COURSE GUIDE – short form

Academic year 2017 - 2018

| Course name ¹ | TECHNIQUES FOR SIMULATION OF THERMO-GAZ-DYNAMICS PROCESSES | | | | Codul disciplinei | | | 5 TAIPM 05 | | |
|--------------------------|---|-----------------------|----|---------------|-------------------|----------|---|---------------|------------------------|---|
| Course type ² | DS | Category ³ | DI | Year of study | 1M | Semester | 1 | | umber of dit points | 6 |

| Faculty | Material Science and Engineering Number | | ber of | f teaching and learning hours ⁴ | | | |
|----------------|---|-------|--------|--|----|---|----|
| Field | Materials Engineering | Total | L | Т | LB | Р | IS |
| Specialization | TAIPM | 42 | 14 | - | 28 | - | |

| Pre-requisites from the curriculum ⁵ | Compulsory | - |
|---|-------------|---|
| | Recommended | - |

| General objective ⁶ | Development of profesional and transversal competences in regard to apply numerical techniques to thermal-gaz-dynamics processes |
|----------------------------------|---|
| Specific objectives ⁷ | Development of integration capacity of knowledge based in regard to solve some complex technical issues specific to engineering area Development of innovation capacity due to rapid change in the market Development of auto-evaluation capaciyu in regard to successful integration in labor market Defining concepts, theories and basic methods using CFD techniques Usage of basic knowledge in numerical simulation of heat and mass transfer processes |
| Course description ⁸ | CFD simulation, mesh creation, boundary conditions |

| | Assessment | Schedule ⁹ | Percentage of the final grade (minimum grade) ¹⁰ | |
|---|---------------------------------------|-----------------------|---|---------------------|
| | Class tests along the semester - week | | % | |
| Continuous Activity during tutorials/laboratory assessment works/projects/practical work | | | | 50 % |
| Assignments - | | | week | % |
| | Final assessment form ¹¹ | colloquium | week 14 | |
| Final assessmentExamination procedures and conditions: 1. Subject with open questions ; tasks thematic approad conditions oral; percent 100 %; | | | ach ; working | 50 % (minimum 5) |

| Course organizer | prof.dr.habil.ing. Alina Adriana MINEA | |
|---------------------|--|--|
| Teaching assistants | sef lucr.dr.ing. Mirabela Minciuna | |

¹Course name from the curriculum

² DF – fundamental, DID – 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