

Hosted by:

Research Center for Energy Technology and Strategy (RCETS) National Cheng Kung University (NCKU)





In collaboration with these NCKU international programs:

International Master Degree Program on Energy Engineering International Bachelor Degree Program on Energy (IBPE)

This summer school course, which will continue on into the first 12 weeks of the Fall Semester of 2017, is a collaboration between Purdue University and NCKU. The American lecturer with support of an instructor from NCKU will present to both undergraduate and graduate students the following topics:

- Energy technology and the role of entrepreneurship/ innovations in technological development and deployment
- Impacts of energy technology on society, including climate/environmental, economics/business, and food/water, and the role of policies/regulations
- Global energy strategies that will have impacts on the environment, and the role of culture, politics, and economics

The objectives of this course include increasing your global perspective, engaging in interactive/collective learning, and considering multiple viewpoints. Students from different disciplines will be able to participate in the following domains: science, engineering and technology, social sciences, and business/management.



Lecturer from Purdue University

Professor Pankaj Sharma

Lecturer from NCKU

Dr. Rodney H. Matsuoka

Whom is this course for?

- This 3-unit course is open to all undergraduate and graduate students of any major/field who are officially enrolled in the Fall Semester of 2017 at NCKU.
- Prerequisites: None, other than a general interest in the topic of global renewable energy strategy and policy
- <u>To register for this class</u>, please visit the IBPE office in the Department of Aeronautics and Astronautics (DAA) and speak with Ms. Joy Yung. Her email address is <u>z9609020@email.ncku.edu.tw</u> and her phone number is +886-6-2757575 ext. 63637.

授課對象:

- 本課程為開放給各系所大學部及研究所同學的3學分課程。無須先修任何課程,只要對全 球再生能源策略與政策感興趣即可。
- 欲選修本課程同學必須至航太系國際能源學程辦公室報名,相關修課問題及資訊,請聯絡 雍小姐,電話: 06-2757575 分機:63637、電子郵件信箱: z9609020@email.ncku.edu.tw。

Class Schedule

Part I (18 lecture hours)

| | | Monday (Sept. 11) | Tuesday (Sept. 12) | Wednesday (Sept. 13) | Thursday (Sept. 14) | Friday (Sept. 15) |
|-----------|--|----------------------------|----------------------------|-----------------------------------|-----------------------------|-----------------------------|
| I | 10:00–11:30 a.m. | Introduction; Course | Energy Sources | Electricity Grid | Water and Food | Nexus; Policy & |
| ion | | Outline; Expectations | (Fossil) | | | Regulations and |
| Sessi | | | | | | Economics & Business |
| Se | | | | | | |
| | | | | | | |
| | 11:30 a.m.–1:30 p.m. | Lunch Break | Lunch Break | Lunch Break | Lunch Break | Lunch Break |
| 2 | 11:30 a.m.–1:30 p.m. 1:30–3:00 p.m. | Lunch Break Sustainability | Lunch Break Energy Sources | Lunch Break Energy Utilization | Lunch Break Environment and | Lunch Break Case Studies |
| | | | | | | |
| | | | Energy Sources | Energy Utilization | Environment and | Case Studies |
| Session 2 | | | Energy Sources | Energy Utilization (Buildings and | Environment and | Case Studies (BP Oil Spill, |

Midterm exam on Wednesday (Sept. 13) 5:00–6:30 PM Final exam on Friday (Sept. 15) 5:00–6:30 p.m. or Saturday (Sept. 16) from 10:00–11:30 a.m.

Part II (36 lecture hours)

| | Tuesday (Sept. 19) | Tuesday (Sept. 26) | Tuesday (Oct. 3) | Tuesday (Oct. 10) | Tuesday (Oct. 17) | Tuesday (Oct. 24) |
|-----------|--------------------|---------------------|---------------------|--------------------|-----------------------|-------------------|
| | The Energy Problem | Energy Problem as | The Energy System | Holiday (no class) | Economics of the | Midterm Exam |
| 3:00-6:00 | & Global Warming | Policy Problem | | | Energy System | |
| p.m. | | | | | | |
| | | | | | | |
| | Tuesday (Oct. 31) | Tuesday (Nov. 7) | Tuesday (Nov. 14) | Tuesday (Nov. 21) | Tuesday (Nov. 28) | Tuesday (Dec. 5) |
| | Policy Instruments | Renewable Energy as | Smart and Resilient | Circular Economy | Conservation & | Final Exam |
| 3:00-6:00 | | Disruptive | Cities | | Citizen Participation | |
| p.m. | | Technology & | | | | |
| r | | Energy Politics | | | | |