| 1. Course (module) name | 2. Code |
| :---: | :---: |
| Business Mathematics and Statistics |  |

3. Lecturer (s)
4. Division(s)

| 5. Cycle of studies | 6. Course (module) level | 7. Course (module) type |
| :---: | :---: | :---: |
| First | Course is not divided into parts | Mandatory |
|  |  |  |
| 8. Delivery form | 9. Delivery period | 10. Delivery language (s) |
| Full-time | Semester 3 | English |
|  |  |  |
| 11. Requirements for students |  |  |
| Preliminary requirements: | Associated requirements (if any): |  |
| - |  | - |


| 12. Scope of course <br> (module) in ECTS credits | 13. Full workload of a <br> student (hours) | 14. Contact work hours | 15. Independent work <br> hours |
| :---: | :---: | :---: | :---: |
| 6 | 160 | 40 | 120 |

## 16. Course (module) purpose: competences developer by the course program

This course introduces students to the mathematical concepts and applications necessary for successful business careers. The course includes topics as linear and non-linear equations, differentiation and matrix calculations.

| 17. Relation of the course targets with the expected results of studies and evaluation methods of studies and student achievement |  |  |  |
| :---: | :---: | :---: | :---: |
| Results (targets) of the course | Results of the course | Methods of studies | Evaluation methods of academic achievements |
| Students have to acquire and apply analytical, creative and critical thinking skills in order to operate successfully in various fields of aviation management. | Students will be able to: <br> - Solve simultaneous linear equations graphically and algebraically <br> - Solve a system of two simultaneous linear equations in two unknowns <br> - Determine the equilibrium price and quantity for a multi commodity market by <br> - solving simultaneous linear equations <br> - Solve and sketch quadratic equations <br> - Use the natural logarithm function to solve equation <br> - Differentiate <br> - Evaluate and interpret second-order derivatives <br> - Represent a system of linear equations in matrix notation <br> - Use matrix inverses to solve systems of linear equations arising in economics. | Group discussions, lectures, lots of practice. The objective is to promote the understanding of mathematic concepts and to enable students to apply them in a meaningful way. <br> Students are encouraged to rely on logical thinking, rather than on memorization. | 3 tests during the course and the final exam. |


| 18. Strategy and criteria of student assessment |  |  |  |
| :--- | :---: | :---: | :--- |
| Assessment method | Per cent | Delivery time | Evaluation criteria |
| Tests | 45 | $3 \times 20 \mathrm{~min}$. | Short test covering discussed topics. Each test delivers up <br> to 15 points. Only one test can be retaken at the end of <br> the course. Graphical and algebraic solutions will be <br> required. Tests are unannounced. |
| Exam | 55 | 90 min. | Exam covers all topics discussed in lectures and <br> independent work. Graphical and algebric solutions will <br> be required. Exam delivers 55 points. |

