

**DAgriFood Sustainable Food Quality for Health (part-time flexible)**  
**For students entering in 2017/8**

Awarding Institution:	University of Reading
Teaching Institution:	University of Reading
Relevant QAA subject Benchmarking group(s):	
Programme length:	6 years
Date of specification:	15/Aug/2017
Programme Director:	Prof Carol Wagstaff

**Summary of programme aims**

The Professional Doctorate in Agriculture and Food (DAgriFood) programme aims to offer food industry employed professionals the opportunity to develop their professional roles and to implement an independent programme of research within the workplace. The DAgriFood programme provides an award at doctorate level that is distinct from a traditional PhD award and is directly relevant to the needs of the individual's professional work setting.

The DAgriFood programme consists of a doctoral level research project conducted in the workplace coupled with a flexible taught component of postgraduate training in science, technology, engineering and research practice.

The taught component aims to provide a depth of understanding at the cutting edge of current knowledge across a broad base of disciplines relevant to the modern food industry. The programme has been designed as flexible, modular training to allow for part-time study to enable participants to balance study with work. As a programme with a research component, training in research skills and the practice of research is fundamental, particularly the critical evaluation of research findings and the skills required for planning and execution of original research appropriate to a professional context.

To link the taught and research elements of the programme, participants will have the opportunity to produce a reflective portfolio of professional practice of research to demonstrate the relevance of learning and skills development to their own professional context.

A flexible pathway delivers training that crosses traditional skill disciplines within the fields of food and agricultural science and the doctoral programme brings the opportunity to engage in critical reflection upon existing scientific literature and current state-of-the-art research findings towards the planning and execution of original industry-based research. Graduates of the programme will acquire cognitive, practical, professional and transferable skills to enable them to assume leadership roles within the industry.

This programme is delivered through the AgriFood Training Partnership (AFTP), which was established with funding from the Biotechnology and Biological Sciences Research Council (BBSRC) following the success of the Food Advanced Training Partnership which preceded it. The AFTP is a formal collaboration between university, industry and research partners to foster the development of high-level skills in the agri-food sector.

Overall, the AFTP programmes aim to:

- Provide learning opportunities at the cutting edge of knowledge relevant to career development of professionals working in the food industry.
- Provide flexible learning pathways that allow for time constraints and changing strategic needs of the food industry.
- Support the enhancement of personal scholarship and professional development of students to increase their personal impact in the workplace.
- Encourage research-based solutions to challenges facing the modern food industry.
- Encourage food industry employers to become partners in developing their employees' scientific, technical and professional skills.

**Transferable skills**

Participants are encouraged to act independently in planning tasks with the use of feedback to reflect on their performance and assess the appropriateness of current levels of knowledge and skill. Participants are expected to acquire an ability to think analytically, to develop frameworks for considering and resolving complex problems and to discriminate between persuasive and unpersuasive arguments. In addition, participants will be used to presenting arguments (both technical and general) orally and in writing and should be able to present such arguments clearly and concisely. Participants will be able to research a variety of sources in libraries and on the internet, and, in particular, to research and assess academic literature. Particular elements of the programme expose participants to the use of information technology and encourage the development of general professional capabilities, including recognition of deadlines and effective time management.

On completion of all programmes, participants should be able to demonstrate:

- Monitoring of own learning and development to identify learning needs and to plan and manage their acquisition
- Effective and scientifically rigorous communication of scientific information in oral and written formats
- Critical evaluation of information from a variety of sources to develop understanding and make decisions

On completion of the DAgrriFood programme, participants should be able to demonstrate:

- Designing and executing an independent research project or portfolio of research based on an original hypothesis
- Managing human, financial and physical resources as appropriate to achieve project aims
- Effective time-management and prioritisation of work tasks
- Reflective and self-critical approach to research and professional development
- Professional and intellectual skills to deliver leadership, inspiration and motivation of others

### Programme content

The programme is modular and designed to be completed by part-time study.

The minimum duration of study for the award of DAgrriFood is 4 years and the maximum duration is 6 years. Participants combine a modular taught component with a research component including a work-based research project leading to a doctoral thesis with a total of 540 credits for the programme.

Normally, any learning or assessment completed as *ad hoc* modules must have been completed in the five years prior to initial registration for a programme qualification in order to be eligible for Recognition of Prior Learning (RPL).

The research components are core to the DAgrriFood programme, for which participants will design and conduct an independent research project leading to a thesis on a topic(s) approved by the Programme Director and the research project supervisor(s).

The project(s) is conducted within the participant's workplace with additional access to facilities and expertise within the AFTP. The project will be supervised by at least one academic supervisor (a permanent member of academic staff at the awarding institution) and one company-based supervisor. Supervisors will be approved by the awarding institution and may be drawn from any department that is appropriate for the content of the project e.g. science, economics, law, social sciences. The project proposal will be developed by the student in consultation with supervisory team and must be agreed before work commences. The project proposal document can form part of the *Portfolio of Professional Practice of Research* if the student wishes to complete this. Alongside the research project, participants have the opportunity to complete a *Portfolio of Professional Practice of Research*, which is a reflective portfolio that records the impact of the participant's research and taught learning within the workplace and on their individual professional practice.

It is a requirement for the award of DAgrriFood that participants complete *Principles and Practice of Research in Industry*, which is a 420 or 440 credits unit of study including the work-based research project, a taught module in *Research Methods* which contributes to the total number of taught credits studied. Participants take taught modules and/or a *Portfolio of Professional Practice of Research* for the remainder of their credits. Participants select their elective taught credits from a list of optional modules which are grouped by linking thematic pathways. The total number of credits required are dependent on the programme of study and the modules chosen being subject to agreement with the Course Tutor, and the Programme Director or Advisor. Taught modules are delivered in a blended learning format that comprises of distance learning via a virtual learning environment (VLE) to support, in many instances, an intensive residential study week of 3-5 days. The credit requirements are standardised at 540 credits for a DAgrriFood, 100 or 120 credits from the taught component, but there is some flexibility as to how these can be achieved.

#### *Principles and Practice of Research in Industry*

Code	Title	Credits	Level
FZDRP1	Work-based Research Project (DAgrriFood Core module)	420	8
FZMR05	Research Methods (DAgrriFood core module)	10	7

Participants who have undertaken an equivalent 10 credit module to Research Methods at another institution and are able to demonstrate to the satisfaction of the Programme Tutor that the learning outcomes are appropriately matched will be exempt from this module.

#### *Optional Module and Pathway Selection*

Participants select their optional modules from a list available from the AFTP administrative office subject to agreement by the Programme Director.

Optional Modules are grouped into the following thematic *pathways*:

- *Sustainable Practices in Food Production*
- *Nutrition, Food and the Consumer*

- *Managing Risk and Food Safety*
- *Food Structure for Health and Quality*

Up to a maximum of 50% of the total taught credits may be selected from an extended list of optional modules delivered by partner Higher Education Institutions from within the AgriFood Training Partnership. In a few cases there are modules available at different institutions with significantly overlapping content and participants *will not be permitted to take two modules with substantially similar content to count towards a single qualification*. Module exclusions are provided on relevant module description forms.

These additional modules will be made available to the participants as and when they are approved by the Board of Studies for the School of Chemistry, Food and Pharmacy, University of Reading and the UoR-AFTP Teaching and Learning Forum. Participants will be able to select from this extended list subject to discussion with and approval from the AFTP tutor and/or the Programme Director or advisor.

As part of their optional credits, participants may complete modules selected from the *Flexible Learning Plan*. This is a unique aspect of this programme, which allows participants to agree a learning route with the AFTP tutor to acquire skills and training that supports their personal and professional needs. Participants may elect to complete *only one* of the *Personal Learning* modules, that which is most appropriate to their personal, academic and professional needs and subject to agreement with the course tutor. This *Flexible Learning Plan* allows for flexibility of learning pathways, including study of taught modules selected from other UK Higher Education institutions or from other approved training providers.

Further module options will become available subject to individual module approval by the Board of Studies. The full list of optional modules are available from the AFTP administrative office. All module selections are subject to availability in any given year and to timetabling constraints.

### **Part-time or modular arrangements**

The programme is delivered as a part-time modular programme to deliver a total of 540 credits for the doctoral award. One academic credit represents 10 hours of participant effort spent on learning activities, which includes all forms of study, taught contact time, preparation of assignments, revision and assessment. Participants are required to enrol online every subsequent year of study whether they elect to take modules or not.

The taught and research components of the programme are intended to fit within the participant's existing workload with additional study as required.

To qualify for the award of DAgriFood, the participant must achieve an overall weighted mean of at least 50 in taught modules with no module mark below 40.

Where a participant has failed to achieve the required module mark they will, subject to agreement from the Programme Director, be eligible to re-submit their assignments, in line with the University's Policies and Procedures. The deadline for re-submission will be limited to 6 months. Where a participant fails to re-submit their work within this time period or without following the university's policies and procedures for extenuating circumstances they will have been deemed to have failed to meet the requirements for the programme.

### **Progression requirements**

#### *DAgriFood*

Progress will be monitored on an annual basis via the Board of Studies. The Board of Studies has the option to recommend the termination of the participant's enrolment on the programme if progress in taught modules is not meeting the required standard. In this eventuality, the participant may qualify for the award of a lesser qualification as an exit award.

Six months after commencing the research component of study and thereafter at 12 monthly intervals, the participant and supervisors will be required to complete a report on the progress of the research project to be submitted to the Programme Director. The Programme Director or his/her nominated delegate will review these reports to assess progress and where there is a concern a formal action plan will be drawn up and agreed between the participant, academic and industrial supervisors along with the Programme Director. In addition to the report on progress, the participant will be required to complete an evaluation of supervisory arrangements. The report at **6 months** is accompanied by a brief summary (3 pages maximum) of the agreed project plan including aims and objectives with timelines and milestones.

The report at **18 months** is accompanied by a detailed written report (40 pages maximum including tables and figures) on the research project that includes:

- An abstract summary of the report
- An introduction giving the background to the work and a critical review of the relevant literature
- A clear statement of the aims of the project
- A description of the methods used
- The results achieved, progress and attainments to date
- A thorough evaluation and discussion of results obtained

- An outline for future work
- References
- Details of any posters or presentations by the student

If the participant has drafted, submitted or had accepted for publication a research paper in a reputable refereed journal, then this may be submitted instead of the report if accompanied with an indication of the extent of the student's contribution to the work. The paper must relate to the doctoral project and represent a significant part of that work to date. The report at 18 months will be used to assess whether the participant should progress further towards a Professional Doctorate or seek to downgrade to a lesser qualification.

The report at **42 months** is to be accompanied by a thesis plan that has been agreed with the supervisors.

At any stage where there is concern about the participant's progress, a formal action plan will be drawn up and agreed between participant, academic and industrial supervisors and the Programme Director. In exceptional cases this may include termination of the participant's enrolment on the programme.

### **Summary of Teaching and Assessment**

The teaching is organised in taught modules and portfolios and a work-based research project module. Taught modules involve a combination of lectures, tutorials, workshops, seminars, practical sessions, delivered as blended learning including face-to-face teaching and distance learning where appropriate to learning outcomes. Taught modules are assessed by coursework assignments, including essays, case studies, oral presentations and module examinations, as specified in individual module descriptions.

The assessment of the portfolio of professional practice and research project is based on a written portfolio and thesis, respectively, and an oral presentation of the work undertaken followed by a *viva voce* examination. The written portfolio and thesis are independently assessed by a panel comprising two examiners, including one external examiner.

Feedback on assessment will be provided by variety of means dependent on the context of the assignment. For example, written feedback on distance learning modules will be provided via virtual learning environment assessment tools, whereas feedback on oral presentations will be a mix of verbal and written feedback.

However, in all cases feedback will address performance against assessment criteria, including transferable skills. The following provide a classification guide for each module with the final degree classification being determined in accordance with the procedures of the University of Reading which can be found in full at:

<http://www.reading.ac.uk/web/FILES/exams/PGclassification-post-2008.pdf>

Mark Interpretation

70 - 100% Distinction

60 - 69% Merit

50 - 59% Good standard (Pass)

Failing categories:

40 - 49% Work below threshold standard

0 - 39% Unsatisfactory Work

### **Admission requirements**

To qualify for entry to this programme, applicants must fulfil the following requirements:

- The applicant has obtained an undergraduate honours degree in the 1st or 2nd class range, or international equivalent, in a relevant pure or applied science, technology or engineering subject.
- A minimum of one year of relevant full-time work experience.

Applicants who do not meet the academic requirement, but can demonstrate commensurate professional experience will be considered for admission to study toward a PgCert from which they may then transfer to DAgrFood/MSc/PgDip status given satisfactory performance. For applicants with prior learning and prior experiential learning, the policy and procedure for the Assessment of Prior (Experiential) Learning (AP(E)L) will be followed.

All applicants will be interviewed prior to admission.

**Admissions Tutor:** Dr Carol Wagstaff (Programme Director)

### **Support for students and their learning**

University support for students and their learning falls into two categories. Learning support is provided by a wide array of services across the University, including: the University Library, In-sessional English Support Programme, the Study Advice and Mathematics Support teams and IT Services. There are language laboratory facilities both for those students studying on a language degree and for those taking modules offered by the

Institution-wide Language Programme. Student guidance and welfare support is provided by Personal Tutors, School Senior Tutors, the Students' Union, the Medical Practice and the Support Centres. If a student has a general enquiry and is unsure where to seek help, they should visit their Support Centre. There are five Support Centres across the University, including one based at the London Road Campus. The Support Centre will be able to advise on matters such as extenuating circumstances, module selection, suspensions, withdrawals, timetable queries and transferring programme. The Support Centre will also be able to signpost students to Carrington building where other University services related to disability, financial support, counselling and wellbeing, accommodation and careers can be found. More information on what student services are available can be found here: <http://student.reading.ac.uk/essentials>.

### **Career prospects**

This programme offers an innovative approach to the delivery of training to the food and agricultural industries, and is intended for early to mid-career professionals seeking to deepen their understanding of scientific and technical issues relevant to their career progression. Participants will be employed in the food and agricultural industries and will remain in this employment throughout the course and thereafter. The skills and capabilities developed through the programme are expected to enhance the career progression of the students within their professions. Participants will benefit through access to the knowledge and skills base that underpins the development of the industry, and through establishing peer networks. This is increasingly important in maintaining the competitive edge of the UK food and agricultural industry as the market becomes more internationally competitive.

### **Opportunities for study abroad or for placements**

Participants will be able to undertake the project module at any approved institutional or industrial establishment, dependent on appropriate supervisory arrangements being in place. The food and agricultural industry operates globally and therefore there may arise opportunities for study abroad within the context of the project module. The *Flexible Learning Plan* may include study abroad subject to approval by the Programme Director.

### **Programme Outcomes**

Typically, holders of the qualification will have the qualities and transferable skills necessary for employment requiring the exercise of personal responsibility and largely autonomous initiative in complex and unpredictable situations, in the food and agricultural industries or equivalent environments. In particular, successful students will gain the following knowledge, understanding and skills:

#### **Knowledge and Understanding**

##### **A. Knowledge and understanding of:**

- A1. Advanced concepts and techniques in scientific disciplines relevant to the food and agricultural industries
- A2. Global food security issues and their impact on the food and agricultural industries
- A3. Background scientific, technical, commercial and policy literature
- A4. Research methods and study design
- A5. Project planning and management
- A6. Current professional developments within field of work

##### **Teaching/learning methods and strategies**

- Reflection on course materials and related research findings (A1-A6)
- Academic led teaching and supervision (A1-A6)
- Small group work discussion (A2, A6)
- Case studies and problem-based learning (A1-A6)
- Distance learning (A1-A3)
- Professional experiences (A5, A6)
- Assessment*
- Coursework assignments (A1-A6)
- Research project dissertation (A1-A6)

#### **Skills and other attributes**

##### **B. Intellectual skills - able to:**

- B1. Think logically and evaluate critically research and advanced scholarship across disciplines
- B2. Plan and implement tasks at a professional level to solve problems related to the agricultural and food industry sectors

##### **Teaching/learning methods and strategies**

- Activities based on taught course materials, related research, reading, participating in seminars and workshops (B1-B3)
- Research project (B4)

B3. Relate systematic evidence to issues arising in professional practice  
B4. Plan, conduct and write a report on an independent research project

*Assessment*  
Coursework assignments (B1-B3)  
Research project dissertation (B1-B4)

**C. Practical skills - able to:**

C1. Apply, or adapt, practical instructions safely and accurately  
C2. Interpret quantitatively the results of experiments undertaken by themselves or others  
C3. Devise experimental methods appropriate for tackling a particular problem  
C4. Use statistical and related methods in a professional context  
C5. Access wide range of literature and data using bibliographic and IT skills  
C6. Communicate ideas and conclusions clearly and effectively to specialist and non-specialist audiences

**Teaching/learning methods and strategies**

Activities based on taught course materials and related research and readings (C1-C6)  
Assignment preparation for taught modules (C2-C6)  
Academic-led practical exercises (C1)

*Assessment*  
Assignments and dissertation will report the results of such activities (C1-C6)

**D. Transferable skills - able to:**

D1. Monitor own learning  
D2. Communicate orally and in writing with scientific rigour  
D3. Critically evaluate information from a variety of sources to develop understanding and make decisions  
D4. Project planning and management  
D5. Data analysis  
D6. Report writing

**Teaching/learning methods and strategies**

Discussion with instructors, supervisors and peers (D1, D2)  
Taught course materials (D2-D6)  
Presentations at workshops (D2, D5)  
Research project (D1-D6)

*Assessment*  
Coursework assignments (D1-D3, D5)  
Literature reviews (D2, D3, D5)

**Please note - This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if he/she takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in the module description and in the programme handbook. The University reserves the right to modify this specification in unforeseen circumstances, or where the process of academic development and feedback from students, quality assurance process or external sources, such as professional bodies, requires a change to be made. In such circumstances, a revised specification will be issued.**