

| Add. 3 | | Course program for the first, second and third level (cycle) of studies | | | |
|--------|--|--|------------------------|---------------|-----------|
| 1. | Course title | Heat transfer | | | |
| 2. | Code | 255 | | | |
| 3. | Study group(s) | TE | | | |
| 4. | The organizer of the study program (unit, institute, department) | Faculty of Mechanical Engineering - Skopje, Ss. Cyril and Methodius University in Skopje | | | |
| 5. | Level (first, second, third) | First | | | |
| 6. | Academic year / semester | winter | 7. | ECTS credits | |
| 8. | Instructor | Assistant Professor Filip Mojsovski, Ph.D. | | | |
| 9. | Prerequisites | no | | | |
| 10. | Course objectives (competences): Study of the transport phenomena, Thermal conduction, Thermal convection, Thermal radiation and heat exchangers, Selection, estimation and perfection of heat exchanger | | | | |
| 11. | Course content: Thermal conduction, Thermal convection, Thermal radiation, Heat exchangers, Effectiveness of heat exchangers, Classification of heat exchangers, Tube heat exchangers, Plate heat exchangers, Heat exchanger with extended surface, Regenerative heat exchangers, Documentation for heat exchangers, Designing of heat exchangers | | | | |
| 12. | Study methods: Interactive teaching, exercises, single-handed lessons | | | | |
| 13. | Total hours | 6 ECTS x 30 = 180 classes | | | |
| 14. | Hours allocation per activity: | 30 + 30 + 30 + 30 + 60 = 180 classes | | | |
| 15. | Lectures/Lab | 15.1. | Lectures | 30 | |
| | | 15.2. | Lab (student work) | 30 | |
| 16. | Project Work/Assignments | 16.1. | Project assignments | 30 | |
| | | 16.2. | Individual assignments | 30 | |
| | | 16.3. | Self-study | 60 | |
| 17. | Points/Marks: | | | | |
| | 17.1. | Tests | | | 70 points |
| | 17.2. | Projects | | | 20 points |
| | 17.3. | Attendance | | | 10 points |
| 18. | Grading scale | Under 50 | | 5 (five) (F) | |
| | | 51 - 60 points | | 6 (six) (E) | |
| | | 61 - 70 points | | 7 (seven) (D) | |
| | | 71 - 80 points | | 8 (eight) (C) | |
| | | 81 - 90 points | | 9 (nine) (B) | |
| | | 91 - 100 points | | 10 (ten) (A) | |
| 19. | Prerequisites for taking the final exam | no | | | |
| 20. | Language of Instruction | Macedonian language | | | |
| 21. | Course evaluation | Surveys and other forms of continuous evaluation | | | |

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| 22. | Textbooks | | | | |
| | 22.1. | Instruction materials | | | |
| | | No. | Author | Title | Publisher |
| | 1. | A. Mojsovski | Heat transfer | Ss. Cyril and Methodius University - Skopje | 1992 |

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|--|-------|------------------------------------|--------|---|----------------------|------|
| | | 2. | | | | |
| | | 3. | | | | |
| | | Supplemental Instruction Materials | | | | |
| | 22.2. | No. | Author | Title | Publisher | Year |
| | | 1. | | ASHRAE Handbook of HVAC Systems and Equipment | ASHRAE, Atlanta, USA | 2008 |