

# **Course Outline**

**PART A - Introduction to the environmental perspective of climate change and its impacts** 

## Scientific basis of climate change

UMI speaker: Matilde Rusticucci

Director of the Department of Atmospheric and Oceanic Sciences (DCAO/FCEN-UBA) Senior Research Scientist at the Department of Atmospheric and Oceanic Sciences (DCAO/FCEN-UBA) and the French-Argentine Institute for the Study of Climate and its Impacts (UMI-IFAECI) / CNRS-CONICET-UBA

During the talk, the following topics will be discussed: observed climate change in the various components of the climate system and its attribution to human activities, projected climate changes and the results of the latest report of the Intergovernmental Panel on Climate Change.

## Attribution of climate change

UMI speaker: Alexis Hannart French Deputy Director of the French-Argentine Institute for the Study of Climate and its Impacts (UMI-IFAECI)

Since the planet Earth exists, the weather has had natural variations, long before the appearance of man. How can we then say with such certainty that the observed warming since the industrial revolution is not natural? In this talk we will present the different lines of evidence developed by climate scientists that allow supporting these claims and justifying the introduction of the term 'Anthropocene'.

## Climate change and cities: challenges and experiences

UMI speaker: Inés Camilloni Senior Research Scientist at the Center for Atmosphere and Ocean Sciences (CIMA/CONICET-UBA) and at the French-Argentine Institute for the Study of Climate and its Impacts (UMI-IFAECI) / CNRS-CONICET-UBA Professor at the Department of Atmospheric and Oceanic Sciences (DCAO/FCEN-UBA)

The process of urbanization is closely linked with climate change that impacts on the cities in many ways. On the one hand, urban areas emit about 70% of fossil carbon dioxide and thus



contribute significantly to global warming. On the other hand, the inhabitants of the cities and their properties are affected by the impacts of climate change with effects on human health, infrastructures and services, economic activities and social systems. This presentation analyzes to what extent the magnitude of these effects depends on the level of preparedness of the city and its ability to face and overcome both predicted and unexpected situations.

# The IPCC plans for the 6<sup>th</sup> report and the agenda post-COP21

UMI speaker: Carolina Vera Senior Research Scientist at the Center for Atmosphere and Ocean Sciences (CIMA/CONICET-UBA) and at the French-Argentine Institute for the Study of Climate and its Impacts(UMI-IFAECI) / CNRS-CONICET-UBA Professor at the Department of Atmospheric and Oceanic Sciences (DCAO/FCEN-UBA) Vice-Chair of the Intergovernmental Panel on Climate Change (IPCC) Working Group 1

The talk will present an overview of the Intergovernmental Panel on Climate Change (IPCC) including its activities and its elaboration strategy of the assessment reports. The IPCC is currently in its sixth assessment cycle. During this cycle, the panel will produce three special reports, a methodological report on national inventories of greenhouse gases and Sixth Assessment Report (AR6). The talk includes a description of these activities and their relationship with international negotiations in the United Nations Framework Convention on Climate Change (UNFCCC).

## PART B - Climate Geopolitics: International Relations in a Warming World

Invited speaker: François Gemenne Director of the program Policies of the Earth at Communauté d'Universités et Établissements, Université Sorbonne Paris Cité (COMUE USPC), France

Climate change has now grown from a scientific concern to one of the most pressing political issues of our time. Yet it continues to be often regarded as an environmental issue, which could be solved through technical measures and environmental policies. This course challenges this assumption and shows how climate change poses a significant challenge to international relations, as well as to the very concepts they rely on: territory, sovereignty, justice... Though the Paris Agreement, negotiated at COP21 in 2015, constitutes the first universal agreement on climate change, the views and policies on climate change remain



anchored in national contexts. As we are now entering the Anthropocene, the 'Age of Humans', what will international relations look like in a world transformed by climate change?

The series of talks will cover, particularly, the following issues:

# **International Relations and the Environment**

- The importance of the Anthropocene for international relations
- How classical theories of IR have addressed environmental issues
- Politics of the Earth, a reinvention of geopolitics

## Climate Change as a Political Issue

- Geography of greenhouse gas emissions
- Geography of climate impacts
- Migration, displacement and security

## **Environmental diplomacy**

- A brief history of the climate negotiations
- The climate change regime
- COP21 and beyond

#### **Territory, Sovereignty, Borders**

- Sea-level rise, land grabbing and the meaning of territory
- Environmental sovereignty and carbon democracy
- Climate change as a challenge to democracy

#### Readings

- Burke, A., Fishel, S., Dalby, S., & Levine, D. J. (2016). Planet Politics : A Manifesto from the End of IR. *Millennium: Journal of International Studies*, 44(3), 499–523. doi:10.1126/sciadv.1400253
- Dalby, S. (2014) Environmental Geopolitics in the Twenty First Century, *Alternatives: Global, Local, Political* 39 (1): 1–14
- Dryzek, J. (2015) Institutions for the Anthropocene: Governance in a Changing Earth System. British Journal of Political Science, November: 1–20. doi: 10.1017/S0007123414000453

#### Supplementary readings:

• Biermann, F. (2014) The Anthropocene: A Governance Perspective. *The Anthropocene Review* 1 (1): 57–61. doi: 10.1177/2053019613516289



- Hamilton C., Bonneuil C. and **Gemenne F.** (Eds.) (2015) *The Anthropocene and the Global Environmental Crisis: Rethinking modernity in a new epoch*. London: Routledge (Introduction)
- Gemenne F. (2015) *Géopolitique du Climat.* Paris : Armand Colin. 2<sup>nd</sup> edition of *Géopolitique du Changement climatique* (2009).
- Environnement et Relations Internationales (2015), *CERISCOPE*, online http://ceriscope.sciences-po.fr/environnement

# PART C - Round table: Sustainable development and Anthropocene

#### Theme:

Land use changes in Argentina, agriculturalization and their relation with climate change and sustainable development

## **Special Guests:**

Valeria Hernández Representative of the French Institute of Research for Development (IRD) for Argentina, Uruguay and Chile Professor of the National University of San Martin (UNSAM)

José Paruelo

Professor of the Faculty of Agronomy of the University of Buenos Aires (FAUBA) Director of the Degree in Environmental Sciences of the FAUBA Senior Research Scientits at the Instituto de Investigaciones Fisiológicas y Ecológicas Vinculadas a la Agricultura (IFEBA/CONICET-UBA)