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| **Course** | **Principal of climate change** | | | |
| Type | Semester | ECTS | Code |
| (O) | III | 6 |  |
| **Purpose and objectives** | The impacts of climate change on food systems are expected to be complex, widespread, and spatially and temporally variable. This course provides an overview of the current and future impacts of anthropogenic climate change on food production. The first half of the course will focus on lessons from Earth's past and evidence of human impact as well as the future of climate change and its economic, social and ecological consequences. The course provides insight into the earth's climate and how it has changed across our planet throughout history.  The second half will focus on current and future climate scenarios and their impact on food production as well as mitigation measures used to reduce the negative impacts caused by climate change. | | | |
| **Learning Outcomes** | At the end of the program of this subject, students will be able to:  • Distinguish which factors affect climate change, how we know this and how safe we ​​are.  • The effects of human activity on the global climate in the last 200 years.  • Knowledge of future climate change and how it will affect people's quality of life.  • To have detailed knowledge about greenhouse gases such as how these gases have potential in global warming.  • Explain the causes, impacts and trends of anthropogenic climate change in relation to food production, on a global and local scale.  • Describe and evaluate examples of mitigation and adaptation measures of climate impacts on food security.  •Analyzes current agricultural, food production systems and provides data and recommendations to increase resilience to climate change and role in GHG reduction.  •Know what we can do to mitigate future global climate change or adapt to life in a different climate.  • Recognizes the efforts and objectives of the inter-community community to respond to climate change. | | | |
| **Literature** | * • David Archer, Global Warming: Understanding the Forecast, 2 nd ed. (Wiley, 2011; ISBN 978-0-470-94341-0). Be sure you get the second edition because it is significantly different from the first. * • William Nordhaus, The Climate Casino: Risk, Uncertainty, and Economics for a Warming World (Yale, 2013; ISBN 978-0-300-21264-8) • Roger A. Pielke, Jr., The Climate Fix (Basic Books, 2010; ISBN 978-0-465-02519-0) * Allen B.J., Bourke R.M. and Hide R.L. (1995). The sustainability of Papua New Guinea agricultural systems: the conceptual background. Global Environmental Change, 5(4): 297-312. * Dale B. (2020). Alliances for agroecology: from climate change to food system change. Agroecology and Sustainable Food Systems, 44: 629-652. * Diacono M., Fiore A., Farina R., Canali S., di Bene D., Testani E. and Montemurro F. (2016). Combined agri-ecological strategies for adaptation of organic horticultural systems to climate change in Mediterranean environment. Italian Journal of Agronomy, 11: 85-91.   -Search/learn more on the web about the Green Climate Fund and projects related to your country of origin.  -Search/learn more on the web about the National Appropriate Mitigation Actions (NAMAs) and related topics. | | | |