The Global Challenge of Food Security

IEEL007 5 credit module (equivalent to 2.5 ECTS)

1. Module Leader

Iain Young

Biography.
Iain Young’s research focuses on the mechanisms underlying growth and development of fish and other aquatic animals, understanding the impact of environment, husbandry practices, nutrition and diet to improve fish yield and quality, improve sustainability of production, minimise environmental impact and improve welfare. He actively promotes cross-disciplinary approaches to address sustainability challenges, particularly those associated with food security and urban living. Iain works with third sector organisations and social enterprises to promote healthy eating, local food production, urban farming and healthy eating. He is proud to be a non-executive director of Farm Urban – a social enterprise providing education, skills and technology to bring communities together and encourage sustainable urban living.

2. Module Description

Food Security would be achieved when all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their needs and sustain a healthy life (WHO). This module focuses on this Global Food Security Challenge. Drawing on academic, grey and popular literature, we will work together on three tasks to i) frame the challenge, ii) develop and test possible solutions and iii) synthesise a solution into a coherent proposal which we will “pitch” to a panel of “stakeholders”. Throughout the module we will interact with members of the University, the surrounding “Knowledge Quarter” and Liverpool Community.

While a useful standalone module, this module also provides an excellent foundation for Module IEEL008: Local solutions to Global Challenges - The Focus on Food Security (working in Liverpool’s living lab).

3. Module Aims

This module aims:
- To extract, summarise and evaluate the tangible societal/environmental/financial impacts of food security/sustainability challenges from papers and other resources.
- To develop and evaluate a potential solution to improve (contribute to improvement of) food security – on a local, regional, national or global scale.
- To communicate clearly the project, including its background, aims, necessity, and timeliness in an engaging and well-informed manner.
- To develop confidence in understanding and communicating complex ideas.
- To improve skills in research and collaborative learning.
4. Content

The following topics will be considered on the module:
- Urban resilience
- Access to food
- Small scale urban solutions to food security
- Features of a successful food security project
- Building infographics
- Producing SWOT analyses
- Producing Impact statements
- Developing a video pitch

5. Module structure

The module will be delivered over a three-week period in two weekly sessions, a seminar (two hours) and a workshop (four-six hours) total 18-24 hours contact time).

Workshops may take place outside of the classroom and involve visits to exemplar projects in and around the Knowledge Quarter of Liverpool.

It is expected that students will spend up to 26 study hours outside of the classroom contact hours on activities including assigned reading, optional reading of areas of personal interest, homework tasks, web research and preparation for assessment and upcoming seminars.

6. Teaching methods

The teaching approach will include the following:
- Seminars
- Workshops
- Outside study visits

7. Assessment:

Assessment will be by:
- Infographic (worth 30% of the overall mark)
- Group SWOT analysis and Impact statement (worth 30% of the overall mark)
- Group Video Pitch (worth 40% of the overall mark)

Standard University policies apply with regard to late submission of assessments. There is no re-assessment opportunity.

8. Course structure:

The Indicative schedule is as follows:

Session One:
Seminar
Urban resilience, access to food- framing the problem-infographics and other devices.

Session Two:
Workshop
Visit to the Guild roof garden, rocket composter, aquaponics farm, sustainable growing walls and CTH garden. We will work together to develop an infographic articulating the food security “grand challenge”. The infographic will be “examined” and feedback provided.

**Session Three:**
*Seminar*
Green Guild Social Enterprise and other successful food security projects.

**Session Four:**
*Workshop*
Farm Urban agriculture and aquaponics, Farm Urban workshop and aquaponics system design. We will produce a SWOT analysis and impact statement illustrating possible solutions to food security challenges.

**Session Five:**
*Seminar*
Food security in an urban setting, analysis of example video pitches and explication of basic video structures.

**Session Six:**
*Workshop*
Groups will develop video pitches based on their work over the course of the module.

9. **Learning outcomes**

On completion of this module, students will be able to:

<table>
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<tr>
<th>Learning outcome</th>
<th>Assessment component which assesses this learning outcome</th>
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| Demonstrate the ability to extract, summarise and evaluate information from papers and other resources | Group SWOT analysis and Impact statement (task two)  
Individual infographic (task one)  
Video pitch (task three)                                                              |
| Demonstrate the ability to develop and evaluate a research project              | Group SWOT analysis and Impact statement (task two)                                                                     |
| Demonstrate the ability to communicate scientific information to a mixed/varied audience | Individual infographic (task one)  
Video pitch (task three)                                                              |
| Work individually to complete a piece of work (infographic - articulating the nature of the food security challenge) | Individual infographic (task one)                                                                                      |
| Work collaboratively to produce a piece of work based on their research.        | Group SWOT analysis and Impact statement (task two)  
Video pitch (task three)                                                              |
10. Skills

Key skills that will be developed:

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<tr>
<th>Skill</th>
<th>How this skill is developed</th>
<th>Mode of assessment</th>
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<tbody>
<tr>
<td>Teamwork</td>
<td>Group work (for task two and three)</td>
<td>Video pitch</td>
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<tr>
<td>Communication</td>
<td>Workshop and team interaction, then presentation of task one (infographic) and three (video pitch)</td>
<td>Group SWOT analysis and Impact statement (task two) Video pitch (task three)</td>
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11. Books, ebooks and websites:

The University Website at [www.liv.ac.uk/library](http://www.liv.ac.uk/library) provides access to many relevant books and electronic books, as well as academic journals and databases.

**Recommended Pre-Course Reading**


PRINT ISBN 9780745648088

EBOOK ISBN 9780745659299

*(Available as e-book University of Liverpool)*

**Core Texts**

*None*

**Useful Websites**


[http://www.farmurban.co.uk/](http://www.farmurban.co.uk/)

[https://www.bbc.co.uk/educationguides/zf6fr82/revision](https://www.bbc.co.uk/educationguides/zf6fr82/revision)
