AGRICULTURE AND CLIMATE CHANGE

LEVEL: MASTER 1
PERIOD: SEMESTER 2
LANGUAGE: EN
ECTS: 3
TEACHER/COORDINATOR: HÉLÈNE DESMYTTÈRE

2019-2020

"Climate change adaptation and mitigation are among the major challenges facing agriculture" (Saj and Torquebiau, 2018).

1-Main objectives

Agriculture is simultaneously co-responsible for climate change (emission of greenhouse gases etc) and a victim of climate change (variations, sometimes extreme, of temperature and rainfall, for example! Therefore, farming systems need to reduce their impacts and adapt themselves but can also become one of the major solutions for it! Based on these elements, the main objectives of this course will be to:

› Understand climate change challenges regarding agriculture: agriculture's contribution, adaptation and mitigation.
› Discover concrete and innovative projects or tools for monitoring the impact of farming systems (crops and livestock) to adapt/improve them.

2-Skills developed

› Understand environmental and sustainable development challenges
› Use environmental analyses tools
› Critical thinking (reconsideration) and curiosity

2-General content

› Fundamentals on climate change and understanding of the relationship with agriculture
› Impacts and practices' assessments tools
› Presentation of concrete research and development projects

3- Evaluation

› Individual written exam
› Group oral presentation

4- Program

Fundamentals on Climate Change	Lecture
What link between climate change and agriculture?	Lecture
Tools for carbon footprint calculation/diagnosis	Lecture
Diagnosis at the farm scale	Lecture
Impact of climate change on crops	Visit
Livestock farming adaptation	Lecture
Carbon sequestration	Lecture
Reducing emissions in farms	Lecture
SOERE observatories	Visit