

REMOTE SENSING AND GIS IN LANDSCAPE PLANNING

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| 1 | Course Title: | REMOTE SENSING AND GIS IN LANDSCAPE PLANNING | |
| 2 | Course Code: | PYZ3008 | |
| 3 | Type of Course: | Compulsory | |
| 4 | Level of Course: | First Cycle | |
| 5 | Year of Study: | 3 | |
| 6 | Semester: | 6 | |
| 7 | ECTS Credits Allocated: | 3.00 | |
| 8 | Theoretical (hour/week): | 1.00 | |
| 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. Murat Zencirkiran | |
| 15 | Course Lecturers: | | |
| 16 | Contact information of the Course Coordinator: | Prof.Dr.Murat ZENCİRKIRAN Bursa Uludağ Üniversitesi Ziraat Fakültesi Peyzaj Mimarlığı Bölümü 16059 Görükle/Bursa Tel: 0 224 294 1482 Fax: 0 224 294 1637 e-posta: mzencirkiran@uludag.edu.tr | |
| 17 | Website: | | |
| 18 | Objective of the Course: | The aim of the course is to teach the concept of Remote Sensing, basic principles of remote sensing, recognition of satellite technologies and data, basic functions of GIS components and GIS systems, GIS database, GIS application areas, Geographic Information Systems Programs. | |
| 19 | Contribution of the Course to Professional Development: | | |
| 20 | Learning Outcomes: | | |
| | | 1 | To be able to understand the concept of remote sensing |
| | | 2 | To be able to learn GIS components and basic functions of GIS systems |
| | | 3 | To be able to comprehend GIS application areas |
| | | 4 | To be able to learn Geographical Information Systems Programs |
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| 21 | Course Content: | | |
| | | Course Content: | |
| Week | Theoretical | Practice | |

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| 1 | GIS definition, application area and components | Literature research |
| 2 | Map projection systems | Literature research |
| 3 | Raster and vector data representations, data structure topology at GIS | Literature research |
| 4 | Introduction to spatial analysis in CBS, point pattern analysis and statistical methods in GIS | Literature research, data collection |
| 5 | Linear analysis in GIS (network analysis) Surface analysis in GIS, topographic analysis | Evaluation of data |
| 6 | Surface analysis in GIS, topographic analysis, introduction of ArcGIS software | Evaluation of data |
| 7 | Interpolation techniques and geo-statistics application | Evaluation |
| 8 | Single-layer and multi-layer analyzes in GIS. | Data analysis and planning project implementation |
| 9 | Single-layer and multi-layer analyzes in GIS. | Data analysis and planning project implementation |
| 10 | Application project including digitization, distance analysis, registration, classification and database creation | Data analysis and planning project implementation |
| 11 | Environmental modeling, definition, components and types in GIS | Planning project implementation |
| 12 | Examples of environmental modeling in GIS | Planning project implementation |
| 13 | Examples of environmental modeling in GIS | Planning project implementation |
| 14 | GPS and its applications | Planning project implementation |
| 22 | Textbooks, References and/or Other Materials: | • Yomralıoğlu, T. 2002. Coğrafi Bilgi Sistemleri: Temel Kavramlar ve Uygulamalar. 479 s. Karadeniz Teknik Üniversitesi, Trabzon. Basılmamış ders notu, ders slaytları |
| 23 | Assesment | |
| TERM LEARNING ACTIVITIES | | NUMBER |
| Midterm Exam | | 1 |
| Quiz | | 0 |
| Home work-project | | 0 |
| Final Exam | | 1 |
| Total | | 2 |
| Contribution of Term (Year) Learning Activities to Success Grade | | 40.00 |
| Contribution of Final Exam to Success Grade | | 60.00 |
| Total | | 100.00 |
| Measurement and Evaluation Techniques Used in the Course | | |
| 24 | ECTS / WORK LOAD TABLE | |

| Activites | Number | Duration (hour) | Total Work Load (hour) |
|----------------------------|--------|-----------------|------------------------|
| Theoretical | 14 | 1.00 | 14.00 |
| Practicals/Labs | 14 | 2.00 | 28.00 |
| Self study and preperation | 6 | 3.00 | 18.00 |
| Homeworks | 0 | 0.00 | 0.00 |
| Projects | 0 | 0.00 | 0.00 |
| Field Studies | 0 | 0.00 | 0.00 |
| Midterm exams | 1 | 14.00 | 14.00 |
| Others | 0 | 0.00 | 0.00 |
| Final Exams | 1 | 14.00 | 14.00 |
| Total Work Load | | | 88.00 |
| Total work load/ 30 hr | | | 2.93 |
| ECTS Credit of the Course | | | 3.00 |

| 25 | CONTRIBUTION OF LEARNING OUTCOMES TO PROGRAMME QUALIFICATIONS | | | | | | | | | | | | | | | |
|---|---|-----|-----|--------------|-----|-----|-----------------|-----|-----|---------------|------|------|--------------------|------|------|------|
| | PQ1 | PQ2 | PQ3 | PQ4 | PQ5 | PQ6 | PQ7 | PQ8 | PQ9 | PQ10 | PQ11 | PQ12 | PQ13 | PQ14 | PQ15 | PQ16 |
| ÖK1 | 0 | 5 | 5 | 0 | 0 | 5 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK2 | 0 | 5 | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK3 | 0 | 5 | 5 | 0 | 0 | 4 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ÖK4 | 0 | 5 | 5 | 0 | 0 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| LO: Learning Objectives PQ: Program Qualifications | | | | | | | | | | | | | | | | |
| Contribution Level: | 1 very low | | | 2 low | | | 3 Medium | | | 4 High | | | 5 Very High | | | |