

Content

| Course Code | Course Name | Semester | Theory | Practice | Lab | Credit | ECTS |
|-------------|---------------|----------|--------|----------|-----|--------|------|
| SOC161 | Mathematics I | 1 | 2 | 0 | 0 | 2 | 4 |

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| Prerequisites | |
| Admission Requirements | |

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| Language of Instruction | French |
| Course Type | Compulsory |
| Course Level | Bachelor Degree |
| Objective | <p>The course objective is to give to the student basic knowledge on,</p> <ul style="list-style-type: none">• Sets, operations with sets,• Relations and functions,• Calculations with reel numbers,• Polynomials• The course also aims to give to the student mathematical knowledge necessary for following up the course of statistics in second year. |
| Content | <p>1) Sets, operations with sets.</p> <p>2) Relations and functions.</p> <p>3) Calculations with real numbers, absolute value, equations and inequalities containing absolute value.</p> <p>3) Integer and real power of real numbers.</p> <p>4) Polynomials and factorization polynomials.</p> <p>5) Quadratic equations .</p> <p>6) Quadratic equations, inequalities and polynomials, sign of the quadratic polynomials.</p> <p>7) Linear and quadratic functions and parabola.</p> <p>8) Exponential and logarithm functions.</p> |
| References | |

Theory Topics

| Week | Weekly Contents |
|------|---|
| 1 | Sets, operations with sets. |
| 2 | Sets, operations with sets. |
| 3 | Relations and functions. |
| 4 | Functions. |
| 5 | Calculations with real numbers, absolute value, equations and inequalities containing absolute value. |
| 6 | Integer and real power of real numbers. |
| 7 | Polynomials and factorization of polynomials . |
| 8 | Factorization of polynomials. |
| 9 | Quadratic equations. |
| 10 | Mid-term Exam. |
| 11 | Quadratic equations, inequalities and polynomials, sign of the quadratic polynomials. |
| 12 | Quadratic equations, inequalities and polynomials, sign of the quadratic polynomials. |
| 13 | Linear and quadratic functions and parabola. |
| 14 | Exponential and logarithm functions. |