I. Catalogue description
This course addresses contemporary issues in energy economics facing Lebanon. Evaluates energy sector economic policies in production and, pricing, taxation and conservation and provides alternatives policies and solutions.

II. Course Description
This course aims at exposing students to applied energy issues that face Lebanon and similar countries. The course will address the problems facing the government’s decision making pertaining to the energy sector including production, tariffs and taxes. The power sector will be examined and policy reform intended to resolve the current constraints in the sector will be evaluated. The course also focuses on designing corrective policy measures and methodology that can be used to determine optimal solutions, and evaluate constraints preventing reform. All phases of power will be addressed including production, transmission, distribution, collection, pricing, and ownership. It will address other uses of energy including transportation and for industry and households.

Overall energy policy in Lebanon will be evaluated comparatively including production, pricing, subsidies and taxes and their fiscal and economic impact. The course will address energy efficiency policies and plans and their relevance to Lebanon.

With Lebanon holding a good potential of becoming an oil and gas producer, the course will address fiscal regimes (exploration and production contracts) in the energy sector, evaluate the government’s current regime proposals and alternative regimes. It will evaluate the economic and fiscal potential of oil and gas wealth with the aid of fiscal models, and the feasibility of sovereign wealth funds.

Pre-requisites: ECON 211 or equivalent or consent of the instructor

III. Course Learning Outcomes
Upon completion of this course:
   a. Students will have acquired a profound knowledge of contemporary issues in energy economics that face Lebanon
   b. Students will have acquired the necessary economic tools to analyze fiscal decisions pertaining to the energy sector in Lebanon
   c. Students will have applied different economic policy tools allowing them to evaluate current government plans in the areas of electricity production, energy conservation and pricing.

IV. References: (references will be updated as the course proceeds)
- Bessembinder, H. “Equilibrium pricing and Optimal Hedging in Electricity Forward markets”, May 2000
V. Assessment
• Course papers preparation (25%): The project assignment is to write a 10-page research papers related to the covered material
• Presentations of papers (10%)
• One midterm (25%)
• Final Exam (35%)
• Classroom participation (5%)

VI. A tentative course outline. Readings (including additional articles) will be assigned on a weekly basis

1. Introduction
• Energy sources-direct and indirect sources in Lebanon

2. Electricity – consumption determinants-the case of Lebanon
• Household
• Industry
• Consumption function estimates

3. Electricity production in Lebanon
• Existing capacity and problems: production, transmission, distribution and collection

4. Other energy sources’ uses
• Transportation
• Household
• Industry

5. Energy policy in Lebanon
• Electricity tariff structure and regulation
• Gasoline and gas pricing policy
• Energy efficiency action plans- power and transportation

6. Reform of the electricity power sector in Lebanon
• State production
• Private sector: Independent power production IPP
• Public –private partnership feasibility in production
• Tariff reforms
• Pricing model for Lebanon
• Pricing models for power- review of international experiences

7. Fiscal impact of energy policy- the case of Lebanon
• Revenue impact – energy taxation
• Expenditure impact
• Energy Subsidy policy- targeting policy
8. Oil & gas prospects in Lebanon
   - Oil Fiscal regimes
   - Concessional systems
   - Contractual system
   - Selection criteria
   - Gas/oil distribution and marketing constraints
9. Government oil revenue prospects and sovereign wealth fund
10. Fiscal simulation model of oil outlook in Lebanon
11. Papers (10 pages) - Creative papers on energy issues