Instructor, Course Information & Objectives

Advanced Academic Programs
Zanvyl Krieger School of Arts and Sciences
Johns Hopkins University

AS.425.604.81: Energy & Climate Finance

Instructor Information
Instructor: Craig Hart
Telephone Number: (212) 951-0903
Email Address: craighart@jhu.edu
Office Hours: Every two weeks via Skype
Instructor’s Skype is craiganthonyhart

Course Description
Energy and Climate Finance introduces students to environmental markets and the policies that create them, focusing mainly on emissions trading systems (ETS) to mitigate climate change. The course also provides an introduction to attributes of the financial sector through its analysis of markets for environmental commodities. Students learn the economic theory behind market-based environmental policy instruments such as tradable renewable energy credits, carbon offsets, and water rights. Course will consider market-based instruments from perspectives of policymakers and private sector market participants (emitters and traders).

Course Goals & Learning Objectives
By the end of this course, you will be able to:
• Discuss UNFCCC, Kyoto Protocol and Paris Agreement in relation to Flexible Mechanisms
• Discuss design considerations of national and subnational emissions trading schemes (ETS)
• Differentiate Kyoto (CDM and JI) and voluntary offsets markets, and REDD
• Use and negotiate Emissions Reduction Purchase Agreements (ERPAs)
• Use CDM methodologies for baseline, project emission, leakage, additionality, monitoring
• Evaluate carbon management projects
Section 2
Course Materials

Readings
Readings are listed on each course module page.

Other equipment / software / websites / online resources
UNFCCC website: http://unfccc.int

Specific Technology Requirements & Skills for this Course
Learning online requires some basic knowledge of computer technology. At a minimum, you need to be able to:
- Navigate in and use Blackboard; the Blackboard Student Orientation course on your “My Institution” page
- Create and save MS Word documents; see MS Word tutorials for PC users (all versions); Word Help for Mac users
- Find basic resources on the Internet
- Create and organize files & folders on your computer
- Send, receive, and manage email
Section 3

About Your Course

Course Topics

- **Week 1**  Role of Carbon Finance
- **Week 2**  Introduction to UNFCCC
- **Week 3**  Flexible Mechanisms
- **Week 4**  Emissions Trading Schemes I - Design Issues
- **Week 5**  Emissions Trading Schemes II - Design Issues
- **Week 6**  Other Approaches to Carbon Finance
- **Week 7**  Emissions Reductions Methodologies I
- **Week 8**  Emissions Reductions Methodologies II
- **Week 9**  Scaling Up Carbon Finance
- **Week 10**  REDD
- **Week 11**  ERPA Terms I
- **Week 12**  ERPA Terms II
- **Week 13**  GHG Footprinting
- **Week 14**  Future Direction of Climate Finance

Directions for Students

**Next Steps:** Carefully review the remaining sections of the syllabus section of this course before beginning Week 1 activities, which are located in the Lessons folder in your online course.

- Once you feel that you are ready to dive into the first week’s activities, click on the Lessons button on the left-side navigation menu. Then, click on Lesson 1/Week 1/Unit 1 to begin with the Introduction and Objectives.

What To Expect in this Course

The course introduces the field of energy and climate finance, with an emphasis on carbon management and finance. It focuses on the development of international carbon markets under the Kyoto Protocol and domestic emissions trading schemes (ETS). Topics will include ETS design, carbon offset projects under the Clean Development Mechanism and Joint Implementation, and the future of market-based mechanisms.
Section 4
Assessments and Grading Policy

Assignments

<table>
<thead>
<tr>
<th>Assignments</th>
<th>Due Dates</th>
<th>Points Possible</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignment 1: CDM Methodology Review</td>
<td>Week 8</td>
<td>30%</td>
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<tr>
<td>Select a small-scale CDM methodology and summarize at least five requested changes to the methodology</td>
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<tr>
<td>Assignment 2: Research Paper</td>
<td>Week 13</td>
<td>60%</td>
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<tr>
<td>Select an jurisdiction (other than European Union) and evaluate the design of their ETS from environmental, markets and economics viewpoints</td>
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<tr>
<td>Assignment 3: Course Engagement</td>
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<td>10%</td>
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<tr>
<td>You are expected to have an active presence in course discussions which will be held live via Skype and via Blackboard, and complete course activities as noted in the assignment guidelines to maximize your learning. Participation in activities should be consistent, of high quality, and reflect both a high level of academic thinking and your own personal perspectives, opinion, and ideas.</td>
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<td>Total</td>
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<td>100%</td>
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Grading

- A+ 98% to 100%
- A 94% and less than 98%
- A- 90% and less than 94%
- B+ 88% and less than 90%
- B 84% and less than 88%
- B- 80% and less than 84%
- C 70% and less than 80%
- F 0% and less than 70%

Assignment Guidelines

How should assignments be submitted?
The weekly directions will indicate where assignments will be posted (e.g. in assignment tool within the Lessons folder). If submitting documents to an assignment or forum, please specify the assignment name in the discussion thread and/or the document title. When creating files, include your name and the name of the assignment in the file title. Also, please be sure to only include one period in file names. The period should be between the file name and the extension. For example: mmentzer_assignment1.doc

**When will assignments be due?**
Assignment and activity due dates are listed in this syllabus and the weekly checklists. The instructor via an announcement in your online classroom will announce changes. Some larger assignments will be completed over several weeks. In these cases, you will be prompted to complete portions of the assignment each week.

**When will completed assignments be returned?**
The instructor will aim to return assignments to you within 7-10 days following the due date, depending on the length of the assignment. You will receive feedback under the My Grades link on the left hand menu of your course.

**What is the policy for late assignments?**
You are expected to contact your instructor in advance if you think you cannot meet an assignment deadline.

**Time Management Expectations**

**What is the time demand and schedule of the course?**
Because this is a graduate-level course that is offered in a condensed format, the rigor and time commitment is higher than a traditional 15-week semester course. It is expected that you look ahead to schedule your time. Plan to complete coursework across several days of the week rather than all in one day. Be sure to consider how group activities impact your schedule as well.

Some assignments require that you work on them for multiple weeks. Be sure to review the assignment directions at the beginning of the course so that you can plan your time accordingly. Please seek help before becoming frustrated and spending a significant amount of time to resolve an issue.
Section 5
Course Participation & Communication Policy

Participation

What are the participation requirements?

You are expected to log into the Blackboard at least once a week. It is your responsibility to read all announcements and discussion postings within your assigned forums. You should revisit the discussion multiple times over the week to contribute to the dialogue.

Network Etiquette (i.e. “Netiquette”)

In this course, online discussion will be primarily take place in our online discussion board. In all textual online communication it’s important to follow proper rules of netiquette.

What is netiquette? Simply stated, it’s network etiquette -- that is, the etiquette of cyberspace. And "etiquette" means the social and cultural norms of communicating with others in a proper and respectful way. In other words, netiquette is a set of rules for behaving and interacting properly online.

The Netiquette “Core Rules” linked below are a set of general guidelines for cyberspace behavior. They probably won’t cover all situations, but they should give you some basic principles to use in communicating online.

For Netiquette Core Rules visit The Core Rules of Netiquette web page.

Contacting the Instructor

Feel free to contact your instructor with comments, questions, and concerns.
Section 6

Course Protocols

How will I know about changes to the course?
Frequently, you will find new announcements posted in the Announcements, which contain information about current course activities that you are working on and any changes to the course. Please check announcements every time that you log into your online course.

How should I communicate with others in this course?
You should communicate often with your classmates and with your instructor. The majority of communication will take place within the Discussion forums. When you have a question about an assignment or a question about the course, please contact your instructor, or post your question in the course’s “Syllabus & Assignment Question” forum.

Are there any requirements for sending e-mail messages?
When you send an e-mail message to the instructor or to another participant in the course, please observe the following guidelines:
- Include the title of the course in the subject field (e.g., JHU Energy & Climate Finance).
- Keep messages concise, and check spelling and grammar.
- Send longer messages as attachments.
- Sign your full name (the sender's email is not always obvious).
Section 7

Course Topics, Activities & Schedule

Tentative Course Schedule

**Important Note:** Activity and assignment details will be explained in detail within each week’s corresponding learning module. If you have any questions, please contact your instructor.

The schedule is subject to change with fair notice and how the notice will be made available.

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topics</th>
<th>Activities</th>
<th>Assessments &amp; Due Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>Role of Carbon Finance</td>
<td>UNFCCC Climate Finance <a href="http://unfccc.int/focus/climate_finance/items/7001.php">1</a></td>
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<td>UNEP Climate Change Finance <a href="http://www.unep.org/climate_change/finance/Introduction/tabid/29540/Default.aspx">2</a></td>
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<tr>
<td>2</td>
<td></td>
<td>Introduction to UNFCCC</td>
<td>UNFCCC Kyoto Protocol</td>
<td>Office Hours</td>
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<td>3</td>
<td></td>
<td>Flexible Mechanisms: Overview of the Clean Development Mechanism and Joint Implementation and Trading</td>
<td>UNFCCC Website - CDM Page - <a href="http://unfccc.int/kyoto_protocol/mechanisms/clean_development_mechanism/items/2718.php">3</a></td>
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<td>UNFCCC JI Website Page: <a href="http://ji.unfccc.int/">4</a></td>
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<td>CD4CDM UNEP Risoe CDM Pipeline, available at</td>
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</table>
| 4 | Emissions Trading Schemes I - Design Issues | Pew Center on Global Climate Change, Carbon Market Design & Oversight: A Short Overview
|---|---|---|---|
| 6 | Other Approaches to Carbon Finance | Nell, Semmler and Schwartz, Economic Growth and Climate Change: Cap-And-Trade or Emission Tax?, Schwartz Center for Economic Policy Analysis, The New School
Anja Kollmuss (SEI-US), Helge Zink (Tricorona), Clifford Polycarp (SEI-US), Making Sense of the Voluntary Carbon Market A Comparison of Carbon Offset Standards. WWF
Research Paper - Submission of Topic and Outline: The second course paper is a research paper due Week 13. Additional information is available in the course Assessment Plan. By the end of Week 6, prepare an outline of the paper and submit for review via BlackBoard. |
<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
<th>Reading/Notes</th>
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</table>
| 7    | Emissions Reductions Methodologies I       | AM-tool-02: Combined tool to identify the baseline scenario and demonstrate additionality  
|      |                                            | AM-tool-03: Tool to calculate project or leakage CO2 emissions from fossil fuel combustion |
| 8    | Emissions Reductions Methodologies II      | AM-tool-07: Tool to calculate the emission factor for an electricity system       |
|      |                                            | Office Hours  
|      |                                            | Methodologies Paper require students to summarize a methodology and revisions to it. Due week 8. |
|      |                                            | IETA, Thinking Through Design Possibilities for a Sectoral Crediting Mechanism: Three Options to Encourage Discussion (March 2010). |
| 10   | REDD                                       | CIFOR, Moving Ahead with REDD: Issues, Options and Implications. Chapters 2, 3, 4, 6, 7 and 8. |
| 11   | ERPA Terms I                               | Current version of CERSPA and Guidance Document at |

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<th>12</th>
<th>ERPA Terms II</th>
<th>Same as above</th>
<th>Office Hours</th>
</tr>
</thead>
</table>
| 13 | GHG Footprinting | WBCSD and WRI, Greenhouse Gas Protocol: Corporate Accounting and Reporting Standard  
WBCSD and WRI, Corporate Value Chain (Scope 3) Accounting and Reporting Standard | Research Paper: The second course paper is a research paper. Additional information is available in the course Assessment Plan. Turn the paper in via BlackBoard by Saturday of this week. |
|    |                 | Available at http://www.ghgprotocol.org/ |              |
Information on the Warsaw International Mechanism for Loss and Damage (referenced in Paris Agreement)  
http://unfccc.int/adaptation/workstreams/loss_and_damage/items/8134.php  
UNFCCC http://unfccc.int | Office Hours |
Section 8

University Policies

General

This course adheres to all University policies described in the academic catalog. A few to pay close attention to are noted below.

Students with Disabilities

Johns Hopkins University is committed to providing reasonable and appropriate accommodations to students with disabilities. Students with documented disabilities should contact the coordinator listed on the Disability Accommodations page. Further information and a link to the Student Request for Accommodation form can also be found on the Disability Accommodations page.

Ethics & Plagiarism

JHU Ethics Statement: The strength of the university depends on academic and personal integrity. In this course, you must be honest and truthful. Ethical violations include cheating on exams, plagiarism, reuse of assignments, improper use of the Internet and electronic devices, unauthorized collaboration, alteration of graded assignments, forgery and falsification, lying, facilitating academic dishonesty, and unfair competition. Report any violations you witness to the instructor.

Read and adhere to JHU’s Notice on Plagiarism.

Dropping the Course

You are responsible for understanding the university’s policies and procedures regarding withdrawing from courses found in the current catalog. You should be aware of the current deadlines according to the Academic Calendar.

Getting Help

You have a variety of methods to get help. Please consult the help listed in the "Blackboard Help" link in the online classroom for important information. If you encounter technical difficulty in completing or submitting any online assessment, please immediately contact the designated help desk listed on the AAP online support page. Also, contact your instructor at the email address listed atop this syllabus.