COURSE GUIDE – short form

Academic year 2018 - 2019

| Course name ¹ | NANOSTRUCTURED MATERIALS BY SEVERE PLASTIC DEFORMATION | | | C discij | Codul olinei | 1 MATAE 03 | | |
|--------------------------|---|-----------------------|----|---------------|-----------------|------------|---|----------------------------------|
| Course type ² | DS | Category ³ | DI | Year of study | 1M | Semester | 1 | Number of credit points 6 |

| Faculty | Material Science and Engineering | Number of teaching and learning hours ⁴ | | | | | |
|----------------|----------------------------------|--|----|---|----|---|----|
| Field | Materials Engineering | Total | L | Т | LB | Р | IS |
| Specialization | MATAE | 150 | 28 | - | 28 | - | 94 |

| Pre-requisites from the | Compulsory | Theoretical basis of plastic deformation |
|-------------------------|-------------|--|
| curriculum ⁵ | Recommended | |

| General objective ⁶ | Communication of new knowledge in the field of high performance materials for new products and processes by integrating nanotechnology Top-Down (severe plastic deformation) and nanostructured materials in existing processes |
|----------------------------------|---|
| Specific objectives ⁷ | Knowledge and application of technologies and nanostructuring by severe plastic deformation analysis of the effects on the properties induced by ultrafined grain |
| Course description ⁸ | Top-Down nanotechnologies for obtaining nanostructured materials - severe plastic deformation (DPS); Characterization of nanostructured materials / CLASS finished; Finishing and structural stability obtained by DPS. |

| Assessment | | Schedule ⁹ | | Percentage of the final grade (minimum grade) ¹⁰ | |
|--|--|-----------------------|-------------|---|--|
| | Class tests along the semester | | week 10 | | |
| | Home works | % | | | |
| A. Final | Other activities | % | week | 50 0/ | |
| assessment form ¹¹ exam | Examination procedures and conditions: 1. Subject with closed questions, working conditions oral, percent 50 %; 2. Subject with open questions, working conditions oral, percent 50 %; | 50 % (minimum 5) | exam period | 50 % (minimum 5) | |
| B. Seminar | % (minimum 5) | | | | |
| C. Laboratory | 50 % (minimum 5) | | | | |
| D. Project | % (minimum 5) | | | | |

| Course organizer | prof.dr.eng. Radu COMĂNECI | |
|---------------------|----------------------------|--|
| Teaching assistants | prof.dr.eng. Radu COMĂNECI | |

¹Course name from the curriculum

² DF – fundamental, DD – in the field, DS – specialty, DC – complementary (from the curriculum)

³ DI – imposed, DO –optional, DL – facultative (from the curriculum)

⁴ Points 3.8, 3.5, 3.6a,b,c, 3.7 from the Course guide – extended form (L-lecture, T-tutorial, LB-laboratory works, P-project, IS-individual study)

⁵ According to 4.1 – Pre-requisites - from the Course guide – extended form

⁶ According to 7.1 from the Course guide – extended form

⁷ According to 7.2 from the Course guide – extended form

⁸ Short description of the course, according to point 8 from the Course guide – extended form

 $^{^{9}}$ For continuous assessment: weeks 1 – 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

¹⁰ A minimum grade might be imposed for some assessment stages ¹¹ Exam or colloquium