Fall 2018 Syllabus

**Energy, Climate Change and Sustainable Development in China**

**Course code: X130615**

Course organiser: Jia Li

Email: j.li@sjtu.edu.cn

**Course Overview:**

This course explores the challenges associated with climate change, energy and environmental policies from multiple perspectives, disciplines and scales. Students will examine the evolving science and policy of climate change, observe the conflicts between energy companies and interest groups in China, discuss technology innovations and its impact on reducing greenhouse gases emission. Parallel to that, China’s energy and environmental policies will be scrutinized in a context of global and domestic politics. Through various case studies, students are encouraged to grasp the nature of China’s national development strategies and the risks and challenges the country is facing in implementing its “green policies”.

**Learning outcomes:**

(1) understand the interaction between politics and economics, especially in a Chinese context.

(2) understand the economic dimension of foreign policy and international politics regarding energy and environmental issues

(3) understand the interaction between mitigation, energy efficiency and technology innovation.

(4) integrate different stakeholder perspectives, disciplines, scales and geographic contexts in evaluating China’s mitigation efforts, energy and environmental policies.

(5) understand China’s developmental approach and the shift from a GDP-orientation to a more balanced development.

(6) develop both oral and written communication skills to facilitate systematic analysis and effective consideration of these complex issues

**Recommended Readings:**

IPCC fifth Assessment Report: Climate Change 2014 –Synthesis Report (6th assessment report will be available towards the end of 2018)

<http://ipcc.ch/pdf/assessment-report/ar5/syr/SYR_AR5_FINAL_full_wcover.pdf>

IEA World Energy Outlook 2015 (this is the free version)

<https://webstore.iea.org/world-energy-outlook-2015>

**Course Requirements and Grading Distribution**

Group Presentations 40% Final research paper 60%

Each student will have one opportunity to initiate the class session with a 15-30 minutes group presentation prepared in advance with group members. These presentations should NOT be a simple summary of the readings, but should integrate and synthesize the assigned readings, report on an additional related resource, and conduct in-depth analysis.

Final Research Paper: The final research paper provides an opportunity for each student to explore in more depth one aspect of the challenges associated with climate change, energy, and development strategy. This final paper can address and explore a research question that expands on the previous presentation. The final research paper is limited to less than 5000 words.

**Schedule: 11 weeks@3 hours/week**

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| Date | Topic |
| Week 1 | -Main features of climate change politics – Interaction between climate change, energy and environment |
| Week 2 | China’s development strategy and its impact on climate change |
| Week 3 | China’s energy policy China’s efforts in improving its energy efficiency, reducing its energy intensity and energy security |
| Week 4 | Techno-economic of Coal, CCS, biomass development |
| Week 5 | Techno-economic of CCGT, Gasification, IGCC, CTL |
| Week 6 | Techno-economic of Nuclear |
| Week 7 | * China’s renewable energy and its “green ambition”: wind, solar and hydro |
| Week 8 | Policy and regulation   * Policy processes: actors, institutions and processes * China’s energy policy landscape * The transition of China’s energy policy |
| Week 9 | International relations:   * Global and China’s energy governance * International regimes on resource governance and climate change * Conflict or Cooperation? – Energy and Resource Disputes in Asia |
| Week 10 | Global governance   * The political economy of climate change: the role of business * The political economy of climate change: market-based instrument * Public engagement: the role of Consumers and citizens |
| Week 11 | Regional Low Carbon Policy Case study |
| Week 12 | Group Discussion |