| CALCULUS II (INTEGRAL CALCULATIONS) | | | | | | | | | | | |
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| 1 | Course Title: CALCULUS II (INTEGRAL CALCULATIONS) | | | | | | | | | | |
| 2 | Course Code: | MAT1072 | | | | | | | | | |
| 3 | Type of Course: | Compuls | sory | | | | | | | | |
| 4 | Level of Course: | First Cyc | le | | | | | | | | |
| 5 | Year of Study: | 1 | | | | | | | | | |
| 6 | Semester: | 2 | | | | | | | | | |
| 7 | ECTS Credits Allocated: | 6.00 | | | | | | | | | |
| 8 | Theoretical (hour/week): | 3.00 | | | | | | | | | |
| 9 | Practice (hour/week): | 2.00 | | | | | | | | | |
| 10 | Laboratory (hour/week): | 0 | | | | | | | | | |
| 11 | Prerequisites: | There are no prerequisites. | | | | | | | | | |
| 12 | Language: | Turkish | | | | | | | | | |
| 13 | Mode of Delivery: | Face to f | ace | | | | | | | | |
| 14 | Course Coordinator: | Doç.Dr. | ESEN İYİGÜN | | | | | | | | |
| 15 | Course Lecturers: | Prof.Dr.Kadri Arslan Yrd.Doç.Dr.Sezayi Hızlıyel | | | | | | | | | |
| 16 | Contact information of the Course Coordinator: | e-mail: esen@uludag.edu.tr phone: 0.224.2941766 address: Uludağ University, Art and Science Faculty, Department of Mathematics,16059, Bursa. | | | | | | | | | |
| 17 | Website: | | | | | | | | | | |
| 18 | Objective of the Course: | The aim of the course is to make the students gain the basic subjects of mathematics, to teach the notions of integrals, techniques of integration, applications of integration, further applications of integration, sequences, series and the related notions. | | | | | | | | | |
| 19 | Contribution of the Course to Professional Development: | | | | | | | | | | |
| 20 | Learning Outcomes: | | | | | | | | | | |
| | | 1 | Data detection, evaluation and use the data on suitable places for problems | | | | | | | | |
| | | 2 | The students learn what does integral mean, how to calculate an integral and applications of integration. | | | | | | | | |
| | | 3 | The students know how to solve a problem. | | | | | | | | |
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| 21 | Course Content: | <u> </u> | ourse Content: | | | | | | | | |
| Week | Theoretical | | Practice | | | | | | | | |
| 1 | The indefinite integral and continuou | s | Problems solving. | | | | | | | | |
| | functions. | 0 | n robiento solving. | | | | | | | | |

| 2 Upper and lower sums and the fundamental theorems. Problems solving. 3 Definite integral and Riemann sums. Problems solving. 4 Inequalities and improper integrals. Problems solving. 5 Substitution, integration by parts and partial regrals. Problems solving. 6 Trigonometric integrals, binomial integrals, exponential substitutions. Problems solving. 7 Account the length of the curve and volume calculation. Problems solving. 7 Account the length of the curve and volume calculation. Problems solving. 8 Midtern Exam-Repeating courses. Problems solving. 9 Area and volume calculation of surfaces of revolution. Problems solving. 10 Account trave and arc length in polar coordinates Problems solving. 11 Sequences ve convergence of sequences. Problems solving. 12 Series, series with spositive terms, the ratio tast and taylor series. Problems solving. 13 Multiple integrals. Problems solving. Internation (hour) 14 Applications of multiple integrals. Problems solving. Internatind (hour) 144 <t< th=""><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></t<> | | | | | | | | | | | | | | | | | | | | |
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| Measurement and Evaluation Techniques Used in the Course Part Part Part Part Part Part Part Part | ECTS | Credit | of the C | ourse | | | | | | | | | | | | 6.00 | | | | |
| Course 24 ECTS / WORK LOAD TABLE 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16 ÖK1 0 4 4 0 5 0 0 3 0 <th>Total</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th>10</th> <th colspan="10">100.00</th> | Total | | | | | | | | 10 | 100.00 | | | | | | | | | | |
| 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16 ÖK1 0 4 4 0 5 0 0 3 0 <th></th> <th></th> <th>and Ev</th> <th>aluatio</th> <th>n Tec</th> <th>hnique</th> <th>s Use</th> <th>d in th</th> <th>e</th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> <th></th> | | | and Ev | aluatio | n Tec | hnique | s Use | d in th | e | | | | | | | | | | | |
| QUALIFICATIONS PQ1 PQ2 PQ3 PQ4 PQ5 PQ6 PQ7 PQ8 PQ9 PQ1 PQ11 PQ12 PQ1 PQ14 PQ15 PQ16 ÖK1 0 4 4 0 5 0 0 3 0 | 24 | ECT | S/WC | RKL | OAD |) TAB | LE | | | | | | | | | | | | | |
| ÖK1 0 4 4 0 5 0 3 0 | | | | | | | | | | | ME | | | | | | | | | |
| | | P | Q1 PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ1 0 | PQ11 | PQ12 | PQ1 3 | PQ14 | PQ15 | PQ16 | | | |
| ÖK2 4 4 0 0 4 0 0 3 0 0 0 0 0 0 0 0 0 0 | ÖK1 | 0 | 4 | 4 | 0 | 5 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | ÖK2 | 4 | 4 | 0 | 0 | 4 | 0 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |

| ÖK3 | 4 | 4 | 4 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--|-------|---|---|---|-------|---|---|----------|---|---|--------|---|---|-------------|---|---|--|
| LO: Learning Objectives PQ: Program Qualifications | | | | | | | | | | | | | | | | | |
| Contrib ution Level: | Ition | | | 2 | 2 low | | | 3 Medium | | | 4 High | | | 5 Very High | | | |