

Máster online 100%

Master´s Degree in Continuing Education in Disaster Risk Management and Climate Governance + 60 ECTS Credits

Structuralia

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Master´s Degree in Continuing Education in Disaster Risk Management and Climate Governance + 60 ECTS Credits

Modality
Online

Languages
Inglés

Duration
1500 hours (60 ECTS)

No Limit
AI Assistant

Educational Institutions

Structuralia Engineering eLearning

UCAM Universidad Católica de Murcia

Summary

This Master's degree has been designed to provide professionals from different disciplines with the necessary knowledge and skills for applied research, and for the management of means and tools that can be used in the fields of Disaster Risk Management and climate governance. According to the Intergovernmental Panel on Climate Change (IPCC), climate governance is related to mechanisms and voluntary measures destined to run social systems towards prevention, mitigation or adaptation to the risks caused by climate change (Jagers and Steripple, IPCC glossary).

Agenda

MODULE 1. DISASTER RISK MANAGEMENT AND CLIMATE CHANGE. CONCEPTS AND CONTEXT

1. DIDACTIC UNIT 1. RISK MANAGEMENT AND CLIMATE CHANGE MANAGEMENT

1. The International Context of Disaster Risk Management (The Sendai Framework for Disaster Risk Reduction)
2. International Context of Climate Change. The IPCC: Climate Change Generalities and Scenarios.
3. Concepts related to disaster risk management and climate change and articulation levels
4. Lines of action for risk management and structural and non-structural intervention for risk reduction
5. Risk management by scenarios

2. DIDACTIC UNIT 2. RISK OF DISASTER AND CLIMATE CHANGE

1. General basis of climate change
2. The IPCC: Climate change generalities and scenarios
3. Relation development - risk - disasters (risk construction) and the effects and impacts of climate variability and climate change
4. Extensive and Intensive Risks, their impact on human development
5. The inequalities and conditions of vulnerability and the impacts and effects of climate variability and climate change

3. DIDACTIC UNIT 3. SYSTEMIC APPROACH FOR THE MANAGEMENT OF DISASTER RISK AND CLIMATE CHANGE MANAGEMENT

1. Areas for risk management and climate change (to institutional to the sectorial, private, territorial, community sector)
2. Participants and Actions for the management of disaster risk and climate change Risk Management
3. Planning instruments for risk management and climate change
4. Institutionality, Entities and Organizations for the implementation and monitoring of actions
5. Adaptation and mitigation strategies for climate change

4. DIDACTIC UNIT 4. FOCUS OF PROCESSES AND STRATEGIES FOR AN INTEGRAL MANAGEMENT OF THE RISK OF DISASTERS AND ADAPTATION TO CLIMATE CHANGE

1. What does the process-based approach imply (change of the emergency and disasters care approach) in the context of climate variability and change
2. Strategic Processes: Planning, Organization and monitoring
3. Mission processes: Knowledge of risk, reduction of risk and management of disasters
4. Support Processes: strengthening of human resource knowledge, public communication and information
5. Strategies for a comprehensive management of the risk of disasters in the context of climate variability and climate change

MODULE 2. PROSPECTIVE AND CORRECTIVE RISK MANAGEMENT

1. DIDACTIC UNIT 1. CONTEXT AND CONCEPTUALIZATION OF RISK AWARENESS TOWARDS ITS PROSPECTIVE AND CORRECTIVE MANAGEMENT

1. Disaster Risk Management
2. Disaster Risk Management and its internal context
3. Disaster Risk Management and its external context
4. Disaster Risk Management and its process context
5. Disaster Risk criteria

2. DIDACTIC UNIT 2. PROSPECTIVE AND CORRECTIVE MANAGEMENT. RISK ASSESSMENT

1. Disaster Risk Identification
2. Disaster Risk Analysis
3. Disaster Risk Assessment
4. Disaster Risk Monitoring
5. Illustrative Examples of Disaster Risk Assessment

3. DIDACTIC UNIT 3. REDUCING RISKS THROUGH PROSPECTIVE INTERVENTIONS

1. Context and conceptualization of Disaster Risk Reduction
2. Current and Future Risk Processes
3. Prospective intervention
4. Risk Reduction Measures - Prospective Intervention (Future Risk)
5. Disaster Risk Reduction and Resilience

4. DIDACTIC UNIT 4. REDUCING RISKS THROUGH CORRECTIVE INTERVENTIONS

1. Corrective intervention (mitigation of current risk)
2. Reducing vulnerability and improving resilience and capability through structural and non-structural measures
3. financial protection
4. Social actors against Disaster Risk reduction
5. Illustrative examples of corrective interventions

MODULE 3. CLIMATE VARIABILITY AND CLIMATE CHANGE

1. DIDACTIC UNIT 1. THE CLIMATE SYSTEM

1. Introduction to the Climate System
2. Structure and Components of the Climate System
3. The Atmosphere and Life on Earth
4. The Importance of the Hydrological Cycle in Climate Regulation
5. Natural Drivers of Climate Change

2. DIDACTIC UNIT 2. WEATHER, CLIMATE AND CLIMATE CHANGE

1. Energy Balance in the Climate System
2. Changes in the Climate System
3. The Oceans and Atmosphere: Essential Interactions for weather
4. Climate Variability
5. Weather, Climate and Climate Change in Strategic Systems

3. DIDACTIC UNIT 3. CLIMATE CHANGE

1. Anthropogenic Drivers of Climate Change
2. History of Climate Change
3. Observed Trends of Climate Change: First-Tier Effects
4. Global Scenarios of Climate Change
5. The Importance of the 1.5ºC

4. DIDACTIC UNIT 4. VULNERABILITY ANALYSIS AND CLIMATE CHANGE RISK (CCR)

1. Expected Trends of Climate Change: Second-Tier Effects
2. Climate Change Vulnerability
3. Vulnerability Dimensions and Climate Change Risk
4. Disaster Risk (DR) and Climate Change Risk (CCR)
5. Examples

MODULE 4. ICT AND GIS APPLIED IN THE MANAGEMENT OF DISASTER RISK AND CLIMATE CHANGE

1. DIDACTIC UNIT 1. INTRODUCTION TO IT, GIS, GPS, DB, AND TELECOM

1. Introduction to Information Technology and Tech Advances
2. Databases / DB, data storage, and database management systems.
3. GIS, GPS and Coordinate Systems
4. Using Google Earth Pro to Locate Coordinates and Maps
5. GPS Essentials App and how to collect Data from GPS with Android smartphones.

2. DIDACTIC UNIT 2. BASIC TOOLS TO COLLECT GEOLOCALIZED DATA IN A DATABASE

1. Creating a Data Collection Form: Recommendations to Create Data Storage Structures
2. Kobotoolbox
3. Typeform
4. GISCLOUD
5. Fullcrum App

3. DIDACTIC UNIT 3. QGIS DESKTOP TOOL AND THE CREATION OF WEB GEOSERVICES WITH GEOSERVER.

1. QGIS Basic Tools (I)
2. QGIS Basic Tools (II)
3. What are WMS and WFS Geoservices?
4. Creating WMS or WFS with Geoserver and their Applications (I)
5. Creating WMS or WFS with Geoserver and their Applications (II)

4. DIDACTIC UNIT 4. CREATING MAPS. LAYERS, CARTOGRAPHY, CADASTRE, CENSUS AND GIS ANALYSIS TO OBTAIN HAZARD, VULNERABILITY AND RISK MAPS

1. Relation between Risk Management, Cadastre, Census and Cartography
2. Creating Urban Land Use and Critical Infrastructure Maps.
3. GIS Analysis with QGIS and ArcGIS Desktop Demonstration
4. Susceptibility, Hazard, Vulnerability and Risk Maps: Differences, Map Types and Mapping Methodologies

5. Climate Models and Climate Trends

MODULE 5. DISASTER RISK FINANCIAL MANAGEMENT AND CLIMATE FINANCE

1. DIDACTIC UNIT 1. CONTEXT AND CONCEPTUALIZATION OF DISASTER RISK FINANCIAL PROTECTION AND CLIMATE FINANCE

1. Conceptualization of Disaster Risk Financial Protection
2. Conceptualization of Climate Finance
3. Disaster Risk Financial Protection and Climate Finance as Components of Fiscal Management
4. Legal Framework of Disaster Risk Financial Protection and Climate Finance
5. Benefits from Grouping Risks

2. DIDACTIC UNIT 2. DISASTER RISK FINANCIAL PROTECTION IN PUBLIC INVESTMENT

1. Disaster Risk Financial Protection Strategies
2. Disaster Risk Retention Tools
3. Disaster Risk Financing Tools
4. Disaster Risk Transfer Tools
5. Disaster Risks Analysis and Climate Change Criteria in Public Investment

3. DIDACTIC UNIT 3. DISASTER RISK FINANCIAL PROTECTION IN PRIVATE INVESTMENT

1. Risk Management
2. Insurance
3. Insurance Types
4. Disaster Contingency Plans against Disaster Occurrence
5. Finance perspective of Environmental and Social Risks

4. DIDACTIC UNIT 4. CLIMATE FINANCE

1. Possible Impacts due to Climate Events
2. Inclusion of Climate Event Considerations in the Planning Process
3. Financial Tools to Respond to Climate Events
4. Tax Management to Promote Climate Change Adaptation
5. Green Funds/Green Bonds

MODULE 6. DISASTER MANAGEMENT AND RECOVERY

1. DIDACTIC UNIT 1. CONTEXT AND CONCEPTS OF DEVELOPMENT-ORIENTED DISASTER MANAGEMENT AND RECOVERY

1. Concepts of Emergencies and Disasters
2. Concepts of Development-Oriented Recovery
3. Context of Development-Oriented Disaster Response and Recovery
4. Effects and Impacts of Climate Variability and Climate Change on Disaster Response and Recovery
5. Cross-Cutting issues associated Development-Oriented Disaster Management

2. DIDACTIC UNIT 2. DISASTER MANAGEMENT AND RECOVERY PLANNING

1. Disaster Management and Recovery Processes
2. Preparedness and Alerts
3. Emergency Response Processes
4. Post-Disaster Recovery Planning Process
5. Territorial Levels and Work Areas

3. DIDACTIC UNIT 3. INFORMATION MANAGEMENT, AND RESPONSE AND RECOVERY ASSESSMENTS

1. Response Information
2. Instruments and Needs Assessments
3. Information Management in Development-Oriented Recovery
4. Damages, Loss and Recovery Needs Assessment
5. Recovery: Assessment from the Government's Perspective, the Private Sector and Communities

4. DIDACTIC UNIT 4. DISASTER MANAGEMENT AND DEVELOPMENT-ORIENTED RECOVERY STRATEGIES AND INSTRUMENTS

1. Disaster Management and the Humanitarian Agenda Strategies
2. Emergency Response and Disaster Management Instruments
3. Post-Disaster Development-Oriented Recovery Strategies
4. Post-Disaster Development-Oriented Recovery Planning and Implementation Instruments
5. Disaster Response and Recovery Actions. Technical and Resource Implementation Needs

MODULE 7. CLIMATE GOVERNANCE

1. DIDACTIC UNIT 1. WHY IS CLIMATE GOVERNANCE NECESSARY?

1. What Is the Governance?
2. Differences between Government, Governability and Governance
3. Social, Environmental and Climate Governance
4. Climate Governance Levels: Global, Regional and Local
5. Governance Gaps

2. DIDACTIC UNIT 2. GOVERNANCE: COUNTRIES, CITIES AND COMMUNITIES

1. The Need for Effective Climate Change Response in Countries with Diverse Contexts
2. Climate Action Barriers
3. Governance in Countries and Cities
4. Community-based Governance
5. Examples

3. DIDACTIC UNIT 3. STRATEGIC SECTOR GOVERNANCE

1. Agricultural Governance
2. Agricultural Governance Examples
3. Water Governance
4. Water Governance Examples
5. Coastal Area Climate Governance

4. DIDACTIC UNIT 4. CAPACITIES AND CHALLENGES OF CLIMATE GOVERNANCE

1. Required Country Transformations: Opportunities and Challenges

2. Other Actors and their Perspectives
3. Participatory Governance and Consultation Processes
4. Governance Systems and Sustainable Development
5. Climate Governance and Disaster Risk Governance

MODULE 8. GLOBAL WARMING MITIGATION TOOLS

1. DIDACTIC UNIT 1. THE CLOSE LINK BETWEEN GREENHOUSE GAS (GHG) AND GLOBAL WARMING (GW)

1. Atmospheric Pollution
2. Global warming and Climate Change
3. Global Greenhouse Gas Emissions
4. What is Global Warming Mitigation?
5. Policy Approaches to Mitigation

2. DIDACTIC UNIT 2. INTERNATIONAL MITIGATION MECHANISMS

1. Nationally Determined Contributions
2. Carbon Emission Trade or Bond law
3. Clean Development Mechanisms
4. Joint Action and Adaptation Fund
5. Non-market-based Compensation Mechanisms. Voluntary market

3. DIDACTIC UNIT 3. SECTORAL MITIGATION STRATEGIES

1. Energy Sector
2. Industry Sector
3. Transportation Sector
4. Housing and Construction Sectors
5. Agriculture, Forestry and other Land Use Sectors

4. DIDACTIC UNIT 4. MITIGATION BENEFIT AND OPPORTUNITIES

1. Mitigation in Asia
2. Mitigation Measures in the American Continent
3. Mitigation Measures in Africa
4. Mitigation Measures in Europe
5. Mitigation Measures in Oceania

MODULE 9. CLIMATE CHANGE ADAPTATION TOOLS

1. DIDACTIC UNIT 1. CLIMATE CHANGE RISKS IN TERMS OF ANALYSIS AND VULNERABILITY

1. Climate change risks to water resources
2. Climate change risks to biodiversity and ecosystem services
3. Climate change risks to food safety and manufacturing systems
4. Climate change risks to human settlements and infrastructures
5. Climate change risks to human health

2. DIDACTIC UNIT 2. ADAPTATION TO CLIMATE CHANGE

1. What is climate change adaptation? Resilience

2. Climate change approaches
3. Climate adaptation options
4. Implementing adaptation
5. The thin line between development and adaptation

3. DIDACTIC UNIT 3. INTERNATIONAL EXPERIENCE IN CLIMATE CHANGE ADAPTATION

1. UNFCCC: Commitments and progress in global climate change adaptation
2. Warsaw international mechanisms for loss and damage
3. International strategies: Euroclima +
4. National adaptation programs of action (NAPA) and adaptation plans (NAP)
5. Cities and climate change adaptation

4. DIDACTIC UNIT 4. SECTORAL ADAPTIVE STRATEGIES

1. Adaptive strategies in comprehensive water resource management
2. Adaptive strategies in biodiversity and ecosystem services
3. Adaptive strategies in human settlements and infrastructure
4. Adaptive strategies in productive systems and food security
5. From climate crisis to climate action: where are we going now?

MODULE 10. MFP. MASTER'S DEGREE IN DISASTER RISK MANAGEMENT AND CLIMATE GOVERNANCE

Qualification

Master´s Degree in Continuing Education in Disaster Risk Management and Climate Governance with 60 ECTS Credits awarded by the Catholic University of Murcia in collaboration with Structuralia

Objectives

- This program's objective is to equip the students with the knowledge and skills to:
- Understand Disaster Risk Management as a continuous process built upon social, cultural, economic and institutional circumstances, and that operates in contexts of constant hazard, climate variability and climate change.
- Identify and analyze the actions and measures required for prospective and corrective risk management.
- Understand disaster risk finance management, climate finances and post-disaster recovery processes after a disaster.
- Understand the role and operations of technological and information tools relevant to risk management, climate variability and climate change.
- Understand the climate change context and its relationship with Disaster Risk Management.
- Analyze the global climate governance challenges, the key players and the required mechanisms and measures to address such challenges.
- Understand the different adaptive climate governance tools and measures applied by territorial, sectorial, institutional, public, private and communal agencies.
- Encourage the creation of knowledge to promote research and the development of risk management and climate governance approaches

What does it prepare you for?

Therefore, acquiring knowledge and skills in this subject is highly relevant in a world more and more exposed to climate-related phenomena

Who is it addressed to?

The main groups of interest include engineers, architects, experts on Earth science, economic science, social science, environmental science, ecologists, sociologists, biologists, hydrologists, educators, geographers and other professionals interested in developing their competences in risk management and climate governance.

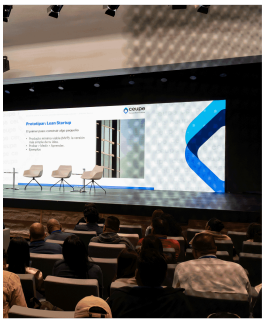
Official Character

This training is not included within the scope of official regulated training (Early Childhood Education, Primary Education, Secondary Education, Official Vocational Training FP, Baccalaureate, University Degree, Master University Officer and Doctorate). It is therefore a complementary and/or specialization training, aimed at the acquisition of certain competencies, skills or aptitudes of a professional nature, which can be assessed as merit in job boards and/or competitive examinations, always within the section of Complementary Training and/or Continuous Training. It is always essential to review the specific grading requirements of the specific public job boards to which we wish to apply.

Professional Outings

- At the end of the program, the students of this program will have the necessary knowledge and skills to: • Conduct research with Disaster Risk Management and climate governance tools and assets. • Prepare, implement, and evaluate Disaster Risk Management and climate governance technical studies, diagnosis, projects, programs and measures. • Formulate disaster risk mitigation and adaptation strategies • Provide consultancy consulting services • Become a specialized educator or public official.







Live Madrid

Live the International Week

As an additional complement to your training, you can be part of the SIM: Week International in Madrid. A unique meeting that brings together students from all over the world. For seven days you can live an academic and cultural experience in the heart of Europe, culminating with the graduation ceremony in Madrid.

- Conferences and workshops with international experts
- Visits to companies and reference organizations
- Networking with students from different countries
- Cultural activities and discovery of Madrid
- graduation ceremony

Structural

Structuralia is a leading educational institution in postgraduate and highly specialized online training, focused on the fields of engineering, architecture, construction, energy, technology and digital transformation.

Founded in 2001 with a strong industrial DNA, the result of collaboration between large companies in the sector and the Universitat Politècnica de Catalunya (UPC), for more than 25 years we have accompanied technical professionals in their academic and professional development through practical, flexible training aligned with the reality of the labor market.

Our training proposal connects advanced technical knowledge, real employability and international projection, acting as key support in the professional evolution of those seeking to specialize, grow professionally and generate impact in their sector, with a firm commitment to the democratization of access to technical excellence.



+350.000

Students have gone through our virtual classrooms



+20 years

Experience in the training sector



5 stars

QS ranking in online education

EDUCA EDTECH
Group

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When you enroll in a course or master's degree, you will get a free subscription to MyLXP while your training lasts. You will have access to more than 400 key courses (soft skills, languages, digital skills, etc.) and other surprises. Sign up and see how MyLXP improves your learning.

EDUCA LXP Methodology

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EDUCA LXP is more than a methodology, it is a completely educational experience personalized thanks to all the possibilities offered by artificial intelligence. Now the content adapts to you, your needs and preferences, while offering you access to updated and practical content that really makes a difference in the labor market.

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Discover PHIA, your learning assistant that will help you every step of the way.

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Human empathy and academic guidance from a specialized teaching team.

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Didactic approach oriented to work by competencies, which favors practical and meaningful learning.

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When you enroll in a course or master's degree, you will get a free subscription to MyLXP while your training lasts

You will have access to more than 400 key courses (soft skills, languages, competencies digital, etc.) and other surprises. Sign up and see how MyLXP improves your learning.

Meet PHIA, your personalized learning assistant

Use all the possibilities of artificial intelligence to get the most out of it match to your training

EDUCA EDTECH Group leads the digital revolution in education, promoting the continuous learning and technological transformation. The group is made up of recognized training institutions and its mission is to democratize access to education, promote the transfer of knowledge, technological development and research.

With the experience accumulated over more than 20 years, we have perfected our learning platform EDUCA LXP (Learning Experience Platform), the basis of our educational methodology, which provides students with online training practical and meaningful.



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Funding and scholarships

Finance your course or master's degree and enjoy the available scholarships. Contact our expert team to know which one best suits your profile.

25%
Alumni Scholarship

15%
Scholarship recommended

20%
Functional Diversity Scholarship

20%
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