Master of Sciences “Physical Climate: Meteorology and Physical Oceanography”

Sem.	Compulsory Modules (C)		Σ cp	Compulsory Elective Modules (CE)			Σ cp	Specialization Modules (SP)	Σ cp	Σ cp
	General	Climate		Oceanography	Meteorology	Climate		Examples		
1	**Advanced Geophysical Fluid Dynamics** (climAGFD) V2 + PÜ1 / CP 5**	**Oceanography-Meteorology Seminar ** (climOMSEM) S2 / CP 5**	10	**Advanced Physical Oceanography: Thermohaline Circulation** (climAPO) V2 +PÜ1 / CP 5**	**Advanced Meteorology: Stratospheric Physics & Dynamics ** (climAME) V2+ PÜ1 / CP 5**	**Advanced Physical Climate: Climate Feedbacks** (climAPC) V2+ PÜ1 / CP 5**	5	**Meteorological Lunch Seminar (climMESEM) S2 / CP 5 - offered every semester** **Ocean Circulation and Climate Dynamics Colloquium (climCOL) S1/ CP 2 - offered every semester** **Environmental Science Summer School (climSCHOOL) CP 5** **Ocean and Climate Physics Research Internship (climINTERN) CP 5**	15	30
2	**Data Analysis and Statistics * (climDAT) V2 + PÜ1 / CP 5**	**Climate Seminar * (climCSEM) S2 / CP 5**	10	**Advanced Physical Oceanography: Wind-driven Circulation * (climAPO) V2 + PÜ1 / CP 5**	**Advanced Meteorology: Tropospheric Physics & Dynamics*** (climAME) V2+ PÜ1 / CP 5**	**Advanced Physical Climate: Regional Climate Variability*** (climAPC) V2, PÜ1 / CP5**	5	**Ocean Sustainability (climSUSTAIN) CP 5 V2+ Colloq. 2 /CP 6** **Modern Aspects in Meteorology I: Climate Modeling (climMEMODEL) V2 + S1 / CP 5** **Modern Aspects in Meteorology II: Data Assimilation (climMEASSIM) V1/S1/PÜ 1/ CP 5**	15	30
3	**Numerical Methods and Models** (climNUM) V2 + PÜ1 / CP 5** **Geostrophic Dynamics ** (climGD) V2 +PÜ1 / CP 5**	**Oceanography-Meteorology Seminar ** (climOMSEM) S2 / CP 5**	10	**Advanced Physical Oceanography: Thermohaline Circulation** (climAPO) V2 + PÜ1 / CP 5**	**Advanced Meteorology: Stratospheric Physics & Dynamics ** (climAME) V2+ PÜ1 / CP 5**	**Advanced Physical Climate: Climate Feedbacks** (climAPC) V2+ PÜ1 / CP 5**	5	**Modern Aspects in Meteorology III: Carbon Cycling in a Changing Climate (climMECARBON) V1/S1/PÜ1 / CP 5** **Modern Aspects in Meteorology IV: Cloud Physics (climMECLOUD) V2+S1 / CP 5** **Physical Oceanography Lunch Seminar (climPOSEM) S2 / CP 5 - offered every semester** **Modern Aspects in Oceanography I: Tropical Ocean Dynamics (climPOTROPIC) V2 + S1 / CP5** **Modern Aspects in Oceanography III: The El Niño-Southern Oscillation (climPOENSO) V2 +S1 / CP5**	15	30
4	**Master Thesis including a presentation of the results (climTHES) / CP25**		25 55		**Advanced Meteorology: Tropospheric Physics & Dynamics*** (climAME) V2+ PÜ1 / CP 5**	**Advanced Physical Climate: Regional Climate Variability*** (climAPC) V2, PÜ1 / CP5**	5 20	**Modern Aspects in Oceanography IV: Shallow water analogues of ocean/atmosphere processes (climPOSHALLOW) V2 + S1 / CP5** **Modern Aspects in Oceanography V: Ocean General Circulation Modelling (climPOOGCM) V2 + S1 / CP5** **Modern Aspects in Physical Oceanography VI: The modelled wind-driven and thermohaline circulation (climPOMODCIRC) V2 + S1 / CP5** **As well as other modules from the Faculty of Mathematics and Natural Sciences**	0 45	30 120

***** every summer semester
****** because of alternating lectures, modules have to be taken in 1. or 3. semester
******* because of alternating lectures, modules have to be taken in 2. or 4. semester