

## **Allegato 1 all'Avviso 45/2016**

### **Master Petroleum Engineering and Operations A.A. 2015/2016**

#### **ENERGY ECONOMICS AND SUSTAINABILITY MODULE**

##### *Programme*

##### The energy picture

- Introduction
- Historical trends and best-fit curves
- The Energy demand forecast formula
- Energy data sources
- Energy indicators

##### The energy supply

- Energy resources
- Energy mixes
- Energy corridors

##### Security of supply and modelling

- Geopolitical indicators
- Energy modelling

##### The sustainability concept

- Sustainability in the oil&gas sector
- Energy and sustainability metrics: LCA

##### Coupling economics and sustainability

- LCA - Some fundamentals
- The 4 phases
- Case studies
- Externalities

#### **Notes**

This is a tentative programme over the five days.

Exercises, both explained by the teacher and solved by the students, can be provided for virtually all of the topics.

No homework will be asked during the week.

Comprehensive references will be provided for self extra preparation. No written notes are foreseen. The updated slides shown during the lectures will be made available to the students day by day.