## COURSE GUIDE – short form

Academic year 2017-2018

| Course name <sup>1</sup> | HEAT TREATMENTS |                       |    |               | Course | e 3ISI13E | 3ISI13DID |                               |   |
|--------------------------|-----------------|-----------------------|----|---------------|--------|-----------|-----------|-------------------------------|---|
| Course type <sup>2</sup> | DID             | Category <sup>3</sup> | DO | Year of study | 3      | Semester  | 6         | Number of<br>credit<br>points | 3 |

| Faculty        | Material Science and Engineering | Number of teaching and learning hours <sup>4</sup> |    |   | ning |   |    |
|----------------|----------------------------------|--|----|---|------|---|----|
| Field          | Industrial Engineering           | Total  | L  | Т | LB   | Ρ | IS |
| Specialization | Safety Engineering in Industry   | 84   | 28 | - | 28   | - | 28 |

| Pre-requisites from the curriculum <sup>5</sup> | Compulsory  | Not the case |
|---|-------------|--------------|
|   | Recommended | Not the case |

| General<br>objective <sup>6</sup>   | Developing of knowledge, thinking and technical and practical training in the field of heat treatments, in order to understand their necessity in the technological processes and the applicable principles in order to complete the general training in the field of industrial engineering.                                    |
|-------------------------------------|--|
| Specific<br>objectives <sup>7</sup> | Knowledge of the main types of thermal treatments encountered in industrial practice, technological parameters, their use and their understanding from the perspective of potential risk.  |
| Course<br>description <sup>8</sup>  | Purpose of heat treatments, equilibrium diagrams, thermal parameters and specific temporal for<br>heat treatments and thermochemical technologies, primary thermal treatment technology, steel<br>quenching technology, martensitic hardening technology; shallow hardening, annealing<br>technology, thermochemical treatments. |

|                       | Assessment   | Schedule <sup>9</sup> | Percentage of the final<br>grade (minimum<br>grade) <sup>10</sup> |      |
|-----------------------|--|-----------------------|---|------|
|                       | Class tests along the semeste  | r                     |   | %    |
| Continuous assessment | Activity during tutorials/laborat<br>works/projects/practical work   | continuous            | 50 %  |      |
|                       | Assignments  |                       | -   | %    |
| Final<br>assessment   | Final assessment form <sup>11</sup>  | colloquium            | Wk 14   |      |
|                       | <ul><li>Examination procedures and conditions:</li><li>1. Oral examination: two closed questions; equal weight</li></ul> |                       |   | 50 % |

| Course organizer    | Lecturer Ph.D.Eng. Carmen Nejneru |  |
|---------------------|-----------------------------------|--|
| Teaching assistants | Lecturer Ph.D.Eng. Carmen Nejneru |  |

<sup>&</sup>lt;sup>1</sup>Course name from the curriculum

<sup>11</sup> Exam or colloquium

 $<sup>^{2}</sup>$  DF – fundamental, DID – in the field, DS – specialty, DC – complementary (from the curriculum)

<sup>&</sup>lt;sup>3</sup> DI – imposed, DO –optional, DL – facultative (from the curriculum)

<sup>&</sup>lt;sup>4</sup> 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)

 $<sup>\</sup>frac{1}{5}$  According to 4.1 – Pre-requisites - from the Course guide – extended form

<sup>&</sup>lt;sup>6</sup> According to 7.1 from the Course guide – extended form

<sup>&</sup>lt;sup>7</sup> According to 7.2 from the Course guide – extended form

<sup>&</sup>lt;sup>8</sup> Short description of the course, according to point 8 from the Course guide – extended form

 $<sup>^9</sup>$  For continuous assessment: weeks 1 - 14, for final assessment – colloquium: week 14, for final assessment-exam: exam period

<sup>&</sup>lt;sup>10</sup> A minimum grade might be imposed for some assessment stages