PROGRAMME SPECIFICATION (Preview)

Master of Science in Sustainable Food and Natural Resources

Awarding institution	Liverpool John Moores University
Teaching institution	Centre for Alternative Technology
JACS Code	D448
Programme Duration	Full-Time: 18 Months, Part-Time: 30 Months
Language of Programme	All LJMU programmes are delivered and assessed in English
Subject benchmark statement	Whilst no QAA Subject Benchmark Statements are directly applicable, the programme has taken account of the QAA's Masters degree characteristics documents (2010). At an undergraduate level, some subject scoping can be taken from Agriculture, horticulture, forestry, food and consumer services (2016) and Geography (2014)
Programme accredited by	
Description of accreditation	
Validated target and alternative exit awards	Master of Science in Sustainable Food and Natural Resources Postgraduate Diploma in Sustainable Food and Natural Resources Postgraduate Certificate in Sustainable Food and Natural Resources
Link Tutor	Colm Bowe

Educational aims of the programme

To provide students with an advanced understanding of the importance of, and approaches to, sustainable food production and natural resource management within the context of wider sustainability and adaption to global environmental issues.

The specific aims of the programme are:

• To critically reflect upon the causes, seriousness, and urgency of environmental and climatic change with respect to how these factors influence sustainability thinking and adaptation;

• To hone the ability to identify and appraise the complex influences that technical, political, legal, social, cultural and non-cultural factors have on the provision, supply, demand and use of food and natural resources;

• To develop technical evaluation skills to become systematic, logically iterative and imaginative, in order to make sound judgements within the limits of uncertainty and incomplete data, and communicate evidence and conclusions clearly to specialist and non-specialist audiences;

• To carry out an extended independent piece of original research and writing on a topic of the students' choosing within the field of sustainable food production, the food supply chain, the management of natural resources, land and environmental management or the social, political or economic contexts of food and natural resource management;

• To develop the self-confidence and ability to act on initiative, to prepare for the rigours and demands of employment or further postgraduate study in areas related to sustainability, food and natural resource management;

• To make informed decisions based on an appraisal of academic evidence combined with practical experience and directed research, in order that the ability to synergise theory and practical knowledge into a deep understanding may be developed;

• To understand and analyse individual strengths and competencies and fulfil each student's potential for self-development into an independent self-reflective learner and practitioner in their chosen area of interest.

Alternative Exit/ Interim Award Learning Outcomes - Postgraduate Certificate

A student who is eligible for this award will be able to:

Understand the broad concepts of sustainability and adaptation in the context of sustainable food production and the management of natural resources. They will be able to engage with and take an informed position on theories and practice in relation to the field of sustainable food and natural resource management.

Alternative Exit/ Interim Award Learning Outcomes - Postgraduate Diploma

A student who is eligible for this award will be able to:

Engage with and take an informed position on advanced levels of theories and practice in relation to the field of sustainable food and natural resource management. Students will be able to explore, test, identify and apply appropriate research methodologies and they will be able to demonstrate appropriate levels of critical analysis, reflection and contextual awareness in a range of modules associated with the field of study.

Target award Learning Outcomes - Master of Science

A student successfully completing the programme of study will have acquired the following subject knowledge and understanding as well as skills and other attributes.

A student who is eligible for this award will be able to:

1. Demonstrate a holistic, systematic and sophisticated understanding of the concepts, issues, and theories of sustainable food and natural resource management within the context of environmental, social and economic sustainability (e.g. urgency of environmental change, population pressures, ecosystem services, adaptation capacity and resilience building);

2. Present a sophisticated appreciation of the influence that technical, engineering, legal, political, social and cultural perspectives can have on food production and the management of natural resources;

3. Gain specialist knowledge of sustainable food and natural resource management, attitudinal and behavioural issues surrounding food and resource use and management;

4. Gain experience in techniques to assess, measure and monitor natural resource use and the impacts of food production and supply and the use of natural resources on the natural environment built environment and on human societies.

5. Develop and sustain arguments in a variety of written and numerical forms, formulating appropriate questions and utilising primary and secondary evidence;

6. Critically evaluate the methodologies, analysis, conclusions and relevance, and where appropriate, propose new hypotheses from congruent argument, of current research and advanced scholarship;

7. Synthesise a clear understanding of the various attitudinal, legal, institutional and ethical considerations and developments associated with sustainability and adaptation in an area of practice;

8. Display a holistic and sophisticated understanding of how knowledge is advanced through research, and produce clear, logically argued and original written work.

9. Analyse food production and natural resource management and use, attitudes and demand in a variety of environments;

10. Demonstrate a thorough understanding of the logistical issues involved in planning and conducting scientific research and study;

11. Collate and handle data, carry out statistical analyses and modelling where appropriate.

12. Communicate effectively in written and oral forms to a wider audience;

13. Use IT to gather and use evidence and data to find, retrieve, organise and exchange new information;

14. Demonstrate clarity, fluency, and coherence in a variety of written forms and expression;

15. Organise tasks and manage time effectively;

16. Design, investigate, and present an extended and independently-conceived piece of research;

17. Work in a team, identifying individual and collective goals and responsibilities and performing in a manner appropriate to these roles.

Alternative target awards

A student who is eligible for the following awards will be able to:

Postgraduate Diploma in Sustainable Food and Natural Resources -

Engage with and take an informed position on advanced levels of theories and practice in relation to the field of sustainable food and natural resource management. Students will be able to explore, test, identify and apply

appropriate research methodologies and they will be able to demonstrate appropriate levels of critical analysis, reflection and contextual awareness in a range of modules associated with the field of study.

Postgraduate Certificate in Sustainable Food and Natural Resources -

Understand the broad concepts of sustainability and adaptation in the context of sustainable food production and the management of natural resources. They will be able to engage with and take an informed position on theories and practice in relation to the field of sustainable food and natural resource management.

Teaching, Learning and Assessment

The methods used to enable outcomes to be achieved and demonstrated are as follows:

Teaching and learning will be via interactive lectures, workshops, discussion groups, seminars, oral presentations, and practical work.

Assessments will be written, oral and practical assignments such as essays, project reports and presentations.

Intellectual skills are developed through the teaching and learning programme.

Critical analysis and problem solving skills are embedded in all modules and are taught, developed and practised through debate, workshops and all forms of practical work.

Experimental, research and design skills are further developed and practised through a broad range of coursework activities and project work. Written or verbal individual feedback is given on all work submitted.

Critical thinking and problem solving skills are assessed through written and oral assignments.

Experimental research and design skills are assessed in the dissertation.

Practical skills are taught during workshop and practical sessions.

Experimental design is taught in the Dissertation module and is embedded thought the topic via lectures and workshops, and practical work.

Practical skills are assessed via the dissertation and in core modules ‘Ecosystem services; Land-use and Waste Management’ and ‘The Science of Sustainable Food Production’ as well as in some of the optional modules.

Transferable skills are taught, developed and practised through the teaching and learning programme.

Numerical and statistical problem solving skills are taught on dissertation and in core modules ‘Ecosystem services; Land-use and Waste Management’ and ‘The Science of Sustainable Food Production’ as well as in some of the optional modules.

Assessed through written and oral assessments.

Programme structure - programme rules and modules

The MSc (180 credits) Sustainable Food and Natural Resources is achieved via completion of the 30-credit introductory core module 7501CATSCI, the three 15-credit cores modules 7503CATSCI, 7506CATSCI and 7510CATSCI, three optional 15-credit modules and the 60-credit dissertation module. Note that as options, students can only study one or the other of Applied project 7508CATSCI or Work-based project 7509CATSCI.

The PgDip (120 credits) Sustainable Food and Natural Resources exit award is achieved via completion of the 30-credit introductory core module 7501CATSCI, the three 15-credit cores modules 7503CATSCI, 7506CATSCI and 7510CATSCI plus three other 15-credit modules. Note that as options, students can only study one or the other of Applied project 7508CATSCI or Work-based project 7509CATSCI.

The PgCert (60 credits) Sustainable Food and Natural Resources exit award is achieved via completion of the 30-credit introductory core module 7501CATSCI and the two 15-credit modules, Food production and consumption 7503CATSCI and The science of sustainable food production 7510CATSCI.

Students completing the MSc programme full time will complete 120 credits in year 1 of their studies and 60 credits (dissertation) in year 2.

Students completing the MSc programme part time will complete 60 credits in year 1, 60 credits in year 2 and 60 credits (dissertation) in year 3.

Part Time students completing the MSc will have the option to study an extended duration version of 7500CATSCI to account for their mode of study. The Part Time version of the module will only be offered once per year in September and operates over a longer 9-month duration. The Part Time Dissertation route still requires 600 hours equivalence of student effort and has the same aims and learning outcomes. To study the Part Time dissertation route a student will need to be registered on the part time route of the MSc programme, and will normally be required to have previously studied at least 60 credits in a Part Time mode.

Students completing the PGDip programme full time will complete 120 credits in year 1 of their studies

Students completing the PGDip programme part time will complete 60 credits in year 1 and 60 credits in year 2

of their studies

Students completing the PGCert programme full time will complete 60 credits in year 1 of their studies

Students completing the PGCert programme part time will complete 60 credits in year 1 of their studies

Level 7 Potential Awards on completion of Master of Science

For students enrolled prior to 2020. Under the 2017 validation programme rules the modules contributing to the Core and Option Award Requirements were as follows:

Core Modules:

7500CATSCI Dissertation, Level 7, 60 Credits

7501CATSCI Sustainability and Adaption: Concepts & Planning, Level 7, 30 Credits

7503CATSCI Food Production and Consumption, Level 7, 15 Credits

7506CATSCI Ecosystem services, land-use and waste management, Level 7, 15 Credits

7510CATSCI The science of sustainable food production, Level 7, 15 Credits

Optional Modules:

7502CATSCI Environmental politics and economics, Level 7, 15 Credits

7504CATSCI Cities and Communities, Level 7, 15 Credits

7505CATSCI Energy Provision, Level 7, 15 Credits

7507CATSCI Sustainable materials in the Built Environment, Level 7, 15 Credits

7508CATSCI Applied project*, Level 7, 15 Credits

7509CATSCI Work-based project*, Level 7, 15 Credits

* Students pick either of these two modules, not both.

135 core credits at level 7

45 option credits at level 7

Following the July 2020 review of the programme, continuing enrolled students will be able to choose from the following additional options to contribute towards their 45 option credits if they consent to the changes.

7512CATSCI Theoretical approaches to transformational social change, Level 7, 15 Credits

7513CATSCI Restoration Ecology, Level 7, 15 Credits

For students who first enrol for the 2020-1 academic year forwards. Following the Periodic Programme Review (July 2020) the modules contributing to the Core and Optional Award Requirements are as described in the Module Details section below.

Students pick either 7508CATSCI and 7509CATSCI, not both. All new and continuing Part Time students completing the MSc will have the option to study an extended duration version of 7500CATSCI to account for their mode of study.

Level 7	Potential Awards on completion	Master of Science
Core	Option	Award Requirements
7500CATSCI Dissertation (60 credits) 7501CATSCI Sustainability and Adaptation: Concepts & Planning (30 credits) 7503CATSCI Food Production and Consumption (15 credits) 7506CATSCI Ecosystem Services, Land-use and Waste Management (15 credits) 7510CATSCI The Science of Sustainable Food Production (15 credits)	7502CATSCI Environmental Politics and Economics (15 credits) 7504CATSCI Cities and Communities (15 credits) 7507CATSCI Sustainable Materials in the Built Environment (15 credits) 7508CATSCI Applied Project (15 credits) 7509CATSCI Work-based Project (15 credits) 7512CATSCI Theoretical Approaches to Transformational Social Change (15 credits) 7513CATSCI Restoration Ecology (15 credits)	135 core credits at level 7 45 option credits at level 7

Information about assessment regulations

All programmes leading to LJMU awards operate within the University's Academic Framework. https://www.ljmu.ac.uk/about-us/public-information/academic-quality-and-regulations/academic-framework

For current students, this programme has the following variances to the Academic Framework, approved by Education Committee in May 2017.

(a) A variance to include 15-credit modules

(b) A variance to permit a teaching balance that weights the delivery of content to the first semester (up to 105 credits) and to reduce the delivery in semester two (up to 45 credits). The dissertation can be taken in semester 1 or 2. Student individual credit balance will vary between semesters 1 and 2 depending on whether a student studies full-time or part-time, and their choice of optional modules.

Following periodic programme review (July 2020) the programme will continue with the following variances:

1. Variance from PG.A4.2 (module-size requirements.) - 15-credit modules permitted

2. Variance from PGA4.4 (semester credit balance) - A credit imbalance between semesters is permitted

Note: Part-time students will be requested to do 60 credits of taught module in each academic year.

3. Variance from PG A4.3 (Ten credits of research skills) - This programme does not require the successful completion of a separate research skills module prior to submission of a dissertation (PGA4.3). All students must obtain a pass grade for the Research Design Proposal (10%) on 7500CATSCI before they are able to commence research on their dissertation.

Opportunities for work-related learning (location and nature of activities)

The programme offers a specific period of work-related skills in the Dissertation module (7500CATSCI) such as planning, and managing and completing an independent piece of research. Students have the option of completing a module ‘Work-based Project’ which is an individual project based within the work-place (7509CATSCI). The use of practitioners from sustainable food and natural resource industries within module teaching will also enable students to learn first-hand about the industry and meet professionals.

Criteria for admission

Other
Graduates: Normally entrants to the programme will have at least a second class degree in a subject appropriate to or compatible with food and natural resources.

Non-graduates: Students who do not possess formal qualifications but who can demonstrate that they have gained appropriate knowledge and skills equivalent to degree standard and that they will benefit from and contribute to the programme may be accepted through the Recognised Prior (Experiential) Learning (RE(P)L) process.

RE(P)L will be considered in accordance with University regulations.

Overseas qualifications
Normally a good degree (2ii equivalent) preferred with a recognised English language qualification (IELTS score of 6.5 with a minimum of 6 in each category) or Pearson score of 58-64 within 2 years prior to the programme start date (minimum score of 51 in each component for UKVI Purposes).

External Quality Benchmarks

All programmes leading to LJMU awards have been designed and approved in accordance with the UK Quality Code for Higher Education, including the Framework for Higher Education Qualifications in the UK (FHEQ) and subject benchmark statements where applicable.

The University is subject to periodic review of its quality and standards by the Quality Assurance Agency (QAA) Published review reports are available on the QAA website at www.qaa.ac.uk

Programmes which are professionally accredited are reviewed by professional, statutory and regulatory bodies (PSRBs) and such programmes must meet the competencies/standards of those PSRBs.

Support for students and their learning

The University aims to provide students with access to appropriate and timely information, support and guidance to ensure that they are able to benefit fully from their time at LJMU. All students are assigned a Personal Tutor to provide academic support and when necessary signpost students to the appropriate University support services.

Students are able to access a range of professional services including:

- Advice on practical aspects of study and how to use these opportunities to support and enhance their personal and academic development. This includes support for placements and careers guidance.
- Student Advice and Wellbeing Services provide students with advice, support and information, particularly in the areas of: student funding and financial matters, disability, advice and support to international students, study support, accommodation, health, wellbeing and counselling.
- Students studying for an LJMU award at a partner organisation will have access to local support services

Methods for evaluating and improving the quality and standards of teaching and learning

Student Feedback and Evaluation

The University uses the results of student feedback from internal and external student surveys (such as module evaluations, the NSS and PTES), module evaluation questionnaires and meetings with student representatives to improve the quality of programmes.

Staff development

The quality of teaching is assured through staff review and staff development in learning, teaching and assessment.

Internal Review

All programmes are reviewed annually and periodically, informed by a range of data and feedback, to ensure quality and standards of programmes and to make improvements to programmes.

External Examining

External examiners are appointed to programmes to assess whether:

- the University is maintaining the threshold academic standards set for awards in accordance with the FHEQ and applicable subject benchmark statements
- the assessment process measures student achievement rigorously and fairly against the intended outcomes of the programme(s) and is conducted in line with University policies and regulations
- the academic standards are comparable with those in other UK higher education institutions of which external examiners have experience
- the achievement of students are comparable with those in other UK higher education institutions of which the external examiners have experience

and to provide informative comment and recommendations on:

- good practice and innovation relating to learning, teaching and assessment observed by external examiners
- opportunities to enhance the quality of the learning opportunities provided to students

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, teaching, learning and assessment methods of each module can be found in module and programme guides.