behaviour & Handling	Compulsory for BAppSc
Elective in lieu of MATH1040 <sup>1</sup> <i><sup>1</sup>Please contact Faculty for further advice</i>	Compulsory for BAppSc

#### YEAR 1 SEMESTER 2

AGRC1031 Australia's Bio-physical Environment	Compulsory for BAppSc
AGRC1040 Food for a Healthy Planet <i>(replaced AGRC1010)</i>	Compulsory for BAgribus
AGRC2030 Agricultural Economics <i>(replaced MGTS1970)</i>	Compulsory for BAgribus
CHEM1004 Chemistry	Compulsory for BAppSc

#### YEAR 2 SEMESTER 1

AGRC1012 Food and Fibre Case Studies I	Compulsory for BAgribus
AGRC1021 Applied Plant Biology	Compulsory for BAppSc
ANIM2051 Animal Anatomy & Physiology I	Compulsory for BAppSc
MKTG1501 Foundations of Marketing <i>(replaced MKTG1502)</i>	Compulsory for BAgribus

#### YEAR 2 SEMESTER 2

AGRC2013 Agricultural Microbiology & Gene Technology	Compulsory for BAppSc
AGRC3006 Pasture Science	Compulsory for BAppSc
ANIM3006 Animal Health & Epidemiology	Compulsory for BAppSc
IBUS3960 Export Marketing & Practices <i>(replaced MKTG2961)</i>	Compulsory for BAgribus

#### YEAR 3 SEMESTER 1

AGRC2001 Agricultural Biochemistry	Compulsory for BAppSc
ANIM2044 Intensive Animal Production <i>(previously ANIM3044)</i>	Compulsory for BAppSc
ANIM2053 Animal Nutrition	Compulsory for BAppSc
STAT1201 Analysis of Scientific Data <i>(previously STAT2701)</i> <sup>1</sup>	Compulsory for BAgribus

<sup>1</sup> Now offered in semester 2

**YEAR 3 SEMESTER 2**

AGRC2000 Food and Fibre Case Studies II	<b>Compulsory for BAgribus</b>
ANIM2054 Grazing Animal Production	<b>Compulsory for BAppSc</b>
MGTS1982 Working with Groups and Teams (previously MGTS2961) <sup>1</sup>	<b>Compulsory for BAgribus</b>
MKTG3960 Applied Market Research	<b>Compulsory for BAgribus</b>

<sup>1</sup> Now offered in semester 2

**YEAR 4 SEMESTER 1**

ANIM3046 Animal Breeding and Genetics	<b>Compulsory for BAppSc</b>
FINM3960 Investment Project Appraisal	<b>Compulsory for BAgribus</b>
MGTS3968 Food Systems and Supply Chain Management	<b>Compulsory for BAgribus</b>
Elective recommended: MKTG3961 Commodities, Futures & Options (replaced AGRC3031)	<b>Compulsory for BAgribus</b>

**YEAR 4 SEMESTER 2**

AGRC3000 Food and Fibre Case Studies (#4)	<b>Compulsory for BAgribus</b>
AGRC3023 Agrifood Strategy & Competitiveness	<b>Compulsory for BAgribus</b>
ANIM3045 Livestock Enterprise Management	<b>Compulsory for BAppSc</b>

# Bachelor of Agribusiness/Bachelor of Applied Science – Equine Management

## Introduction to Equine Management - Major for Dual Program

Equine Management involves the study of horse nutrition, breeding, exercise physiology, health, equitation and rehabilitation as well as welfare and behaviour.

### Full-time Study Plan

Last updated – 13 September 2016.

#### YEAR 1 SEMESTER 1

ACCT1101 Accounting for Decision Making <i>(replaced MGTS1960)</i>	Compulsory for BAgribus
AGRC1020 Applied Animal Biology	Compulsory for BAppSc
AGRC1021 Applied Plant Biology	Compulsory for BAppSc
Elective in lieu of MATH1040 <sup>1</sup>	Compulsory for BAppSc

<sup>1</sup>Please contact Faculty for further advice

#### YEAR 1 SEMESTER 2

AGRC1031 Australia's Bio-physical Environment	Compulsory for BAppSc
AGRC1040 Food for a Healthy Planet <i>(replaced AGRC1010)</i>	Compulsory for BAgribus
AGRC2030 Agricultural Economics <i>(replaced MGTS1970)</i>	Compulsory for BAgribus
ANIM1006 Equine Husbandry and Equitation I	Compulsory for BAppSc

#### YEAR 2 SEMESTER 1

AGRC1012 Food and Fibre Case Studies I	Compulsory for BAgribus
ANIM2024 Equine Behaviour and Handling	Compulsory for BAppSc
ANIM2051 Animal Anatomy & Physiology I	Compulsory for BAppSc
MKTG1501 Foundations of Marketing <i>(replaced MKTG1502)</i>	Compulsory for BAgribus

#### YEAR 2 SEMESTER 2

AGRC2013 Agricultural Microbiology & Gene Technology	Compulsory for BAppSc
ANIM2039 Equine Breeding and Stud Management	Compulsory for BAppSc
CHEM1004 Chemistry	Compulsory for BAppSc
IBUS3960 Export Marketing & Practices <i>(replaced MKTG2961)</i>	Compulsory for BAgribus

#### YEAR 3 SEMESTER 1

AGRC2001 Agricultural Biochemistry	Compulsory for BAppSc
ANIM3039 Equine Exercise and Rehabilitation	Compulsory for BAppSc
MGTS1982 Working with Groups and Teams <i>(previously MGTS2961)</i> <sup>1</sup>	Compulsory for BAgribus
STAT1201 Analysis of Scientific Data <i>(previously STAT2701)</i> <sup>1</sup>	Compulsory for BAgribus

<sup>1</sup> Now offered in semester 2



### YEAR 3 SEMESTER 2

AGRC2000 Food and Fibre Case Studies II	<b>Compulsory for BAgribus</b>
AGRC3006 Pasture Science	<b>Compulsory for BAppSc</b>
ANIM3006 Animal Health and Epidemiology	<b>Compulsory for BAppSc</b>
MKTG3960 Applied Market Research	<b>Compulsory for BAgribus</b>

### YEAR 4 SEMESTER 1

ANIM3046 Animal Breeding and Genetics	<b>Compulsory for BAppSc</b>
FINM3960 Investment Project Appraisal	<b>Compulsory for BAgribus</b>
MGTS3968 Food Systems and Supply Chain Management	<b>Compulsory for BAgribus</b>
Elective recommended: MKTG3961 Commodities, Futures & Options ( <i>replaced AGRC3031</i> )	<b>Compulsory for BAgribus</b>

### YEAR 4 SEMESTER 2

AGRC3000 Food and Fibre Case Studies (#4)	<b>Compulsory for BAgribus</b>
AGRC3023 Agrifood Strategy & Competitiveness	<b>Compulsory for BAgribus</b>
ANIM3030 Equine Nutrition and Health	<b>Compulsory for BAppSc</b>

## What will I study?

The equine science major gives you experience in basic animal science, as well as a scientific basis and practical aspects of equine management and performance. There is ample elective space for students to pursue interests in related fields.

## Where can I work?

UQ's Equine Graduates have established careers in Australia, Germany, Britain, the United States of America and New Zealand at every level of the horse industry. With experience, many progress to supervisory and management positions.

Areas of employment include:

- horse studs
- agistment
- preconditioning and training establishments
- racing and competition stables
- statutory bodies administering racing and trotting
- bloodstock agencies, agribusiness firms
- breed societies, pastoral enterprises, equestrian centres and riding schools
- sales and marketing
- animal nutrition and animal health companies
- equine journalism
- veterinary assistants
- equine industry organisations and educational institutions

# Bachelor of Agribusiness/Bachelor of Applied Science – Horticulture

## Introduction to Horticulture - Major for Dual Program

Horticulture covers science and technologies involved in producing fruit, vegetable, nursery and floricultural crops. Horticulturists work and conduct research in the disciplines of plant propagation and cultivation, crop production, plant breeding and genetic engineering, plant biochemistry, and plant physiology. The work involves fruits, berries, nuts, vegetables, flowers, trees, shrubs, and turf. Horticulturists work to improve crop yield, quality, nutritional value, and resistance to insects, diseases, and environmental stresses. Horticultural crops are usually managed more intensively than Agricultural crops.

## Full-time Study Plan

Last updated – 13 September 2016.

### YEAR 1 SEMESTER 1

ACCT1101 Accounting for Decision Making <i>(replaced MGTS1960)</i>	Compulsory for BAgribus
AGRC1014 Plant Utilisation in Natural and Agricultural Environments	Compulsory for BAppSc
AGRC1021 Applied Plant Biology	Compulsory for BAppSc
Elective in lieu of MATH1040 <sup>1</sup>	Compulsory for BAppSc

<sup>1</sup>Please contact Faculty for further advice

### YEAR 1 SEMESTER 2

AGRC1031 Australia's Bio-physical Environment	Compulsory for BAppSc
AGRC1040 Food for a Healthy Planet <i>(replaced AGRC1010)</i>	Compulsory for BAgribus
AGRC2030 Agricultural Economics <i>(replaced MGTS1970)</i>	Compulsory for BAgribus
CHEM1004 Chemistry	Compulsory for BAppSc

### YEAR 2 SEMESTER 1

AGRC1012 Food and Fibre Case Studies I	Compulsory for BAgribus
AGRC1020 Applied Animal Biology	Compulsory for BAppSc
AGRC2001 Agricultural Biochemistry	Compulsory for BAppSc
MKTG1501 Foundations of Marketing <i>(replaced MKTG1502)</i>	Compulsory for BAgribus

### YEAR 2 SEMESTER 2

AGRC2000 Food and Fibre Case Studies II	Compulsory for BAgribus
IBUS3960 Export Marketing & Practices <i>(replaced MKTG2961)</i>	Compulsory for BAgribus
PLNT2002 Plant Physiology	Compulsory for BAppSc
PLNT2011 Plant and Environmental Health	Compulsory for BAppSc

### YEAR 3 SEMESTER 1

AGRC3036 Precision Plant and Animal Management <i>(replaced HORT3010)</i>	Compulsory for BAppSc
HORT2007 Horticultural Science	Compulsory for BAppSc
MGTS1982 Working with Groups and Teams	Compulsory for BAgribus

(previously MGTS2961)<sup>1</sup>

STAT1201 Analysis of Scientific Data (previously  
STAT2701)<sup>1</sup>

<sup>1</sup> Now offered in semester 2

**Compulsory for BAgribus**

### **YEAR 3 SEMESTER 2**

AGRC2013 Agricultural Microbiology & Gene  
Technology

**Compulsory for BAppSc**

HORT3003 Production Horticulture

**Compulsory for BAppSc**

HORT3009 Horticulture Science 2 (previously  
HORT3008)

**Compulsory for BAppSc**

MKTG3960 Applied Market Research

**Compulsory for BAgribus**

### **YEAR 4 SEMESTER 1**

FINM3960 Investment Project Appraisal

**Compulsory for BAgribus**

LAND3005 Soil Plant Relationships

**Compulsory for BAppSc**

MGTS3968 Food Systems and Supply Chain  
Management

**Compulsory for BAgribus**

Elective recommended: MKTG3961

Commodities, Futures & Options (replaced  
AGRC3031)

**Compulsory for BAgribus**

### **YEAR 4 SEMESTER 2**

AGRC3000 Food and Fibre Case Studies (#4)

**Compulsory for BAgribus**

AGRC3023 Agrifood Strategy &  
Competitiveness

**Compulsory for BAgribus**

ANIM2043 Molecular & Quantitative Plant  
Genetics (previously AGRC3017)

**Compulsory for BAppSc**

## **What will I study?**

The Horticulture major focuses on enhancing food security and economic development, while conserving the natural environment. Horticulture is a technological and fast-moving career option. Due to significant skill shortages in these areas, UQ graduates are in high demand across the agricultural and horticultural industries. You will study the development of new technologies needed to manage the growing, post-harvest management and marketing of horticultural crops. Graduates have the skills and knowledge to improve environmental aspects of urban areas.

## **Where can I work?**

Due to the continued growth of the global population-and the consequent expanding need for study of food crops and agriculture in general-the outlook for horticulturalists is excellent. Past agricultural research has created higher yielding crops, crops with better resistance to pests and plant pathogens, and more effective fertilizers and pesticides. Research is still necessary, however, particularly as insects and diseases continue to adapt to pesticides and as soil fertility and water quality continue to need improvement.

Emerging biotechnologies will play an ever larger role in agricultural research. Scientists will be needed to apply these technologies to the creation of new food products and other advances. Moreover, increasing demand is expected for biofuels and other agricultural products used in industrial processes. Agricultural scientists will be needed to find ways to increase the output of crops used in these products.