

Course code	Course title	Responsible lecturer
FoMU_526	Climate Change mitigation and adaptation	
Contents and goals of qualification	<p>Contents: Background to climate change (definition, causes, consequences, climate change and variability, climate mitigation, adaptation to climate change, climate policies and actions, carbon trading). Land use and climate change (green house gas emissions from land use change, deforestation, natural resource degradation, dominant land uses in a geographic area, analyzing change in land use. Global carbon and nitrogen cycles. Land use and carbon cycle. Drivers of deforestation and forest degradation. Reforestation and climate change mitigation. Climate action and incentives, carbon credits and carbon trading, carbon finance. REDD+ mechanism, CDM. Carbon stock inventory in forest and agroforestry systems: Measuring carbon pools, Determining activity data and emission factors, Greenhouse gas inventory. Ethiopia's climate action: CRGE strategy. Local perspectives of climate change based on case analysis.</p> <p>Goals of qualification: The students will acquire knowledge of climate change impacts as well as adaptation and mitigation strategies from the perspective of forestry.</p> <p>Practical session: carbon stock inventory, field visit of shifting cultivation areas and evaluation of carbon influx.</p>	
Modes of teaching and learning	The course comprises: 2 hr/wk Lecture and 3 hrs/wk practical (field visits, exercise, and independent studies)	
Applicability	Compulsory	
Credits and assessment	3 (2+3) Credit hour; Seminar paper (30%), Group project and presentation (20%), Written exam (50%)	
Text books	Freer-Smith PH. Broadmeadow MSJ. Lynch JM. (eds) 2007. Forestry and climate change. Columns Design Ltd, Reading, UK Recent peer reviewed journal papers published in the Ethiopian context shall be used for seminars	