COURSE SYLLABUS Computer aided engineering for automotive applications UP.02.DAP.3.O.21.22-AI

| 1. | F | Program information | n in the second s | | | | | | | | | |
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| 1.1 Higher education institution | | | | The | The National University of Science and Technology POLITEHNICA | | | | | | | |
| | | | | | Buc | Bucharest, Pitești University Centre | | | | | | |
| 1.2 | 2 Faculty | | | | Me | chanics and | lechno | logy | | | | |
| 1.3 | .3 Department | | | | Aut | omobiles an | id Trans | sport | | | | |
| 1.4 | .4 Field of studies | | | | Aut | omotive Eng | gineerin | g | | | | |
| 1.5 | 5 Cycle of studies | | | Ma | ster | | . (| | NA - 1- 11:4 - | | | |
| 1.6 | 6 Program of study / Qualification | | | | Aut | omotive Eng | gineerin | g for Sust | ainable | e iviodility | | |
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| 5 | | Conditions (where a | nnlicable) | | | ngines | | | | | | |
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| | Introduction in Computational Fluid Dynamics | 2 | - Explication | sheets, photos, |
|---|--|----|-----------------|-----------------|
| 2 | | | - Description | models, video |
| 2 | | | and | projector, |
| | | | exemplification | computer, |
| 3 | Discretization of the calculation domain | 2 | - The heuristic | internet |
| 4 | Intake manifold. AVL Fire | 4 | conversation | |
| 5 | FAME_Hexa_Cooling_Jacket. AVL Fire | 2 | - Debate | |
| | Intake_Port. AVL Fire | 4 | - State the | |
| 6 | | | problem | |
| | | | -Exercise | |
| 7 | Car aerodynamics. AVL Fire | 4 | | |
| 8 | In-cylinder engine. AVL Fire | 8 | | |
| | TOTAL HOURS | 28 | | |

Minimal bibliography:

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14. AVL Fire Exemples

9.Corroboration the contents of the discipline with the expectations of the epistemic community representatives, professional associations and employers in the field related to the program

The skills acquired in this discipline allow the graduates to work in the field of automotive engineering: design, calibration, test, homologation of thermal engines and automobiles. Being a specialized discipline, its purpose is to training students, especially for engineering centers (design, research, development).

9. Evaluation

| Activity type | 10.1 Evaluation Criteria | 10.2 Evaluation methods | 10.3 Percentage of the final grade |
|--|--|---|------------------------------------|
| | Presence at activity | | 10% |
| | Active involvement during the lectures | Weekly recording | 20% |
| 10.4 Project | Good understanding of the treated subjects and the ability to analyze and synthesize, final evaluation | Oral exam | 30% |
| | | | |
| 10.5 Homework | Correct resolution. Quality of presentation | Oral presentation. Individual discussions | 40% |
| 10.6 Minimum standard of performance | - minimum 50% activ participation in ea | ich periodic activity | |

Date (of filling) 20.09.2023 Instructor (project) lecturer phd IORGA-SIMĂN Victor Jorga U.

Date (of approval) 29.09.2023 Director of supplying department ... Helene BĂDĂRĂU-ŞUSTER

Stust -

Director of beneficiary department lecturer phd. Helene BÅDÅRÅU-ŞUSTER

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