

# 浙江大学研究生课程教学大纲

<b>课程编号</b>	3423133	<b>开课院系</b>	海洋学院		
<b>中文课程名称</b>	海洋环境与全球气候变化	<b>授课语言</b>	全外文		
<b>英文课程名称</b>	Marine Environment and Global Climate Change				
<b>课程性质</b>	专业选修课	<b>课程类别</b>	硕士生课	<b>课程体系</b>	通用课程
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<b>教学学时</b>	24	<b>实验学时</b>	0	<b>实践学时</b>	0
<b>其他学时</b>	0	<b>总学时</b>	24	<b>自学学时</b>	0
<b>学分数</b>	1.5	<b>考核方式</b>	调研报告	<b>开课学期</b>	夏
<b>课程内容中文简介</b>	<p>全球气候变化 (Global Climate Change) 是指在全球范围内, 气候平均状态统计学意义上持续较长一段时间的气候变动, 以及由此带来的一系列自然、经济、社会变化。本课程重点关注近百年来的全球气候变化和海洋环境, 主要讲授全球气候变化背景下海岸带与海洋在自然环境、社会经济以及政策三方面的响应。首先是分析全球气候变化的原因、机制, 详细阐述气候变化下海岸带与海洋大气、水文、能量、碳循环、海岸带典型生态系统的变化, 介绍现有的气候预测模型与理论基础; 其次是介绍气候变化下海岸带区域经济发展情况、存在的威胁以及应对措施; 最后讨论国际碳排放交易市场、各国际组织、国家出台的气候变化 (海平面上升、气候变暖) 应对政策、我国施碳排放交易政策与立场、以及蓝碳计划的发展与预测。</p>				
<b>课程内容英文简介</b>	<p>Global Climate Change is a change in the statistical distribution of weather patterns when that change lasts for an extended period of time, and its impacts on nature, economy and communities. Climate change may refer to a change in average weather conditions, or in the time variation of weather around longer-term average conditions. This course focuses on global climate changes in marine and coastal environment within recent 100 years. It mainly introduces the changes of coastal environment, economic development and polices responses under the climate changes. Firstly, the causes and mechanisms of climate change will be explained, as well as the changes of atmosphere, hydrology, energy and coastal ecosystems will be analyzed. Secondly, the threats imposed on coastal economic development and the economics of greenhouse gas control will be introduced. Finally, international and national climate police responses will be presented and discussed, including the carbon trading and tax system, policies on sea level rises as well as the blue carbon policies.</p>				
<b>预备知识要求</b>	熟悉基本知识、培养思维和表达能力及合作精神、提高中外文自然科学文献的阅读能力, 形成对海洋与气候变化领域研究的兴趣。				
<b>教学目标</b>	<p>通过本课程学习, 使参与课程的学生能够较系统的了解气候变化的基本概念、原理与机制。深入认识全球气候变化下, 海岸带与海洋环境在自然环境、社会经济与政策三方面的变化与响应。通过研究案例的学习, 形成科学的逻辑思维与严谨的科学态度, 并了解全球气候变化与海洋环境相关研究的最前沿发展。</p> <p>授课内容及目标: 通过本门课程的学习, 使海洋学院的硕士研究生能系统地了解气候变化的基础理论、研究现状及发展趋势、认识气候变化与海洋环境之间的相互作用; 并对全球气候变化研究领域有系统的了解。</p>				
	1) IPCC, 2013: Climate Change 2013: The Physical Science Basis. Contribution of Working Group I to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change [Stocker, T.F., D. Qin, G.-K. Plattner, M. Tignor, S.K. Allen, J. Boschung, A. Nauels, Y. Xia, V. Bex and P.M. Midgley (eds.)]. Cambridge University Press, Cambridge, United				



