JINDAL SCHOOL OF BANKING & FINANCE
India's First Global Finance School
JINDAL GLOBAL UNIVERSITY

O.P. Jindal Global University
A Private University Promoting Public Service

BFXU-03-BCM-FNE3311 - Energy Policy and Finance

Elective – Spring Semester 2026

Course Information

Course Duration: Spring Semester 2025
Credit Hours: 60 hours
Meetings: 2 classes per week
Location**:** TBA
Prerequisites: NA
Equivalent Courses:
Exclusive Courses: NA

Instructor Information

Instructor: Prof Siddharth Upreti
Biography: Prof Siddharth is an alumnus of King's College London, where he studied Public Policy and Management. Prior to joining O.P Jindal Global University, he worked at PricewaterhouseCoopers Pvt Ltd (PwC). During his stint at PwC, he worked for an array of projects wherein his deliverables were specifically related to regulatory affairs in the energy sector. Prior to his management consulting stint, he worked for a public statutory institution, Electricity Regulatory Commission at Rajasthan. His research interests include but are not limited to energy policy, behavioral change and WASH policy.
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Office Hours: To be announced

1. Course Description

Energy policy and finance plays a vital role in shaping the energy landscape, addressing sustainability challenges, and ensuring a secure and affordable energy supply. This course explores the multifaceted nature of energy policy and finance, covering a range of topics from energy sources and technologies to environmental considerations, economic implications, and social dimensions.

The course begins with an introduction to energy policy and energy finance, examining its definition, scope, and significance, specifically in the context of sustainable development. This course on provides a comprehensive understanding of financial principles applied to the energy sector, covering key topics including energy markets, energy trading, and carbon markets. Students will explore the key objectives of energy policy and gain an understanding of the diverse stakeholders involved in policy formulation and implementation. An essential aspect of the course is the exploration of different energy sources and technologies.

The economic and financial implications of energy policy are also examined. Students will explore the interplay between energy policy and growth, as well as the potential for a just transition to a sustainable energy future. The social and ethical dimensions of energy policy are given due attention. Students will examine the concepts of energy access, affordability, equity, and social justice. The course will emphasize community engagement, participation, and ethical considerations in energy policy formulation and implementation.

Throughout the course, students will analyse case studies and best practices from different countries, gaining insights into successful energy transitions and lessons learned. They will also explore future trends and challenges in energy policy, including the energy transition, technological advancements, policy adaptation, and geopolitical considerations. By the end of the course, students will have developed a comprehensive understanding of energy policy and will be able to critically analyse and develop informed recommendations for future energy policies.

2. Course Intended Learning Objectives(Aim)

Course Intended Learning Outcomes	Teaching and Learning Activities	Assessments/ Activities
Understand the fundamental principles and concepts of energy policy	May include lectures, case study, short videos, research articles and class presentations	In-class quizzes, student polls, presentations, mid term and end term
Apply critical thinking and problem-solving skills to real-world energy	May include lectures, case study, short videos, research articles and class presentations	In class- quizzes, student polls, presentations, mid term and end term

policy challenges		
Examine interplay between energy policy and energy/power sector	May include lectures, and class presentations	In class- Quizzes, student polls, presentations, mid term and end term
Analysis of the uptake of Renewable and Clean Energy Technologies	May include lectures, short videos, research articles, case study, and class presentations	In class-quizzes, student Polls, presentations, mid term and end term

3. Scheme of Evaluation and Grading

Evaluation breakup

Assessment Task	Weightage	Nature	Week of Assessment
A1: Mid -Semester	30	Individual	TBA
A2: Quiz	25	Individual	TBA
A3: Presentation	15	Group	TBA
A4: End Term	30	Individual	End of Semester

Internal breakup

Assessment Task	Weightage	Nature	Week of Assessment
A1: Mid -Semester	30	Individual	TBA
A2: Quiz	25	Individual	TBA
A3: Presentation	15	Individual	TBA

Components

A1: Mid-Semester

Mid-Semester

The Mid Semester Exam will be conducted in the 8th week and will be held in-class in a pen-and-paper, closed-book format. The exam will cover all topics discussed from Week 1 to Week 7. It will carry a total of 30 marks and will have a duration of 1 hour and 30 minutes. The question paper will be divided into two sections: Section A will contain 3 questions worth 5 marks each; all questions are compulsory. Section B will include three questions worth 15 marks each, from which students must answer one question. Students are encouraged to include

diagrams, definitions, and case studies discussed in class, and to use examples that demonstrate the application of theoretical concepts in real-world contexts.

Evaluation Rubric

Criteria	Description	Weightage
Content	Accuracy, clarity, and depth of concepts presented; correctness of definitions and logical flow.	**25%**
Comprehensiveness of the Answer	Coverage of all relevant aspects, inclusion of key points, sub-points, and complete explanation.	**25%**
Comprehension and Understanding of the Topic	Demonstrates strong conceptual understanding, analytical thinking, and interpretation of key ideas.	**25%**
Relevance to Class Material	Ability to connect answers to lectures, readings, discussions, and class examples.	**15%**
Real-world Application	Integration of practical examples, diagrams, and case studies to illustrate theory in context.	**10%**

A2: Quiz

Students will be required to appear in a quiz. The quiz will include an array of multiple-choice questions. Students will be informed in advance about the upcoming quiz, and it is their responsibility to be present during the in-class assessment. Each quiz will carry 25% of the total marks. Quiz will be closed book, in-class pen and paper exam.

A3: Group Presentation

Students will need to prepare a group presentation on a topic, as decided and approved by the course instructor in class. The group presentation component will carry 15% of the total marks.

The above exam components weightages and the dates will be informed by the instructor in class.

External breakup

A4: End Term

End term exam will be closed book, in-class pen and paper exam. It will carry 30% of the total marks.

Grade Definition

Grade Sheet:

The schema of the grade sheet may change. Students will be informed well in advance of any changes in the schema of the grade sheet.

Grade	Percentage of Marks	Grade Points	Grade Description
O	80% and above	8	**Outstanding** – Exceptional knowledge of the subject matter, thorough understanding of issues; ability to synthesize ideas, rules and principles and extraordinary critical and analytical ability
A+	75% – 79.75%	7.5	**Excellent** - Sound knowledge of the subject matter, thorough understanding of issues; ability to synthesize ideas, rules and principles and critical and analytical ability
A	70% – 74.75%	7	**Very Good** - Sound knowledge of the subject matter, excellent organizational capacity, ability to synthesize ideas, rules and principles, critically analyse existing materials and originality in thinking and presentation
A-	65% – 69.75%	6	**Good** - Good understanding of the subject matter, ability to identify issues and provide balanced solutions to problems and good critical and analytical skills
B+	60% – 64.75%	5	**Fair** – Average understanding of the subject matter, limited ability to identify issues and provide solutions to problems and reasonable critical and analytical skills
B	55% – 59.75%	4	**Acceptable**- Adequate knowledge of the subject matter to go to the next level of study and reasonable critical and analytical skills.
B-	50% – 54.75%	3	**Marginal**- Limited knowledge of the subject matter and irrelevant use of materials and, poor critical and analytical skills
P1 or C	45% – 49.75%	2	**Pass 1:** Pass with Basic understanding of the subject matter.
P2 or D	40% – 44.75%	1	**Pass 2:** Pass with Rudimentary understanding of the subject matter.
F	Below 40%	0	**Fail:** Poor comprehension of the subject matter; poor critical and analytical skills and marginal use of the relevant materials. Will require repeating the course.
P	Pass	"Pass" in a pass/fail course.	**'P'** represents the option of choosing between Pass/Fail grading system over the CGPA grading system in the COVID 19 semester in Spring 2020. The option is provided when students attain a minimum of 40 percentage marks under the current grading structure in a given subject.

I	Incomplete		Extenuating circumstances preventing the student from completing coursework assessment, or taking the examination; or where the Assessment Panel at its discretion assigns this grade. If an **"I"** grade is assigned, the Assessment Panel will suggest a schedule for the completion of work, or a supplementary examination.

Repeat Examination
As per university policy

Academic Honesty, Cheating, and Plagiarism.

4. Academic Integrity

JGU Policies and Expectations

Students who score less than forty (40) marks out of the total of hundred (100) marks at the end of the semester (i.e., after adding the internal assessment marks and the marks scored in the end- semester examination), or score less than 30% (15 marks) in their end-semester examination, in any compulsory course, shall be declared 'fail' in that paper. A 'fail' shall also be declared for students who have not appeared in the end semester examination, including cases where non-appearance is due to reasons related to Learning and knowledge production of any kind is a collaborative process. Collaboration demands an ethical responsibility to acknowledge who we have learnt from, what we have learned, and how reading and learning from others have helped us shape our own ideas. Even our own ideas demand an acknowledgement of the sources and processes through which those ideas have emerged. Thus, all ideas must be supported by citations. All ideas borrowed from articles, books, journals, magazines, case laws, statutes, photographs, films, paintings, etc., in print or online, must be credited with the original source. If the source or inspiration of your idea is a friend, a casual chat, something that you overheard, or heard being discussed at a conference or in class, even they must be duly credited. If you paraphrase or directly quote from a web source in the examination, presentation or essays, the source must be acknowledged. The university has a framework to deal with cases of plagiarism. All form of plagiarism will be taken seriously by the University and prescribed sanctions will be imposed on those who commit plagiarism.

Participation/Attendance Policy

As per university policy

Use of phone/ texting/ laptop

Use of phone and texting is not allowed.
Laptops may be allowed depending on the topic being covered.

5. Keyword Syllabus

Energy Policy, Energy Finance, Sustainability

6. Course Material

Text books

1. Bradford, T. (2018). The Energy System: Technology, Economics, Markets, and Policy. MIT Press. [Core Reading]

Reference books

1. Simkins, B. and Simkins,R. (2013). Analysis and Valuation, Risk Management, and the Future of Energy. Wiley

2. Niti Aayog (2017). *India's National Energy Policy.* New Delhi: Niti Aayog. Available at: http://niti.gov.in/writereaddata/files/new_initiatives/NEPID_27.06.2017.pdf

3. Ozawa, M., Chaplin, J., Pollitt, M., Reiner, D. and Warde, P. (eds) (2019) in *In Search of Good Energy Policy*. Cambridge: Cambridge University Press (Cambridge Studies on Environment, Energy and Natural Resources Governance), pp. i-ii.

4. Patt, A. (2015) *Transforming Energy: Solving Climate Change with Technology Policy*. Cambridge: Cambridge University Press. doi: 10.1017/CBO9781139162210.

5. Vedavalli, R. (2007) *Energy for Development: Twenty-first Century Challenges of Reform and Liberalization in Developing Countries*. Anthem Press. doi: 10.7135/UPO9781843313779.

Journals / Business Magazines – As per session plan
Web Sources – As per session plan

7. Session Plan

Session (with Date)	General Topic	Readings	Approach / Pedagogy
Session 1-2	Introduction to Energy Policy and Finance Basic concepts including - Energy Use; Energy Intensity (E/GDP); Total Primary Energy Supply; Forecasting Energy Demand.	Core Reading Ch. 1	Lectures introducing foundational energy concepts supported by short explanatory videos, followed by in-class discussions on India's energy demand and use patterns.
Session 3-4	Energy Policy: A historical overview and basics	Core Reading Ch. 1-2, Policy briefs and publicly available government documents.	Lectures using visual timelines and short documentary videos on global and Indian energy policy evolution, followed by guided in-class discussions on key policies.
Session 5-6	Climate change	Core Reading Ch 20 Berkhout, Frans. 2002. Technological regimes, path dependency and the environment. Global Environmental Change 12, no. 1 (4): 1-4	Lectures explaining climate–energy linkages, complemented by short educational videos on climate impacts, and class discussions on technology and policy responses.
Session 7-9	Renewable Energy and Finance	Core Reading Ch 8 , Policy briefs available	Lectures combined with instructional videos on renewable technologies, followed by in-class discussions and brief reflections on renewable energy policy

			frameworks.
Session 10-12	Electricity Markets: Levelized Cost and Procurement Strategies - Levelized Cost of Electricity.	Core Reading Ch 5	Lectures with whiteboard explanations on Levelized Cost of Electricity, supported by short tutorial videos, and in-class discussions on calculation methods and applications.
Session 13-14	Purchase of Wholesale Electricity; Forward Markets, Day Ahead Markets, Real time markets; Buying Capacity; Buying Transmission	Core Reading Ch 5; publicly available government documents.	Lectures with schematic explanations of electricity markets, supplemented by brief explanatory videos, and in-class discussions analysing sample market scenarios.
Session 15-17	Energy Transition, Energy Security and Energy Access + Midterm	1. https://doi.org/10.1016/j.enpol.2014.09.005 2. https://www.adb.org/sites/default/files/publication/31154/ewp-383.pdf 3. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2022/Mar/IRENA_World_Energy_Transitions_Outlook_2022.pdf?rev=6ff451981b0948c6894546661c6658a1	Lectures explaining the concepts of energy transition and access, integrated with videos on global case studies, followed by in-class discussions and midterm review.
Session 18	Transport and Energy Policy	1. Core Reading Ch 13 and Ch 15 (Chapter 15 A.4. Advances in Biofuel Feedstocks and Technology). 2. Jenn, Alan, Katalin Springel, and Anand R. Gopal. 2018. Effectiveness of electric vehicle incentives in the United States. Energy Policy 1 (19): 349-356.	Lectures presenting transport–energy interconnections with video illustrations on electric mobility, followed by in-class discussions on policy effectiveness.
Session 19-20	Carbon Markets: 1 Understanding Carbon Markets 2. Carbon Market Principles	1.https://www.ceew.in/sites/default/files/carbon-credit-markets-in-india-prospects-stakeholder-perspectives.pdf 2.https://www.jpmorganchase.com/content/dam/jpmc/jpmorgan-chase-and-co/documents/carbon-market-principles.pdf	Lectures introducing carbon market concepts, supported by explanatory videos, and in-class discussions evaluating international and Indian approaches.
Session 21-23	Governmental Carbon Pricing + Quiz	https://www.unepfi.org/wordpress/wp-content/uploads/2021/07/FINAL-AOA-Discussion-paper-on-governmental-carbon-pricing.pdf	Lectures on governmental carbon pricing models, reinforced by short policy explainer videos, and in-class discussions leading to a quiz-based reflection.
Session 24-26	Financing Green Infrastructure a) Rationale for Green Infrastructure Finance (Ch.1) b) Economic Rationale of Green Investments (Ch 2.)	https://documents1.worldbank.org/curated/en/343711468343734503/pdf/684910PUB0EPI0067926B09780821395271.pdf	Lectures outlining green infrastructure finance concepts, accompanied by case study videos, and in-class discussions exploring financial rationales.
Sessions 27-28	Assessment of Green Investment Climate (Ch 4) + Presentations	https://documents1.worldbank.org/curated/en/343711468343734503/pdf/684910PUB0EPI0067926B09780821395271.pdf	Lectures summarising assessment frameworks, supported by videos on green investment cases, followed by student-led in-class discussions and presentations.
Session 29-30	Revision Week	Revision for all topics covered	Revision lectures supported by recap videos and interactive in-class discussions to consolidate all core concepts.