Environmental Economics and Energy Finance

Module	Environmental Economics and Energy Finance						
Module Code	FIN60120						
Module Coordinator	Moslener, Ulf						
Last Update	2015/12/14						
Target Group	Programme(s)			Bachelor of Science			
	Term			7th semester			
	Compulsory/Elective Module			Elective Module			
	Module Duration			1 Semester			
	Credits:			6			
	Frequency			Annually			
	Language of instruction			English			
Workload: 150 h	Contact hours:	44 h	Independent Learning:	56 h	Assignments:	50 h	
Prerequisites	Finance (EN) (FIN40020)						
Usability in other Modules/Programmes	Bachelor Thesis (BSc_BT)						
Intended Learning Outcomes	**Knowledge:** • Students know key concepts of environmental economics, the rationale for government intervention and regulation (e.g. externalities); participants know the main climate policy instruments, basics of energy markets and technologies; they have an idea about the dimensions of the current international climate policy / climate finance debate and the major challenges in financing clean energy. **Skills:** • Students learn to understand climate- and energy related regulatory frameworks and to differentiate between the (societal) economic perspective and the (individual) business perspective. **Competencies:** • Students are qualified to analyse regulatory approaches in the area of climate related regulation in the energy sector. They are able to assess differences across regulatory schemes with respect to both the economic (societal) and financing perspectives. The participants are in a position to at least vaguely develop ideas about potential consequences or scenarios of alternative developments in the international climate policy process for the clean energy investment sector.						

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<tr><td>Module Structure</td><td>Energy and Climate Change are high on the agenda of most governments across the world. The structural change of the global energy system is already under way with annual investment in power generation based on renewables at almost the same level as investment in power based on fossil fuels like coal and gas.</td></tr>
<tr><td>Module Overview</td><td>This course essentially provides two perspectives towards this issue:
First, we discuss why markets alone are fundamentally not able to trigger investment in a way that environmental issues are appropriately taken into account. We then analyse policy instruments that can correct these so-called “market failures” and which are frequently applied by governments.

The second part of the course will then take the perspective of an investor who is confronted with policy and regulation and often additional investment subsidies specifically directed towards promoting renewable energy.

We discuss characteristics that fundamentally distinguish the power and power infrastructure market from the market for many other assets and look at applied examples of instruments of investment support as well as investment cases. Topics include:
• Economic fundamentals such as social optimum, public goods, market failure, market based instruments
• Primers in (i) climate change & climate policy; (ii) energy markets & energy policy
• Financing instruments, role of public finance institutions, project finance examples</td></tr>
<tr><td>Forms of teaching, methods and support</td><td>Teaching will be mainly based on interactive lectures and the discussion of cases.</td></tr>
<tr><td>Type of Assessment in the Module and Performance Points</td><td>
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<tr><th>Type of examination</th><th>Duration or length</th><th>Performance points</th><th>Due date or date of exam</th></tr>
<tr><td>In-class presentation (plus two-page handout) plus active participation in discussions</td><td></td><td>30</td><td>End of semester</td></tr>
<tr><td>Written (in-class) exam</td><td>90 min.</td><td>90</td><td>To be determined</td></tr>
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<tr><td>Recommended Literature</td><td>Perman, P., Y. Ma, J. McGilvray and M. Common (2003): Natural Resource and Environmental Economics. Addison Wesley, 3rd edition.

Kolstad, C.: Environmental Economics, Oxford.
On much of the subject there is not yet a well-established body of literature. Additional course material, journal articles, etc. will therefore be provided during the course if appropriate.</td></tr>
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