



Interdisciplinary MSc and Doctoral Education in Climate System Science at the University of Hamburg

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Modern research in climate system sciences is based on a number of disciplines such as meteorology, geophysics, oceanography, geosciences and also economics and social sciences. Knowledge across these disciplines is required to address key climate issues. Climate experts need profound knowledge that can only be achieved in interdisciplinary MSc and PhD programs.

In Europe, graduate students who completed a BSc degree are typically proceeding with MSc programs to increase their knowledge and qualification, usually followed by a doctoral program. Many doctoral programs include courses supporting disciplinary methodological and scientific background in particular. Those courses originate either from advanced MSc programs or specific trainings. Typically, interdisciplinary exchange is difficult to achieve at any stage of disciplinary graduate programs.

Recent developments in climate research, including those in adaptation and mitigation research and subsequent professions, showed the requirements to educate climate experts in interdisciplinary MSc programs. Because of this the University of Hamburg offers an interdisciplinary 2-yr MSc program in Integrated System Sciences with 120 ECTS (30 compulsory, 90 eligible) and in English language. Each doctoral student is guided by an advisory panel (AP), which meets at least bi-annually. The AP consists of a Principal Advisor, a Co-Advisor and a Chair of the panel who come from neighboring disciplines. The structured doctoral program (12 CP) includes interdisciplinary compulsory courses and also tailor-made eligible expert courses. Summer schools and soft skill courses add to both MSc and doctoral programs. Advantages and limitations of this concept will be discussed.