



# Royal Agricultural University

**ROYAL AGRICULTURAL UNIVERSITY, CIRENCESTER**

## **PROGRAMME SPECIFICATION**

### **Agricultural Technology and Innovation**

**NB**

*The information contained in this document is intended only as a guide to the programme. It does not constitute a legally binding document or contract between the individual and the Royal Agricultural University.*

*The information contained herein is correct at the time of going to print, but the University reserves the right to make changes to the structure of the programme, assessment methods, etc. at any time without prior notification. Any changes made however will be made known as soon as possible.*

**Programme Manager Mr Nigel Warner**

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<b>1. Awarding institution</b>	Royal Agricultural University
<b>2. Teaching institution</b>	Royal Agricultural University
<b>3. Final award title(s)</b>	MSc Agricultural Technology and Innovation  Postgraduate Diploma Agricultural Technology and Innovation
<b>4. Academic level on Framework for Higher Education Qualifications (FHEQ)</b>	Level 7
<b>5. UCAS code(s)</b>	Not applicable
<b>6. Relevant QAA Subject Benchmark Statement(s) and other reference points, e.g. FD qualification benchmark</b>	The Framework for Higher Education Qualifications in England, Wales, and Northern Ireland (QAA 2008)  QAA code of practice, programme approval monitoring and review.  Subject Benchmark Statements, agriculture, horticulture, forestry, food and consumer sciences (QAA 2009) and Master's degrees in Business and Management (2007).
<b>7. Details of accreditation by a professional/statutory body</b>	Not applicable
<b>8. Mode of study</b>	Full-time (one year) or flexible provision.
<b>9. Language of study</b>	English
<b>10. Date of production/revision</b>	Production January 2016, for validation February/ March 2016.
<b>11. Educational aims of the programme</b> [Specify the key aims of the programme]	

## 11.1 Introduction and context

There is a progressive advance in the diversity, sophistication and power of technologies utilised in agriculture and in the management of environmental resources. Additionally, advances in semiconductor based instruments, sensors, materials, miniaturisation, computer software, data processing, aerial and satellite derived data, are contributing to the development of new ways of managing both the productive capacity of agriculture and the management of natural and wild spaces and resources.

Such developments are likely to have far reaching consequences in all parts of the world, developed and developing alike, particularly where priorities exist for the improvement of agricultural and horticultural output, efficiency and product quality with the least possible damage to natural resources and landscapes.

Similarly there are escalating issues over the sustainable supply of production resources such as water, soil and fertilisers. Increased precision and more adaptable management of these has the potential to make a positive contribution in conserving such essential inputs. The capture of environmental data and its rapid and accurate interpretation may also provide opportunities for more effective and timely management of natural land, wild and undeveloped areas.

However the successful implementation of such technologies will only be realised and extended if the intellectual resources are made available as well. The human component will be the foundation for the creation of new technologies, their transfer and integration within a production environment.

This course is designed to allow graduates to develop their skills and abilities to a level commensurate with starting a career across a range of opportunities, such as private companies, research centres, government agencies, or as self-start entrepreneurs. Technical content will be matched with business studies in a series of modules all of which have been designed specifically for this new course.

To date the utilisation of new agricultural technologies has been pioneered by companies specialising in the development of highly sophisticated hardware, using novel software and new concepts of sensing the biological, physical, and chemical components of the managed environment.

There is likely to be increasing growth in this sector of agricultural technology over many years ahead.

Adoption of the new technologies will be driven by the enhanced business performance and the environmental advantages likely to be gained from the application of improved management tools.

Forward looking businesses will be in need of talented, well-educated and skilful recruits capable of making effective contributions to business projects from the outset of their careers.

A combination of a comprehensive appreciation of the wide range of new technologies together with an understanding of the demands of commerce and business will ensure graduates of this course are fully equipped to make effective contributions upon graduation. Such graduates are likely to be in demand as new companies form and established organisations and enterprises move into this new and dynamic sector.

## **11.2 Distinctive features of the Programme**

This is the first course of its kind in the UK. It is designed to equip its graduates with real world developments in novel and innovative technologies applied to agriculture, horticulture, and the natural environment.

The course is industry orientated, and has a strong academic foundation, including a period of independent study that provides an opportunity to engage with sector specialists in a professional capacity.

The course has a well-qualified team involved in its delivery, with academic excellence and strong industry contributions from experienced leaders from a variety of agri-technology based businesses.

The RAU is widely recognised as a centre for entrepreneurial teaching, and cultures, through active networks and financial incentives, the development of innovative spirit in its graduates.

The RAU maintains a strong connection with its alumni, and maintains connections to leaders in a wide range of businesses and practitioners, who support the University and its students by providing access to expertise and advice.

## **11.3 Programme aims and objectives**

The programme aims to produce graduates who;

Have a comprehensive understanding of the new technologies being applied in agriculture, horticulture and for the management of the natural environment.

Are technically adept, accomplished, and fluent with technical aspects of the capture, processing, interpretation and application of digital data.

Are familiar with, and able to quickly integrate into, a working environment.

Have an understanding of the principles and practice of agricultural and horticultural production and a full awareness of the potential applications and benefits of new technologies.

Are able to communicate in appropriate ways at all levels, and to clearly and effectively present concepts and research findings to interested individuals, groups, businesses and other commercial organisations, and government agencies and institutions.

Are committed to the improvement of agriculture, horticulture, and the care of the natural environment.

Are responsible and considerate of the ethical issues in their work.

Are lifelong learners, with motivation to sustain their personal, professional and career development.

The course will develop an appreciation of entrepreneurial skills needed to establish and develop new companies, and the business skills required for management.

The RAU aspires that its graduates from this course will be reliable, confident, able and employable individuals with high level communication skills and that they have the ability to use their knowledge and skills to develop solutions to novel problems, generate new ideas, and develop innovative new technologies and adapt and update established methods, techniques and procedures.

Graduates will be able to work both as individuals and as part of teams, undertake management responsibilities and respond constructively to the demands of business operations.

## **Careers**

Graduates will be well qualified to progress to careers in industry, research, or to start up their own businesses in this sector.

## **12. Intended learning outcomes**

Learning outcomes are informed by the:

Framework for Higher Education Qualifications in England, Wales and Northern Ireland (QAA, 2008)

QAA benchmark statement: Masters degrees in XXXXxx

Benchmark statement for Honours degrees in agriculture, horticulture, forestry, food and consumer science (QAA 248 05/08, 2009).

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### **Knowledge and understanding**

By the end of the programme the student will be able to:

- A1 Understand, demonstrate, evaluate and assess a range of technological systems and technical devices being used in agriculture;
- A2. Understand what 'big data' is and how existing and new devices (mobile and other) in an agricultural context can be used to collect and use data to aid farm/agricultural business operations and management;
- A3. Demonstrate an applied management, enterprise and entrepreneurship skill set in a range of agricultural technology systems contexts.
- A4. Critically evaluate and analyse agricultural technology products and systems with respect to a range of management requirements

## **B) Intellectual skills**

By studying the MSc in Agricultural Technology and Innovation students will develop their ability to analyse technical data, and devise appropriate ways to overcome technical challenges in the agricultural, horticultural and environmental sectors by developing a number of key intellectual skills and competencies.

By the end of the programme the student will be able to:

- BI. Demonstrate critical evaluation and create links between various forms of information, data and appropriate literature.
- B2. Show creativity and manage the creative process
- B3. Identify and solve complex problems holistically by evaluating issues and options, and implementing and reviewing decisions:
- B4. Conduct research into agricultural technology systems and management issues either individually or as part of a team through research design, data collection, analysis, synthesis and reporting;
- B5. Devise and sustain an argument supported by valid and significant evidence.

### **i. Practical / professional skills**

Students will be encouraged to experientially explore the agricultural technology industry in an enterprising way whilst at the same time allowing for reflective practice. They will seek to integrate and synthesise knowledge and experience and view these within a professional context.

By the end of the programme the student will be able to:

- CI. Show high personal effectiveness including critical self- awareness, self-reflection and self-management, time management, sensitivity to diversity in people and different situations, and the ability to continue to learn through reflection on practice and experience.
- C2. Perform effectively within team environments with a specific focus on the ability to recognise and utilise individuals' contributions in group processes and to negotiate, persuade or influence others; team selection, delegation, development and management.

- C3 Demonstrate positive leadership by selecting appropriate leadership styles for different situations, setting targets, motivating, monitoring performance, coaching and mentoring.
- C4 Show the ability to recognise and address ethical dilemmas and corporate social responsibility issues, applying ethical and organisational values to situations and choices.
- C5 Manage complex technical or professional activities or projects taking responsibility for decision-making in unpredictable work or study contexts.
- C6 Analyse competing risks by developing, applying, and adapting a robust risk assessment, and selecting and delivering appropriate risk limitation procedures.

#### **D) Transferable skills**

Transferable skills reflect the student's ability to communicate information, ideas, problems and solutions in an efficient and professional manner.

Graduates will be expected to be able to demonstrate a range of cognitive and intellectual skills together with techniques specific to business and management. They should also demonstrate relevant personal communication and interpersonal skills, organisational, numerical and IT skills.

By the end of the programme the student will be able to:-

- D1. Work and learn effectively in an independent manner taking responsibility and action as required;
- D2. Work and learn effectively in a group situation by liaising with fellow task members, leading when appropriate and contributing in a positive way.
- D3. Show sound numeracy and literacy skills, communicating complex or contentious information clearly and effectively to the target audience using a range of media including Communication and Information Technology (CIT) and business plans.
- D4. Show well developed interpersonal skills and be able to listen and interact with a range of fellow agri-tech and management stakeholders.
- D5. Use the knowledge and skills they have acquired to generate new ideas and solve unfamiliar problems.

### **13. Programme structure and requirements**

#### **13.1 Programme content and outline**

The MSc in Agricultural Technology and Innovation is aimed at students from the UK and abroad, qualified to undergraduate degrees level (or equivalent) who want to:

- develop their interest in technology in the agriculture and environment sectors;
- develop products and services that are agriculture or environmentally related;
- participate in the development and production of agricultural technology information products and services;
- seek senior management positions in agricultural technology businesses;
- seek a career in agricultural technology product management.

The programme content provides a core foundation in agricultural technology and business development, complemented by hands-on training to enable students to:

1. acquire technical experience in a variety of agricultural technology systems, and;
2. learn management skills including strategy and marketing management.

This course incorporates studies of today's emerging technology with management and business principles to enable graduates to improve and inform agricultural operation and production. The programme is a blend of theory and practice with an emphasis on management and a focus on entrepreneurial and innovative practice in the agricultural technology space.

**Agricultural technology** is focused on: the development, usage, monitoring, planning and application of agricultural technology, with an emphasis on information management (including big data applications and implications). The application of practical and pragmatic technology, using existing and emerging soft and hard technology that is grounded in sound scientific theory and practice, will be done so within an enterprising mind-set.

Business Development is focused on three key business disciplines; finance, marketing, and business strategy. The module builds a strong foundation that provides a comprehensive understanding of the role and contribution of business activity to the commercial basis of the development and production of new technological processes and devices.

### **13.2 Programme credits and awards**

This is a one year full-time programme that requires the completion of 120 credits, achieved by the completion of taught modules, of which at least 120 credits must be at level 7 (as defined in the QAA framework), followed by a further 60 level 7 credits obtained by the completion of the Masters Research Project (see Figure I).

Completion of the one year full-time programme, with 180 credits, leads to the award of Master of Science in Agricultural Technology and Innovation.



An exit from the course is available upon the attainment of 120 credits following successful completion of the taught modules, with an award of a Postgraduate Diploma in Agricultural Technology and Innovation. An exit level at 60 credits, from a selection of taught modules, is also available. Students are eligible for a Postgraduate Certificate in Agricultural Technology and Innovation.

**Fig. 1 Programme structure**

<b>MSc Agricultural Technology and Innovation</b>  <b>180 credits</b>	<b>Masters Research Project</b>
<b>Postgraduate Diploma in Agricultural Technology and Innovation</b>  <b>120 credits</b>	<b>Taught modules</b>
<b>Postgraduate certificate</b>  <b>60 credits</b>	<b>Level 7 modules</b>

**Fig. 2 List of modules**

<b>Taught modules</b>	4233 Computing and Information Technology in Precision Agriculture (20)
	4236 Crop Production Technology (20)
	4234 Livestock Production Technology (20)
	4235 Environmental Technology (20)
	4230 Production Resource Management (20)
	4232 Business Development (20)
<b>Personal research</b>	4231 Masters Research Project (60)

### **Student workload**

All full-time academic programmes at the RAU are constructed using a selection of modules, each of which requires engagement with a variety of learning activities. Successful completion of module assessments will result in the award of credits, and students are required to achieve a total of 180 credits for each academic year of a full-time programme.

The credit system is used to ensure a balanced workload across each programme, with each credit point representing a notional learning time of 10 hours of student work. Thus a 20-credit module will require a notional input of 200 hours of work, and a complete academic year of 180 credits will require 1800 hours of work, or approximately 40 hours per week.

Within this total time, students can expect to participate in formal timetabled activities; such as lectures, seminars, tutorials, practicals and visits; for approximately one third of the total time – usually around 2 hours per week for a 20-credit module studied over 25 weeks of the year. Thus the majority of module activities; such as reading around the subject, preparing for tutorials and seminars, preparing for, and completing, module assessments and revision for, and sitting, examinations; will take place outside of these scheduled activities, but are an essential part of a student's learning.

Students attempting to minimise their learning activities may find themselves experiencing difficulties as each module progresses, and as the level of assumed understanding increases. Thus it is vitally important that new students establish an effective routine for their studies as soon as possible. Maintaining a balanced workload from the start of the programme will help to avoid intense periods of activity, and ensure knowledge and understanding gradually develop throughout the year in readiness for any end-of-module assessments and examinations.

## **14. Student support services**

### **14.1 Programme Management Group**

Students will be supported academically by Mr Nigel Warner (Programme Manager) and an academic team, the leaders of the modules making up the programme, plus the Head of School of SAFE. (Dr Xainmin Chang, Chris Brough and Rita Walsh)

### **14.2 Academic support services**

In addition, students can use the following people, resources and activities to support them during their time at the University;

- Induction programme for orientation and introducing study skills is held before the start of the autumn term. This includes a series of professional development workshops commencing in induction week.
- The University operates an Enterprise and Entrepreneurship Programme (E&EP) which provides comprehensive support, advice and expertise to students, staff and alumni who wish to start their own business. E&EP is embedded in the University curriculum and is also offered on an extra-curricular basis. The E&EP is open to all University students, alumni and staff.
- Student handbook and module guides.
- Library and study skills packages.
- Library with on-line learning resources
- Student email and internet facilities.

## **15. Criteria for admissions**

Applicants will be required to satisfy the general admissions requirements of the Royal Agricultural University.

### **15.1 Standard entry requirements**

Students will normally be expected to have:

An honours degree from a UK university (usually a minimum 2:1 classification) or a HND award (distinction profile), or an equivalent academic qualification from a comparable international institution.

Students with a degree in a cognate subject area (e.g. business management, management, marketing, agricultural management, management systems, data systems) will be particularly welcome, although this is not compulsory. If a student's first language is not English, we will accept international English Language Test (IELTS) with a minimum score of 6.5 average, with no element below 5.5

### **15.2 Non-standard entry**

The programme is also designed for those already working in the agri-tech industries who are seeking to develop technical, enterprise and entrepreneurship skills and to those interested in developing their career in business systems and business analysis. Therefore, applicants without a first degree but with relevant professional qualifications and/ or more extensive work experience may also be considered.

Students with other qualifications, including overseas awards and alternative English language qualifications, would be advised to contact Admissions prior to application to discuss the suitability of their award for entry onto the course.

## **16. Teaching, learning and assessment**

### **16.1 Curriculum**

The programme curriculum is designed to enable students to acquire and develop knowledge and understanding of the subject, intellectual and entrepreneurial thinking, practical/ professions and key transferable skills which correspond to those developed by the Quality Assurance Agency (QAA) for the Framework for Higher Education Qualifications. As students progress through the programme, they will be encouraged to expand their understanding and critical appreciation of key topics and issues in the agricultural and agricultural-related space through the exploration of agricultural technology systems in an experiential and enterprising way.

## **16.2 Progression**

The curriculum imposes an increased level of demand on the learner in a co-ordinated and progressive manner throughout the stages of the programme. Core modules concentrate on the acquisition of both technical and general business skills and knowledge helping students to get a broad knowledge of the business and management subjects early on in their studies. Industry-related modules develop students' abilities to apply the knowledge and acquired skills in managing real life complex situations in agricultural technology systems.

The master's research project module seeks to integrate and synthesise this knowledge and understanding.

## **16.3 Workload**

Student workloads are challenging but manageable, and they engage in a range of learning activities from lectures to independent study. Students are encouraged to actively engage in and take responsibility for their own learning and progression. Students will be encouraged to expand their understanding and critical appreciation of key management topics and issues as they progress through the programme (see also section 13.4 above).

## **16.4 Teaching and learning strategies**

Although vocationally and industry-oriented with theoretical material applied to real-world issues, challenges and situations, this MSc has a strong academic underpinning with the range of teaching methods in alignment with the nature and level of the constituent modules.

Students will experience a carefully planned and diverse programme of teaching and learning, guided by the explicit aims and identified learning outcomes, to include:

- lectures;
- seminars;
- tutorials;
- visits to stakeholder organisations and agri-tech businesses;
- workshops;
- case studies incorporating problem-based and experiential learning;
- group project work;
- individual work;
- reflective writing and reports,
- presentations;
- business planning including live business scenarios
- Students are given directed/guided learning tasks but will also be encouraged to increase their depth of knowledge and understanding through private study.

In addition to formal teaching programme, the students will have access to a study enrichment programme which will include:

### **(a) The RAU Enterprise and Entrepreneurship Programme**

Entrepreneurial students can take advantage of the business support and mentoring opportunities offered by the dedicated RAU Enterprise team. The team can help students develop their own agri-technology business ideas.

The new Enterprise and Entrepreneurship programme offers support at all levels:

"Think it" for those just starting out;

"Try it" for those gaining market research and starting to formulate the business model;

"Launch it" for those ready to start trading.

"Grow it" to help you continue to develop your new business.

The team run a number of workshops and business competitions which encourage idea generation. Students can pitch to an expert judging panel in the hope of winning £1, 000 to invest into their business. Budding entrepreneurs can also benefit from the knowledge and experience of Lecturers and their strong industry links to agri-tech focused business entrepreneurs.

### **(b) Outside lectures and events**

Students will have access to a number of annual lectures (Bledisloe and Cator lectures) and talks by outside speakers held at the RAU, an active programme of research seminars, and events held at the RAU's Rural Innovation Centre and Harnhill Farm. Students are also encouraged to attend shows such as the Rural Business Innovation Show each year and participate/attend other activities and events including, for example the enterprise programme and support for enterprise, trade fairs, competitions, climate change challenge, alumni events, 'festival'

### **(c) Academic practice workshops**

Students will be encouraged to engage in a range of workshops focusing on specific academic and professional skills to support their learning within modules. These will include sessions on essay writing, report writing, case study development and analysis, presentations and pitches, team working, and the use of CIT

### **(d) Site visits**

A wide variety of study/site visits are undertaken to local/regional industry-relevant businesses where stakeholders and agri-tech managers provide valuable insights into contemporary issues affecting the sector.

### **(e) Professional accreditation**

None to date

#### (f) Study Materials

Indicative reading is specified in the module reference sheets/ course readers with the necessary private study being supported by access to the RAU virtual learning environment (Gateway) and the full range of library resources and facilities.

Bespoke electronic hardware and software construction and development materials and resources will be made available on an individual individual student basis.

### **16.5 Assessment strategies/ methods**

A variety of assessment methods are used including the writing of professional reports, presentations, reflective essays, case study analysis, critical academic papers, marketing plans, business plans and evaluation projects, and written examinations. Assessment will culminate in the writing of a substantial piece of research as part of the Masters Research Project module.

Summative assessment is built into modules and formative assessment is encouraged throughout. All module learning outcomes will be assessed.

Assessment methods within modules are based on appropriate and preferred approaches as set by the module leaders, subject to the programme team determining the overall balance and scrutiny by the University's Academic Quality and Standards Committee (AQSC). Learning and teaching is relevant for the assessment with the range of methods adopted in alignment with the nature and level of the programme.

There will not be any variation from the normal assessment conventions of the University as currently set out in Part 6 of the Teaching Quality Handbook (TQH).

### **16.6 Inclusive practice**

This programme is inclusive of disabled people with particular regard to teaching, learning and assessment, in accordance with Part 10: Inclusive Practice of the University's Teaching Quality Handbook and the [Equality Act 2010](#). However, due to the particular requirements of this programme, students who are [please delete as appropriate: hearing impaired, vision impaired, speech impaired, dyslexic and mobility impaired] are advised to contact the University's Disability Officer to explore whether appropriate support or alternative assessment can be provided to enable successful completion of the programme. All students are encouraged to disclose any impairment to the Disability Officer so that the appropriate support may be provided. Students have the right to request that the nature of their impairment be treated as confidential.

## **17. Work-based learning**

Not applicable.

## **18. Quality assurance procedures**

The framework of policies and structures of the University which form the basis for quality assurance and standards for academic programmes are described in the Teaching Quality Handbook and include procedures for:

- Programme and module development, monitoring and review
- Students assessment, progression and awards;
- Assessment, moderation and external examining.

### **18.1 The Programme Management Group (PMG)**

The function of the Group is to ensure that the programme provision:

- aligns with the Framework for Higher Education Qualifications (FHEQ - Level 7) and the Framework for Qualifications of the European Higher Education Area (FQ-EHEA);
- recognises and adheres to the Quality Assurance Agency (QAA) Quality Code in terms of academic quality and standards and to subject benchmark statements: Master's degrees in Business and Management (2007).

### **18.2 Methods for evaluating and improving the quality and standards of teaching and learning**

The PMG will undertake a number of activities to ensure its function in relation to continuous maintenance, review and improvement of quality and standards relating to teaching, learning and assessment. These will include mechanisms such as:

- preparation and scrutiny of annual module leader review response to identify any issues, areas of good practice for dissemination and consideration of future development;
- regular PMG meetings;
- responses to External Examiner reports regarding commentary on quality and standards of the programme;
- preparation of the Annual Programme Manager Report (APMR), approved by the Dean and scrutinised by the University Academic Quality and Standards Committee (AQSC);
- periodic review and revalidation (including external consultation and input);
- regular stakeholder meetings with industry representatives/employers via, for example, the School Advisory Council.

### **18.3 The Programme Committee**

The role of the Committee (which includes student representation) will be to discuss general issues relating to teaching, learning resources, curriculum and careers guidance. The Committee which will normally meet twice a year will consist of the following:

- The programme manager (with responsibility for all aspects of the day-to-day academic management and administration of the programme);
- The Dean of SAFE or his deputy;
- Academic staff representatives (module leaders and those with significant responsibility for or input to the programme);
- Two student representatives, elected by their peers

### **18.4 Staff Development priorities**

These include'

- Institutional staff development courses;
- Attainment by all staff of formal teaching qualification ~
- SAFE staff development activities.

## **19. Marking guides and assessment regulations**

Details of the University marking criteria for coursework and examinations and the regulations for assessment and progression are available on the intranet and Gateway: <http://www.rau.ac.uk/study/academic=policies=and-procedures/assessment-regulations.and-marking-criteria>.

## **20. Ownership of programme specification**

The programme management group, under the authority of the School of Agriculture, Food and Environment has responsibility for the programme.

All core modules are owned by SAFE except module 4xxx, Business Development, which is owned by the School of Business and Entrepreneurship.



## 21. Curriculum map

Programme Outcomes	4233 Computing and Information Technology in Precision Agriculture	4236 Crop Production Technology (20)	4234 Livestock Production Technology (20)	4235 Environmental Technology (20)	4230 Production Resource Management (20)	4232 Business Development (20)	4231 Masters Research Project (60)
Knowledge and Understanding							
A1	X	X	X	X	X		X
A2	X		X	X	X		X
A3	X	X			X	X	X
A4	X	X		X	X		X
Intellectual Skills							
B1		X	X	X	X	X	X
B2	X		X				X
B3		X	X	X	X	X	X
B4		X	X	X	X	X	X
B5		X	X	X	X	X	X
Practical/Professional Skills							
C1		X	X	X	X	X	X
C2							X
C3							X
C4		X	X	X	X	X	X
C5						X	X
C6						X	X
Transferable Skills							
D1	X	X	X	X	X	X	X
D2	X		X				X
D3	X	X	X	X	X	X	X
D4			X				X
D5	X	X	X	X	X	X	X

## **22. Career prospects**

[Provide guidance on typical career pathways available on successful completion of the programme]

The agricultural technology systems industry is seeking graduates with excellent business management skills and entrepreneurial talent.

This MSc will equip students for management careers across a number of disciplines within the emerging and established agricultural technology business sector e.g. agricultural systems marketing, technology service provision, service support, data management, operational management and project management.

In addition, innovation and entrepreneurial skills are developed and honed throughout the programme which will enhance the prospect of successful business start-up opportunities/ options.

As stated above, this programme is focused on developing technically accomplished graduates who can operate in the agricultural and agricultural related industry space in a management or technical capacity.

Its combination of technical aspects and business development will produce a unique skill set within its graduates whose potential career prospects will be extensive. These might include:

- Agriculture technologist in the new areas of data capture and processing.
- Agriculture business consultant
- Applications specialist
- Data analyst
- Farm/enterprise manager - precision farming (technology systems manager)
- Information technology manager
- Marketing manager
- Operations manager
- Plant manager
- Product manager
- Project manager
- Technical specialist
- Technical services manager/ representative/ sales professional
- Technical manager (animal science agriculture)
- Test analyst
- Quality assurance manager
- Own start up or a diversified technology enterprise
- Technology systems related business;
- precision farming management - using technology systems in farming activities;

- operations - managing agricultural operations on large-scale enterprises

In addition, the programme will assist students in progressing careers in:  
International institutions - UN (World Food Programme), IFAD, FAO, IFPRI;  
Government and statutory bodies - ministries and departments, Defra, DfID, FSA;  
Business and Industry - major agricultural and food supply companies, consultancy, and technology companies;  
NGOs - Local food associations, aid and development organisations;  
Education - development of educational materials  
Academia and Research - lecturer, PhD;

At the Royal Agricultural University, we pride ourselves on our strong industry links and the opportunities offered to our students. Leadership and enterprise feature strongly at the RAU, and our graduates have gone on to become employed in wide-range of different careers across the globe. On average over the last five years, 98% of our graduates have gone into employment or further study with six months of graduation.

### **23. Further information**

RAU website

### **24. Module reference sheets**

See Fig 2 and attached