Georg-August-Universität Göttingen **Module M.WIWI-VWL.0117: Growth, Resources, and the Environment**	6 C 4 WLH

Learning outcome, core skills: After a successful participation, students know how non-renewable resources affect long-run economic development. They learn to compute optimal intertemporal resource allocations and to critically assess actual resource use. Students learn how resource use affects the environment and which policy measures are suitable to mitigate environmental degradation. Students learn to understand the basic mechanism of global warming and to critically asses methods of evaluating the present value of future environmental damage and the implied policy recommendations. Students will be able understand the interplay of renewable resources and economic growth and the importance of property rights in renewable resource use and they will be able to discuss the core mechanisms behind long-run sustainability and collapse.	**Workload:** Attendance time: 56 h Self-study time: 124 h

Course: M.WIWI-VWL.0117.Lec **Growth, Resources, and the Environment** (Lecture) *Contents*: • The Limits to Growth (or not?) • A General Resource Constrained Model • A Theory of Resource Prices • Optimal Use of Non-renewable Resources and Suitability • Growth and the Environment: The Green Solow Model • The Economics of Global Warming • Accounting for Climate Change: The Stern Report and the Dice Model • (How) Shall We Discount the Future? • A Supply-Side Model of Global Warming and the Green Paradox • Depletion of Renewable Resources and the Tragedy of the Commons • Resource Abundance and Growth at the Country Level • Institutions and the Resource Curse • Resources, Kleptocracy, and Divide-and-Rule	2 WLH
Course: M.WIWI-VWL.0117.Tut **Growth, Resources, and the Environment** (Tutorial) *Contents*: In the accompanying tutorials, students should discuss and solve problem sets to deepen and broaden their knowledge of the topics covered in the lectures.	2 WLH
Examination: Oral examination (ca. 20 minutes) or written examination (90 minutes) M.WIWI-VWL.0117.Mp: Growth, Resources, and the Environment	6 C
Examination requirements: Demonstrate: • a profound knowledge of dynamic economic models of optimal non-renewable resource use and the ability to assess the long-run consequences of actual non-renewable resource use	

- a deep understanding of the mechanisms behind climate change and the debate on how policy should respond to it.
- a profound knowledge of dynamic economic models of renewable resource use and the ability to assess the mechanisms behind long-run sustainability and collapse
- the ability to solve problems in a verbal, graphical and analytical manner

Admission requirements:	Recommended previous knowledge:
none	Macroeconomics, Mathematics for Economists, Economic Growth, Econometrics as taught in the Bachelor courses
Language:	**Person responsible for module:**
English	Prof. Dr. Holger Strulik
Course frequency:	**Duration:**
irregular	1 semester[s]
Number of repeat examinations permitted:	**Recommended semester:**
twice	3 - 4
Maximum number of students:	
not limited	