

COURSE GUIDE – short form

Academic year 2024-2025

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|--------------------------|-------------------------------------|-----------------------|----|---------------|---|-------------|------------|-------------------------|---|--|
| Course name ¹ | WELDING MATERIALS TECHNOLOGY | | | | | Course code | 3ISI12DD-2 | | | |
| Course type ² | DID | Category ³ | DO | Year of study | 3 | Semester | 6 | Number of credit points | 3 | |

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|----------------|--------------------------------------|--|----|---|----|---|----|
| Faculty | Science and Engineering of Materials | Number of teaching and learning hours ⁴ | | | | | |
| Field | Industrial Engineering | Total | L | T | LB | P | IS |
| Specialization | Safety Engineering in Industry | 75 | 28 | | 28 | | 19 |

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

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| General objective ⁶ | Developing analysis/selection/synthesis abilities concerning various welding situations. Capability to identify / estimate related process risks on short/long term. |
| Specific objectives ⁷ | <ul style="list-style-type: none"> • Knowledge of different welding processes, their appliance domain, work parameters, specific hazardous. • Specific phenomena and security/hygiene issues that arise. • Peculiarities of different technical solutions on immediate or long term risk level. |
| Course description ⁸ | Joining solutions (common welding processes and some relative rare processes), soldering, brazing: domains of appliance and limits, working parameters, parameters selection criteria. Specific effects of the welding processes on the work environment. Specific welding processes risks and safety procedures. |

| Assesment | | | Schedule ⁹ | Percentage of the final grade (minimum grade) ¹⁰ |
|---|--|-------------------|-----------------------|---|
| A. Final assessment form ¹¹ : COLLOQUIUM | Class tests along the semester | % | - | 50 % (minimum 5) |
| | Home works | % | - | |
| | Other activities | % | - | |
| | Examination procedures and conditions: Probe 1: Theoretical close ended questions, working conditions- ORALLY; Probe 2: Open ended questions, working conditions- ORALLY; Probe 3: Selecting one/ couple of welding processes for a given joining case, argued, ORALLY. | 20% 30% 50% | 14 th week | |
| B. Seminar | Activity during seminar | | | % (minimum 5) |
| C. Laboratory | Activity during laboratory | | | 50 % (min. 5) |
| D. Project | Activity during project | | | % (minimum 5) |

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| Course organizer | Lecturer Phd. Eng. Diana Antonia GHEORGHIU | |
| Teaching assistants | Lecturer Phd. Eng. Mihai POPA | |

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