

**UNIVERSITATEA "POLITEHNICA" DIN BUCUREȘTI**  
**Facultatea de Energetică - Facultatea de Inginerie în Limbi Străine (FILS)**

Program de MASTER: **ENERGY ENGINEERING**

**Date generale**

Coordonator de Program: **Prof. Corneliu Bălan**

Domeniul de Studiu: **Inginerie Energetică**

Program de studiu: **Energy Engineering**

Program de masterat: **interdisciplinar**

Locația: **București**

Universitate: **Universitatea Politehnica din București/**

**Facultatea de Energetică - Facultatea de Inginerie în Limbi Străine (FILS)**

Limba de predare: **Engleză**

Forma de Învățământ: **IF**

Nr. credite de studiu transferabile: **120**

An universitar: **2015-2016**

**PLANUL DE ÎNVĂȚĂMÂNT**

**An I - Semestrul I:**

| NR.           | Disciplină  | Semestrul I - 14 săptămâni |   |   |   |           | Evaluare (E/V/P) |
|---------------|---|----------------------------|---|---|---|-----------|------------------|
|               |   | C                          | S | L | P | PC        |                  |
| I1            | Renewable Energies, Energy Scenarios and Climate Protection | 2                          | 0 | 0 | 0 | 3         | V                |
| I2            | Energy Technologies in Mechanical Engineering               | 2                          | 0 | 1 | 0 | 4         | E                |
| I3            | Chemistry and Material Science for Energy Engineering       | 2                          | 0 | 2 | 0 | 4         | E                |
| I4            | Electrical Engineering and Information Technologies         | 2                          | 0 | 0 | 0 | 3         | E                |
| I5            | Energy Finance  | 2                          | 0 | 0 | 0 | 3         | V                |
| I6            | Continuum Mechanics and Thermodynamics                      | 2                          | 1 | 0 | 0 | 3         | E                |
| I7            | Scientific research   | 12h/săp.                   |   |   |   | 10        | P                |
| Ore/săptămână |   | 12                         | 1 | 3 | 0 |           |                  |
|               |   | <b>28</b>                  |   |   |   | <b>30</b> |                  |

**An I - Semestrul II:**

| NR.           | Disciplină  | Semestrul II - 14 săptămâni |   |   |   |           | Evaluare (E/V/P) |
|---------------|---|-----------------------------|---|---|---|-----------|------------------|
|               |   | C                           | S | L | P | PC        |                  |
| II1           | Modelling turbulent flows and heat transfer               | 2                           | 0 | 2 | 0 | 4         | E                |
| II2           | Energy Technologies in Buildings – Smart Buildings        | 2                           | 0 | 0 | 0 | 3         | E                |
| II3           | Energy systems I (classical energy and low emissions)     | 2                           | 0 | 1 | 0 | 4         | E                |
| II4           | Energy systems II (regenerative energy)                   | 2                           | 0 | 1 | 0 | 3         | E                |
| II5           | Energy Supply and Environmental Protection                | 2                           | 0 | 0 | 0 | 3         | V                |
| II6           | Environmental and economical aspects of energy conversion | 2                           | 0 | 0 | 0 | 3         | V                |
| II7           | Interdisciplinary research project                        | 12h/săp.                    |   |   |   | 10        | P                |
| Ore/săptămână |   | 12                          | 0 | 4 | 0 |           |                  |
|               |   | <b>28</b>                   |   |   |   | <b>30</b> |                  |

| NR.           | Disciplină   | Semestrul III - 14 săptămâni |   |   |   |    | Evaluare<br>(E/V/P) |
|---------------|--|------------------------------|---|---|---|----|---------------------|
|               |  | C                            | S | L | P | PC |                     |
| III1          | Electrochemistry   | 2                            | 0 | 1 | 0 | 4  | E                   |
| III2          | Chemical kinetics  | 2                            | 0 | 1 | 0 | 4  | E                   |
| III3          | Electro-chemistry in energy applications – storage devices   | 2                            | 0 | 1 | 0 | 3  | V                   |
| III4          | Electro-chemistry in energy applications – converter devices | 2                            | 0 | 1 | 0 | 4  | E                   |
| III5          | Material science of thin films and Rheology                  | 2                            |   | 2 |   | 5  | E                   |
| III6          | Scientific research  | 12h /săp.                    |   |   |   | 10 | P                   |
| Ore/săptămână |  | 10                           | 0 | 6 | 0 |    |                     |
|               |  | 28                           |   |   |   | 30 |                     |

**An II – Semestrul IV**

| Code              | Disciplină                        | Semestrul IV – 14 săptămâni |   |   |   |    | Evaluare<br>(E/V/P) |
|-------------------|-----------------------------------|-----------------------------|---|---|---|----|---------------------|
|                   |                                   | C                           | S | L | P | PC |                     |
| UPB.05.S.12.O.021 | Scientific research master thesis | 28 h/săp.                   |   |   |   | 30 | P                   |
|                   | Exam                              |                             |   |   |   | 10 | E                   |

| Activities          | C  | S | L  | P | Σ   | PC  |
|---------------------|----|---|----|---|-----|-----|
| Teaching            | 34 | 1 | 13 | 0 | 48  | 60  |
| Research            |    |   |    |   | 36  | 30  |
| Thesis              |    |   |    |   | 28  | 30  |
| Exam thesis defence |    |   |    |   |     | 10  |
| Total               |    |   |    |   | 112 | 130 |

**Rector,  
Mihnea Costoiu**

**Decan FILS,  
Prof.dr.ing. Adrian Volceanov**

**Decan Facultatea de Energetică,  
Prof.dr.ing. Constantin Bulac**

**Director Program,  
Prof.dr.ing. Corneliu Bălan**