

<b>Module Name</b>	<b>New aspects of meteorology and oceanography: Carbon cycling in a changing climate</b>	
<b>Module Number</b>	MNF-bioc-271	
<b>Person in Charge</b>	Prof. Dr. Birgit Schneider Phone: +49-(0)431-880-3254, Email: bschneider@gpi.uni-kiel.de Dr. Susan Tegtmeier Phone: +49-(0)-431-600-4160, Email: stegtmeier@geomar.de	
<b>Semester / Duration</b>	2. semester / compact course	Status
<b>Regular Cycle</b>	Block course during summer semester	Optional
<b>Study Programme</b>	<b>Master of Climate Physics, Master of Science in Biological Oceanography, Master of Science in Marine Geoscience</b>	
<b>Classes</b>	<b>Class Title (Teaching Form) Lecturers</b>	<b>Contact Time / Group Size</b>
	Carbon cycling in a changing climate (Lecture/Seminar/Exercise)  Prof. Dr. Birgit Schneider Dr. Susan Tegtmeier Dr. Joachim Segschneider	Compact course: 5 days, 7 hrs per day/ 20 students
<b>Credit Points / Workload</b>	5 ECTS / 150 hours	
<b>Prerequisites</b>	A bachelor's degree in a biological, geological, physical or chemical discipline.	
<b>Completion Module</b>	None.	
<b>Following Module</b>	None	
<b>Educational Objectives</b>	This interdisciplinary seminar should give an introduction into the role of carbon (including the greenhouse gases CO <sub>2</sub> and methane) in the climate-system, with a focus on the coupling of atmosphere, ocean and solid earth. The seminar will teach the basics of the earth's climate history, with an emphasis on the cycling of carbon through atmosphere, ocean, sediments and biosphere. Climate change issues will be discussed interactively with the students along the current IPCC assessment.	
<b>Content of Teaching</b>	The seminar is divided into interactive lectures connected to a student part with presentations and exercises. The student part includes studying and presenting recent articles on modern aspects of carbon in the climate-system. Within teams the students should learn to analyze and discuss scientific papers and IPCC chapters in more detail. Finally, a synthesis paper will be developed by all participants together.	
<b>Examination</b>	Oral presentation of literature (graded).	
<b>Literature</b>	John Houghton, Global Warming: The Complete Briefing, Cambridge University Press Additional literature and lecture notes will be distributed.	
<b>Additional Information</b>	Formal subscription to this course via OLAT and participation in a planning meeting is mandatory; please check UnivIS for more information	