

Georg-August-Universität Göttingen Universität Kassel/Witzenhausen Modul M.SIA.I12: Sustainable International Agriculture: basic principles and approaches <i>English title: Sustainable international agriculture: basic principles and approaches</i>	6 C 4 SWS
Lernziele/Kompetenzen: Students <ul style="list-style-type: none"> • are able to describe the main bio-physical and socio-economic drivers shaping agricultural production systems and land and resource use strategies; • have knowledge of relevant ecological, economic and social indicators • can describe and apply integrated approaches of indicator use for the evaluation of a system's sustainability 	Arbeitsaufwand: Präsenzzeit: 56 Stunden Selbststudium: 124 Stunden
Lehrveranstaltung: Sustainable International Agriculture: basic principles and approaches (Vorlesung) <i>Inhalte:</i> In view of global change spanning from population growth, migration, and urbanization to climate change, land degradation and water scarcity, the sustainable use of human and natural resources for the continued provision of quantitatively and qualitatively adequate food poses a major challenge to all stakeholders involved in agricultural production worldwide. This module therefore addresses the basic concepts and principles of sustainability and sustainable agriculture, in its ecological, economic and social dimensions. Approaches to determine the bio-physical and socio-economic sustainability of a land use systems and of agricultural value chains are evaluated, and possibilities to implement sustainable management strategies along the continuum of water, soils, plants, animals, producers and consumers are discussed, thereby also accounting for relevant temporal and spatial scales.	4 SWS
Prüfung: Klausur (90 Minuten) Prüfungsanforderungen: <ul style="list-style-type: none"> • general definitions and indicators for sustainable development; strong and weak sustainability; the substitution-paradigm and its limits; carrying capacity and critical natural capital; economic growth models; economic approaches for the quantification of sustainable development; SNA / green accounting; cost-benefit analysis. • dimensions of social sustainability; utilization of communal resources; McDonaldisation of agriculture; agriculture and social justice. • multi-functionality and farm-management; realization of sustainability concepts in the farm enterprise; agro-ecological systems and sustainable farm management; indicators for enterprise sustainability; controlling of sustainability; profitability of organic farming; collective forms of farming. • sustainability of livestock husbandry; environmental effects of animal keeping and their avoidance: a) GHG emissions and environmental pollution from animal holdings; b) overgrazing. 	6 C

<ul style="list-style-type: none"> • concepts of sustainability; agroforestry systems; shifting cultivation; effects on soil fertility and sustainability. • role of soils in ecosystems; soil types; soil functions and soil threats/degradation; physical, chemical and biological soil quality indicators; soil organic matter; soil as a carbon sink or source and greenhouse gas emissions; soil conservation; soil compaction. 	
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Zugangsvoraussetzungen: keine	Empfohlene Vorkenntnisse: keine
Sprache: Englisch	Modulverantwortliche[r]: Prof. Dr. Eva Schlecht
Angebotshäufigkeit: jedes Wintersemester; Witzenhausen	Dauer: 1 Semester
Wiederholbarkeit: zweimalig	Empfohlenes Fachsemester:
Maximale Studierendenzahl: nicht begrenzt	

<p>Bemerkungen:</p> <p>Literature:</p> <p>Lecture notes and reading materials distributed during the module; Bell, S. & Morse, S., 2003. Measuring sustainability: learning by doing; Earthscan, London, UK. Bell, S. & Morse, S., 2008. Sustainability indicators: measuring the immeasurable? Earthscan, London, UK.</p>
