| *Title of the course:* **Mathematics I.** | *NEPTUN-code:* NMXAN1EBNE | *Weekly teaching hours: l+cw+lb* 3+3+0 | *Credit*: 6 *Exam type*: e examination |
|---|---|---|---|
| *Course leader:* Aurél Galántai PhD | *Position:* professor | *Required preliminary knowledge:* - | |

| *Curriculum* |
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| The goals of this course are: introduction of basic concepts of the real line, the complex plane and the three-dimensional space; development of differential and integral calculus with the help of the concepts of sequences, real functions, convergence and continuity to the level of practical applicability in further engineering / mechanical / physical studies. Introduction to the application of program MatLab. |

| *Professional competencies:* |
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| – The student knows the general and specific mathematical principles, rules, correspondences and methods used in light industry engineering. <br> – Familiar with the learning methods and problem solving technics used in light industry engineering. <br> – He/she is able to demonstrate clearly the mathematical results, principles and their consequences. |

| *Literature* |
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| 1. Thomas – Weir – Hass: Thomas' Calculus, 13e, Pearson, 2013. |
| 2. Anton – Bivens – Davis: Calculus, 10e, Wiley, 2012. |
| 3. Anton – Rorres: Elementary Linear Algebra, 11e, Wiley, 2013. |
| Comment: |