| ANALYSIS II | | | | | | | | | |
|-------------|---|--|---|--|--|--|--|--|--|
| 1 | Course Title: | ANALYS | IS II | | | | | | |
| 2 | Course Code: | MAT1002 | | | | | | | |
| 3 | Type of Course: | Compulsory | | | | | | | |
| 4 | Level of Course: | First Cycle | | | | | | | |
| 5 | Year of Study: | 1 | | | | | | | |
| 6 | Semester: | 2 | | | | | | | |
| 7 | ECTS Credits Allocated: | 8.00 | | | | | | | |
| 8 | Theoretical (hour/week): | 4.00 | | | | | | | |
| 9 | Practice (hour/week): | 2.00 | | | | | | | |
| 10 | Laboratory (hour/week): | 0 | | | | | | | |
| 11 | Prerequisites: | None | | | | | | | |
| 12 | Language: | Turkish | | | | | | | |
| 13 | Mode of Delivery: | Face to face | | | | | | | |
| 14 | Course Coordinator: | Prof. Dr. İSMAİL NACİ CANGÜL | | | | | | | |
| 15 | Course Lecturers: | Prof. Dr. Sibel YALÇIN TOKGÖZ, Prof. Dr. Osman BİZİM, Prof. Dr. Ahmet TEKCAN, Prof. Dr. Musa DEMİRCİ, Doç. Dr. Hacer ÖZDEN, Doç. Dr. Elif YAŞAR | | | | | | | |
| 16 | Contact information of the Course Coordinator: | E-posta: cangul@uludag.edu.tr Telefon: +90 224 2941756 Adres: Bursa Uludağ Üniversitesi Fen-Edebiyat Fakültesi Matematik Bölümü 16059 Görükle-Bursa-TÜRKİYE | | | | | | | |
| 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: | It supplies the fundamental notions necessary for all the courses in Analysis group. | | | | | | | |
| 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: | | | | | | | | |
| | | Co | urse Content: | | | | | | |
| Week | Theoretical | | Practice | | | | | | |
| 1 | Finding a primitive of a function, Deif Indefinite integral | inition of | Problems solving | | | | | | |

| 2 | Tech | niqu | es of | integra | ation | | | | Pro | Problems solving | | | | | | | |
|---|--|--|--------|----------|-------|----------|------------------------------|---|--------------------|------------------|----------|------|---------------------------|----------|-------|------|------|
| 3 | Tech | niqu | es of | integra | ation | | | | Pro | Problems solving | | | | | | | |
| 4 | Riem | nann | Sum | s and | Riema | ann Inte | egral | | Pro | oblems | s solvin | g | | | | | |
| 5 | Defin | Definite integral and its applications | | | | | Pro | Problems solving | | | | | | | | | |
| 6 | The fundamental theorem of Calculus (Integral). | | | | | Pro | Problems solving | | | | | | | | | | |
| 7 | Improper integral (Generalized Integral) | | | | | Pro | Problems solving | | | | | | | | | | |
| 8 | Midterm examination and general review | | | | | | | | | | | | | | | | |
| 9 | Arclength of a curve | | | | | | Pro | Problems solving | | | | | | | | | |
| 10 | Area of solids obtained by revolving regions | | | | | | Pro | Problems solving | | | | | | | | | |
| 11 | Volume of solids obtained by revolving regions | | | | | | Pro | Problems solving | | | | | | | | | |
| 12 | Sequences and Series | | | | | | Pro | Problems solving | | | | | | | | | |
| 13 | Taylor series | | | | | | Pro | oblems | s solvin | g | | | | | | | |
| 14 | Conv | /erge | ence o | of serie | es | | | | Pro | oblems | s solvin | g | | | | | |
| 22 | Textbooks, References and/or Other Materials: | | | | | | 1-/ Se Co 2-1 Pu | 1-A First Course in Calculus, Serge Lang, World Student Series Third Edition, Addison-Wesley Publishing Company. 2-Thomas Calculus, 11.Edition, Pearson Addison-Wesley Publishing Company -2005. | | | | | | | | | |
| 23 | Asse | sme | nt | | | | | | | | | | | | | | |
| Activites | | | | | | 1 | Number | | | Duration (hour) | | | Total Work Load (hour) | | | | |
| RHeore | tical | | | | | | 0 | | 0.9 | 0.90 | | 4.00 | | | 56.00 | | |
| Practica | Practicals/Labs | | | | | | 1 | 14 | | | 2.00 | 2.00 | | | 28.00 | | |
| Sinal Study and preperation 1 | | | | | | 60 | 60,00 | | | 8.00 | | | 104.00 | | | | |
| Homew | Homeworks | | | | | | | 0 | 0 | | | 0.00 | 0.00 | | 0.00 | | |
| Eentrije | Contribution of Term (Year) Learning Activities to | | | | | | | 40 | 40 ₀ 00 | | | 0.00 | | | 0.00 | | |
| Field St | Field Studies | | | | | | | 0 | 0 | | | 0.00 | | | 0.00 | | |
| Midtern | Induitori of Final Exam to Success Grade | | | | | | 00, | 0,00 | | | 10.00 | | | 10.00 | | | |
| Others | ers | | | | | | 2 | 2 | | | 10.00 | | | 20.00 | | | |
| MAAPER | asering t and Evaluation Techniques Used in the | | | | | | e wri | written exam | | | 20.00 | | | 20.00 | | | |
| Total W | Total Work Load | | | | | | 248 | | | | 248.00 | | | | | | |
| Total w | otal work load/ 30 hr | | | | | | | | | | | 7. | | | 7.93 | | |
| ECTS Credit of the Course | | | | | | | | | | | | | 8.00 | | | | |
| 25 CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS | | | | | | | | | | | | | | | | | |
| | P | 2Q1 | PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ1 0 | PQ11 | PQ12 | PQ1 3 | PQ14 | PQ15 | PQ16 |
| ÖK1 | 0 |) | 4 | 4 | 0 | 5 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK2 | 0 |) | 4 | 4 | 0 | 4 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK3 | 0 |) | 4 | 4 | 0 | 4 | 4 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | l | 0: L | earn | ning C | bjec | tive | s F | Q: P | rogra | m Qu | alifica | tions | ;; | | • |

| Contrib | 1 very low | 2 low | 3 Medium | 4 High | 5 Very High |
|---------|------------|-------|----------|--------|-------------|
| ution | | | | | |
| Level: | | | | | |