



NUI Galway
OÉ Gaillimh

College of Science



**Best New
Postgraduate Course**

WINNER

Photo: F. Fiondella (IRI/CCAFS)

Climate Change, Agriculture and Food Security

The world's climate is rapidly changing due to global warming, and will continue to do so for the decades and centuries ahead. This poses major challenges for future agricultural systems to provide food and other bioresources for the 9 billion people that will occupy the planet by 2050. The Masters Program in Climate Change, Agriculture and Food Security (MScCCAFS) is an interdisciplinary course which trains students with the skills, tools and knowledge to develop agricultural practices, policies and social measures to address climate change challenges to agriculture and food security worldwide.

Graduates of the MScCCAFS are equipped to pursue leading roles in local, national and international efforts to promote sustainable agricultural production, climate change adaptation and global food security, in line with the United Nations' Sustainable Development Goals (SDGs).

Programme Facts

Programme level: Level 9

Duration: 1 year

Course code: MCA1

Minimum requirements: NQAI Level 8 honours degree or equivalent to a minimum standard of Second Class Honours, or equivalent in an appropriate discipline.

Fees: Fees information and funding opportunities please visit www.nuigalway.ie/student_fees. Tuition fees for international (non-EU*) students are listed on www.nuigalway.ie/student-fees/how-much/postgraduate-fees/

Closing date for applications: MScCCAFS does not set a deadline for receipt of application but early application is strongly encouraged; offers will be made on a continuous basis and advice on scholarship applications is provided. Applications are made online via the NUI Galway postgraduate application system: prospective students can access the application system at www.nuigalway.ie/courses/how-to-apply.

Contact Information for Enquiries:

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www.nuigalway.ie/ccafs



Photo: Neil Palmer (CIAT).

Why study this programme?

Climate change poses major challenges for agriculture and food security, both in terms of the impacts of climate change and the contributions of agrifood systems to climate change. Humanity faces a dual challenge. How can adaptation of future agricultural systems to climate change be achieved? How can we mitigate the effects of agriculture on climate change?

The MSc in Climate Change, Agriculture and Food Security (CCAFS) is aimed at students who want to combine scientific, engineering, technical, social and policy skills so that they are better equipped to understand and make significant contributions regarding adaptation and mitigation of climate change impacts on global agriculture and food security.

The programme combines cutting-edge taught and practical components so that graduates will have the necessary skills and capabilities to pursue a career in both climate change mitigation and adaptation for agriculture and food security. Graduates will also be equipped with the balance of scientific, technical, analytical and cross-cutting skills to significantly contribute to efforts to promote sustainable agricultural production and global food security.

Programme outline (90 ECTS credits)

*Program subject to change

Module	Credits (ECTS)
Semester 1	
Climate Change, Agriculture & Global Food Security: an Introduction	5
Policy & Scenarios for Climate Change Mitigation	5
AgriBiological Responses to Climate Change	5
Climate Change, Nutrition and Global Health	5
Gender & Climate Justice	5
Climate Change Adaptation & Risk Management	5
Semester 2	
Low-Emissions & Climate-Smart Agriculture & AgriFood Systems	5
Climate Change, Natural Resources & Livelihoods	5
Sustainable Bio-Based & Circular Economy	5
Science Communication	5
CCAFS Perspectives	5
Research Skills and Techniques	5
Semester 3	
CCAFS Masters Research Thesis	30

The Masters Program in Climate Change, Agriculture and Food Security (MSCCAFAFS) is located within the Plant & AgriBiosciences Research Centre (PABC) at the NUI Galway Ryan Institute.

The course is taught as a partnership with the international Research Program on Climate Change, Agriculture and Food Security (CCAFAFS) which is led by the CGIAR Institutes and Future Earth, and over 700 other partners worldwide (www.ccafs.cgiar.org). The MSCCAFAFS modules are taught by world-leading scientists and researchers including many guest lecturers aligned with the CCAFAFS program.

Assessments include presentations, policy briefings, research centre visits, website development, small group work and written exams. A unique feature of the MSCCAFAFS is the chance to carry out your Masters Thesis within a partner organisation working in an area relevant to climate change impacts on agricultural systems and/or secure food production, in Ireland or abroad. Many MSCCAFAFS students carry out their research project abroad, including in the developing world. More information can be found at <https://www.plantagbiosciences.org/> where applicants can read project blogs from our previous students.

Employment and career opportunities

As the climate change crisis deepens, the need for skilled graduates with skills in climate change mitigation and adaptation regarding agriculture and food security is growing. MSCCAFAFS graduates have the practical skills and tools for developing agricultural and agrifood systems, policies and measures for addressing the increasing challenge of global warming on agriculture and food security worldwide. The program is designed to build form the skills, experience and topic background of the course entries, and to assist them to find jobs or further study positions.

For news on our graduates' careers, please contact the Course Coordinator.

"The good news is, we have everything we need now to respond to the challenge of global warming. We have all the technologies we need, more are being developed.... But we should not wait, we cannot wait, we must not wait." - Al Gore

"For future generations, the consequences of continuing on the same carbon-emitting path are of unimaginable severity too all of society, including business, with enormous operational, financial and reputational risk." - Mary Robinson

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