

2021

Sustainable Food Sector Curriculum Co-Crete, EdTech 2021

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Féidearthachtaí as Cuimse
Infinite Possibilities

Sustainable Food Sector Curriculum Co-Create

Co-Creation for Knowledge and Curriculum review

EdTech 2021 Dr Julie Dunne

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LTTC

FSEH

T
DUBLIN
OLLSCOIL TEICNEOLAÍOCHTA
BHAILE ÁTHA CLIATH
TECHNOLOGICAL
UNIVERSITY DUBLIN

IMPACT Strategic Synergy Project – Embedding Sustainability in the Curriculum

SDG 4.7

By 2030, ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through education for sustainable development and sustainable lifestyles, human rights, gender equality, promotion of a culture of peace and nonviolence, global citizenship and appreciation of cultural diversity and of culture's contribution to sustainable development



Strategic Intent

– Strategic Objectives (2030)
& Strategic Milestones (2023)

Priorities

Being a
Beacon for
Sustainability

Objectives (2030)

We will be a leader in informing public debate on sustainability, stimulating awareness and action

We will be recognised for our commitment to real action on sustainability, reducing our carbon footprint and meeting global sustainability standards such as STARS @

A new generation of TU Dublin graduates will be leading the sustainability agenda with passion and purpose

Our research community will be internationally recognised in 5 key research fields

We will be known for the creation of new knowledge and the development of timely & practical solutions that address the SDGs

Milestones (2023)

A campaign of awareness-building will be in place, supported by an events programme of international thought-leader inputs and research

We will be one of the top Irish universities for sustainability, recognised through the achievement of Green Flag awards for all campus locations

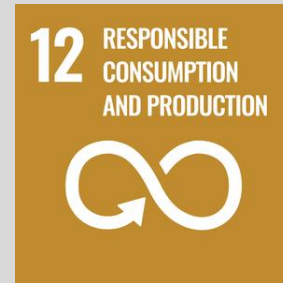
All programmes will have sustainability as a learning outcome and every learner will engage in practice-based research

We will be active participants in relevant global networks; and our research activities will have grown and be concentrated in 5 key fields, delivering a weighted portfolio of research outputs

Creating
Responsible
Global Citizens

Tackling Global
Challenges

Food – a key role in global sustainability



School of Food Science and Environmental Health, Environmental Sustainability and Health Institute: Food Research Area



The current challenge

Across the entire Food Programme team's expertise in Food Sustainability, there is a deficit in

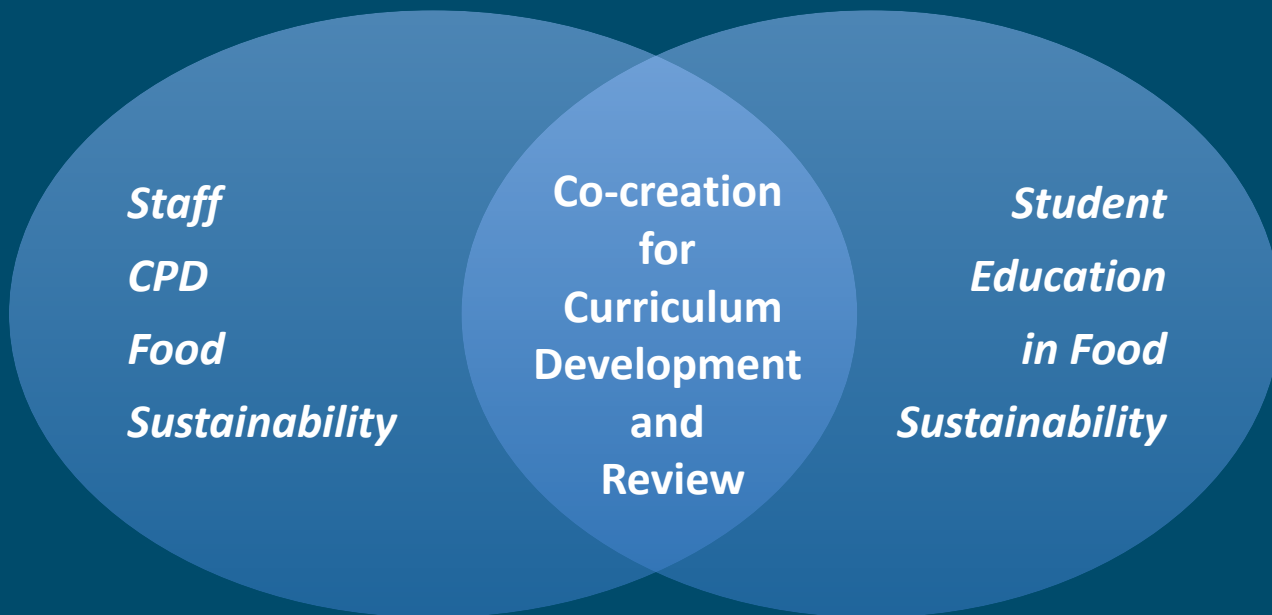
- (1) knowledge of sustainability broadly and as it relates to food*
- (2) how to best integrate sustainability competencies.*

This is curtailing our ability to review the Food curricula to embed sustainability.

Sustainable Food Sector Curriculum CoCreate

Develop and implement a bespoke staff CPD module in Educating for Food Sustainability with a particular focus on SDGs related to Food as a catalyst for reviewing all Programme and Module Learning Outcomes.

Develop and implement a bespoke student optional module aiming to (1) develop their sustainability competency and (2) to allow co-creation for the curriculum review process





Co-CREATE

Collaborative Curriculum Reimagining
and Enhancement Aiming to
Transform Education



How will students be included as meaningful partners?

Develop key basic Sustainability Attributes

Involved in curriculum review

Students are included as co-creators of the curriculum

Graduate skillset as future leaders in Food Sustainability



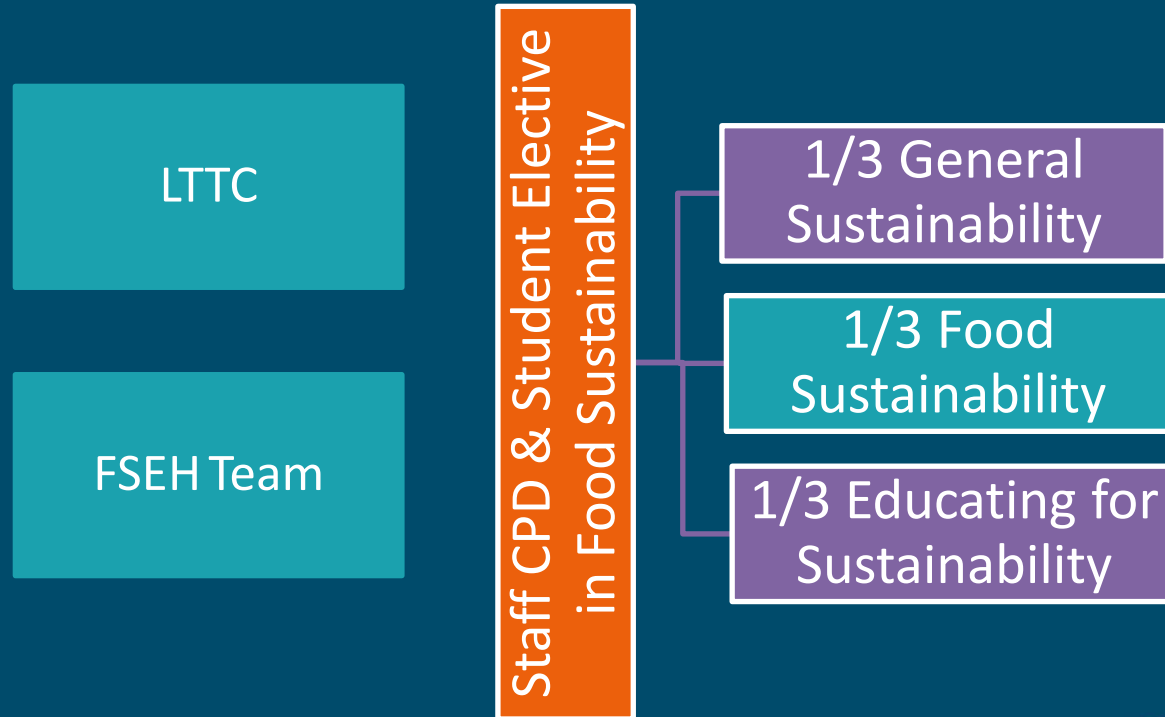
Co-CREATE

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Transform Education

Sustainable Food Curriculum Co-Create

Phase 1 Oct-Nov 2020 Modules Development & Validation

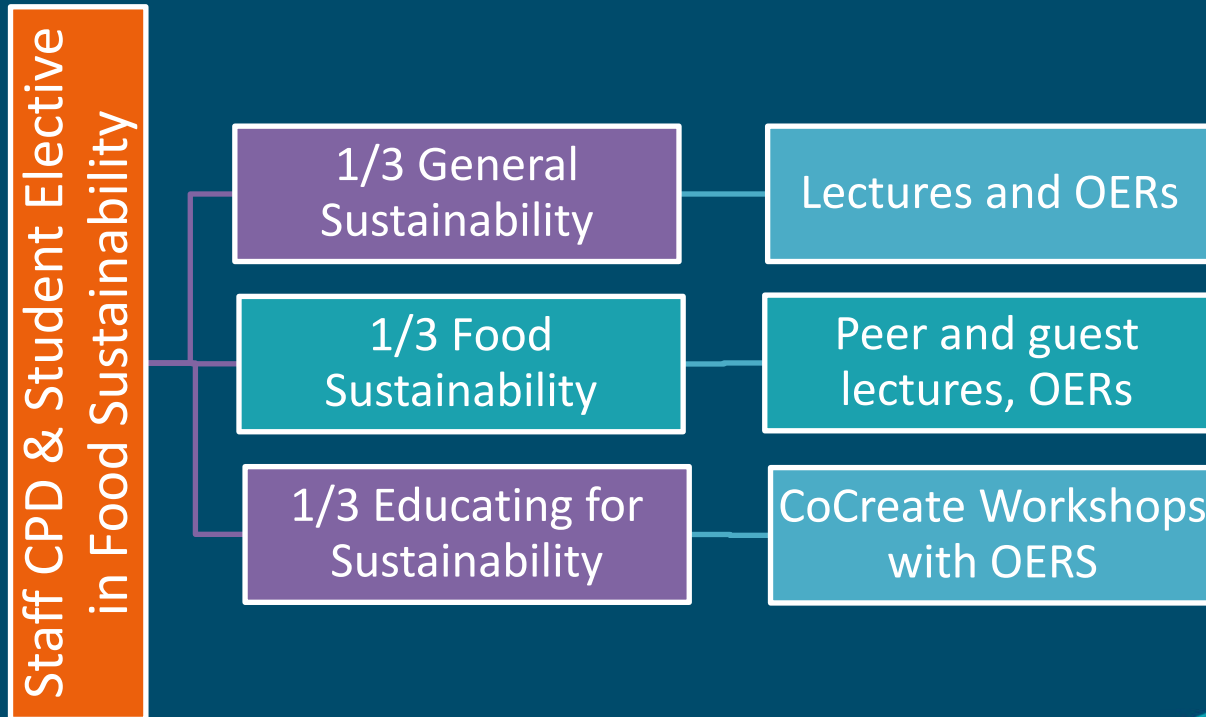
Phase 2 Semester 2 2020/21 Modules Delivery



Sustainable Food Curriculum Co-Create

Phase 1 Oct-Nov 2020 Modules Development & Validation

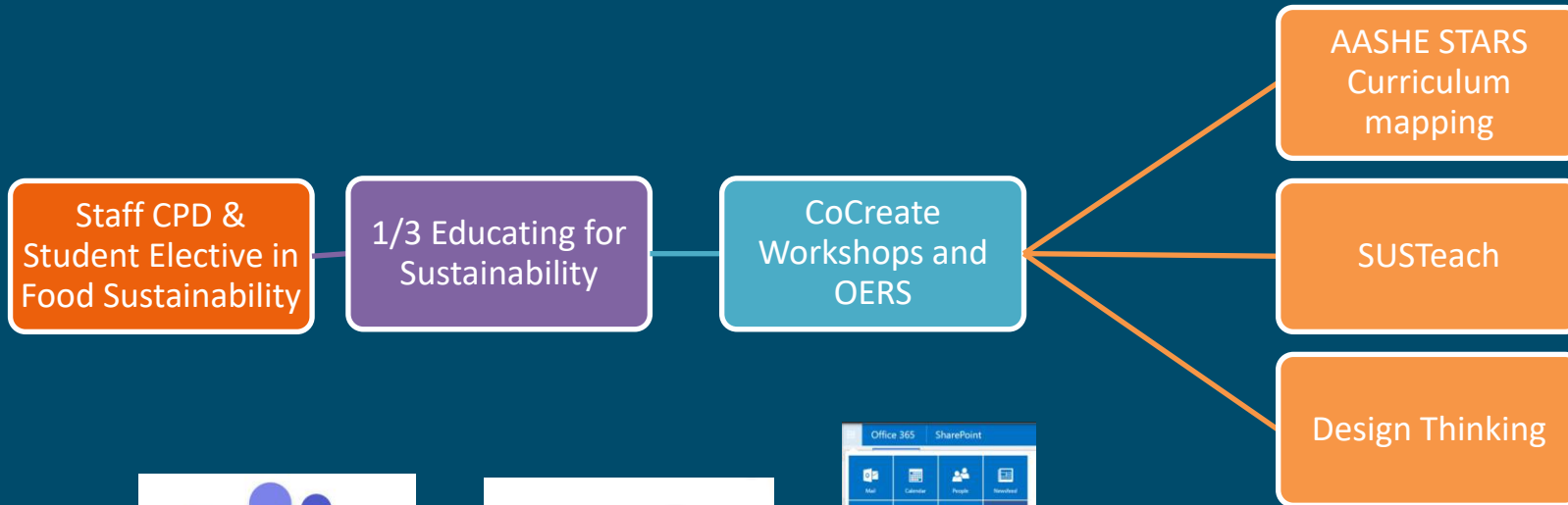
Phase 2 Semester 2 2020/21 Modules Delivery



Sustainable Food Curriculum Co-Create

Phase 1 Oct-Nov 2020 Modules Development & Validation

Phase 2 Semester 2 2020/21 Modules Delivery



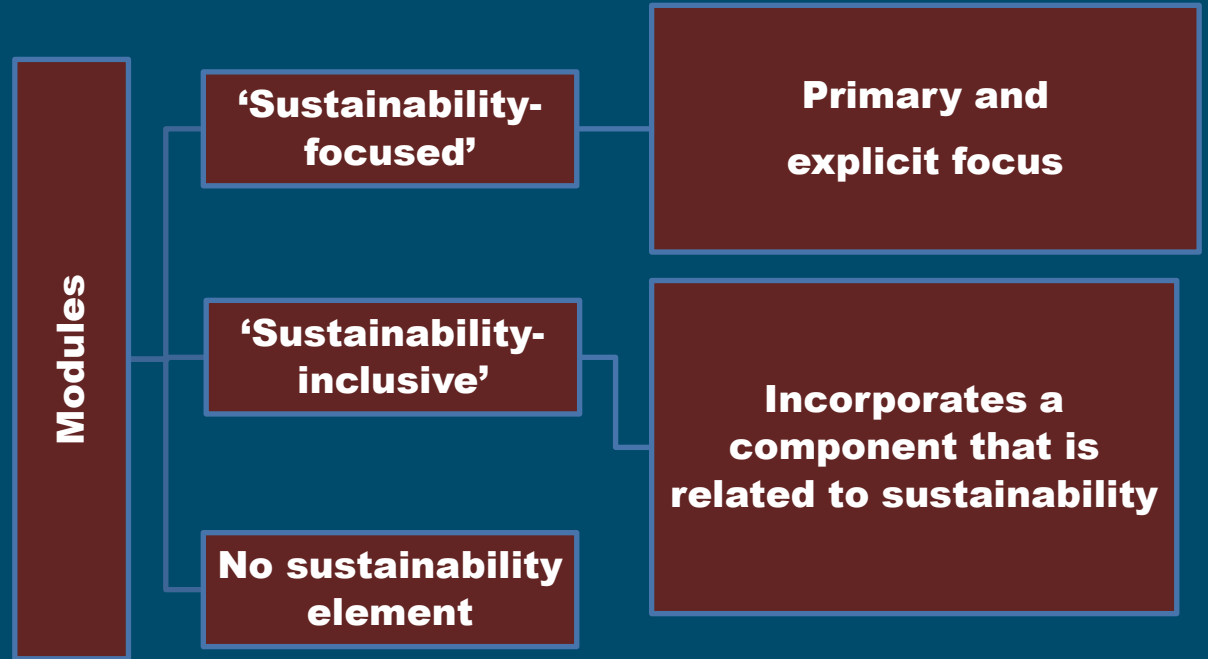


Co-CREATE

Collaborative Curriculum Reimagining
and Enhancement Aiming to
Transform Education



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a program of aashe



Assessment strategy



Reflection on
before/after
Sulitest




Ongoing
reflection-in-
action on personal
development and
transformation




Food Module
Descriptor review

Open Education Resources (OERs)

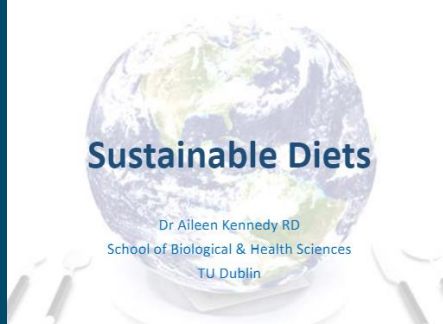


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IMPACT
COMMUNITY - CAPACITY - CULTURE

TOTAL: OPEN EDUCATIONAL RESOURCES



Sustainable Diets

Dr Aileen Kennedy RD
School of Biological & Health Sciences
TU Dublin

The New Green Deal
-Making the CAP Fit
The Politics of Sustainability

Fintan Moran

[Arrow@TU Dublin](https://arrow.tu-dublin.ie) - the research repository of
[Technological University Dublin](https://www.tu-dublin.ie)

Open Education Resources (OERs)

Learning Outcomes (LO): (to be numbered)	
For a 5ECTS module a range of 4-10 LOs is recommended	
On Completion of this module, the learner will be able to	
1	Describe the basic terminology of chemical analysis and explain the decision process for choice of methods, and use of validated methods.
2	Describe the principles of sampling
3	Explain the uses of traditional sample preparation techniques <u>as well as potential for greener solvents for extraction of bioactives.</u>
4	Describe aspects of laboratory Quality documentation for analytical methods
5	Describe applications of chemical techniques in food analysis, <u>and the role of green chemistry in analytical methods.</u>
6	Describe applications of instrumental techniques including rapid methods in food analysis
7	Discuss <u>global challenges food fraud</u> in the context of food chemistry and analysis: <u>food fraud and the impact of climate change on food chemical contaminants.</u>
8	Develop enhanced numeracy through in-class and in-practical calculations, including identification and reduction of variance.
9	Develop enhanced laboratory skills to perform high quality food analyses for a range of food constituents
10	Develop enhanced research and scientific writing skills to report on food analysis experiments

Open Education Resources (OERs)

M1: Module Descriptor Template

Module Code	Pre-requisite Module codes	Co-Requisite Modules code(s)	ISCED Code	Subject Code	ECTS Credits	NFQ Level (CPD)#
TBC	NA	NA			5	9
Module Title	Educating for Food Sustainability					

This Header should be repeated on each page of the Module

School Responsible: Food Science and Environmental Health

TÁ LEAGAN GAELIGE DEN FHOIRM SEO AR FÁIL / AN IRISH LANGUAGE VERSION OF THIS FORM IS AVAILABLE



Module Overview:

In response to SDG 4.7, which requires learners acquire knowledge and skills for sustainability, this module addresses a gap identified by the National Strategy on Education for Sustainable Development in the 'preparedness of lecturers to facilitate the type of participatory learning' associated with balancing social and economic well-being with Earth's ability to replenish its natural resources.

For food-sector educators committed to embedding sustainability in their academic practice, this module aims to develop a community of practice, comprising faculty, students, industry and community that can support authentic and transformative living-lab experiences for a sustainable future of our food systems.

Deploying inquiry-based, evidence-based and action-learning approaches, this module focuses on addressing future-of-food issues within a holistic framework informed by the 4 Cs of culture, campus, curriculum and community as a means for transforming food-sector higher education.



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IMPACT
COMMUNITY-CAPACITY-CULTURE

TOTAL: OPEN EDUCATIONAL RESOURCES

Next steps..

IMPACT 'Sustainable Sector Curriculum CoCreate

Sustainability Food Co-Create Curriculum

LTTC

TU Dublin Food

Business & Enterprise

Tourism, Leisure, Hospitality, Event

(Bio)Pharma and Life Sciences

Social Enterprise

Convene Sectors

Pharma

Tourism

ICT/FinTech

Social Enterprise

Creative & Cultural

Food & Drink

MedTech



Sustainable Food Sector Curriculum CoCreate



Collaborators

School of Food Science and Environmental Health

Dr. Julie Dunne, Ass. Head of School

Dr. Graham O'Neill, Lecturer in Food Science and Bioeconomy expert

Dr. Catherine Barry-Ryan, Programme Chair BSc Food Innovation and researcher in Food waste valorisation

Mr. Fintan Moran, Programme Chair MSc Food Safety Masters and food legislation expert



School of Biological Sciences

Dr Aileen Kennedy, Lecturer in Nutrition and Dietetics

LTTC

Dr. Cormac McMahan, Expert in sustainability and education