

THE MATERIAL PROBLEMS AND THEIR REMEDIES IN BUILDINGS

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| 1 | Course Title: | THE MATERIAL PROBLEMS AND THEIR REMEDIES IN BUILDINGS | |
| 2 | Course Code: | MIM3028 | |
| 3 | Type of Course: | Optional | |
| 4 | Level of Course: | First Cycle | |
| 5 | Year of Study: | 3 | |
| 6 | Semester: | 6 | |
| 7 | ECTS Credits Allocated: | 3.00 | |
| 8 | Theoretical (hour/week): | 2.00 | |
| 9 | Practice (hour/week): | 0.00 | |
| 10 | Laboratory (hour/week): | 0 | |
| 11 | Prerequisites: | - | |
| 12 | Language: | Turkish | |
| 13 | Mode of Delivery: | Face to face | |
| 14 | Course Coordinator: | Doç.Dr. ZEHRA SEVGEN PERKER | |
| 15 | Course Lecturers: | - | |
| 16 | Contact information of the Course Coordinator: | zsperker@uludag.edu.tr | |
| 17 | Website: | | |
| 18 | Objective of the Course: | The aim of this course is to teach that material problems in buildings, these principles and methods of problem identification and analysis of solution methods for solving the problems. | |
| 19 | Contribution of the Course to Professional Development: | This course contributes to professional development in solving the material problems in existing buildings and correct use of materials in new building design by providing recognition of building material problems and solution alternatives. | |
| 20 | Learning Outcomes: | | |
| | | 1 | Teaching material problems in buildings |
| | | 2 | Teaching material issues of design, structural systems, the application range of the sources of problems and solution methods use a holistic perspective |
| | | 3 | Teaching structures of materials of contemporary principles and methods used to analyze problems and identify problems with the materials referenced in the current methods of preventing and eliminating |
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| 21 | Course Content: | | |
| | | Course Content: | |
| Week | Theoretical | Practice | |
| 1 | The importance of structure, material, identification problems of material | | |

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| 2 | Classification of problems in structured materials | |
| 3 | Classification of problems in structured materials | |
| 4 | Principles underlying the structure of materials and methods used in analysis and detection of problems | |
| 5 | Natural stone building material used in removing problems, common problems and solution methods for the prevention | |
| 6 | Wood construction material used in removing problems, common problems and solution methods for the prevention | |
| 7 | Adobe construction material used in removing problems, common problems and solution methods for the prevention | |
| 8 | Brick construction material used in removing problems, common problems and solution methods for the prevention | |
| 9 | Concrete construction material used in removing problems, common problems and solution methods for the prevention | |
| 10 | Metal construction material used in removing problems, common problems and solution methods for the prevention | |
| 11 | Binding construction material used in removing problems, common problems and solution methods for the prevention | |
| 12 | Binding construction material used in removing problems, common problems and solution methods for the prevention | |
| 13 | Structure were the other materials (plastic, glass, bitumen and tar-based materials, etc.). common problems and solutions to problems in the methods used in the prevention | |
| 14 | Homeworks Presentation | |

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| 22 | Textbooks, References and/or Other Materials: | <p>Eriç, M., (1994). Yapı Fiziği ve Malzemesi, Literatür Yayıncılık, İstanbul.</p> <p>Günay, R. (2002). Geleneksel Ahşap Yapılar Sorunları ve Çözüm Yolları. Birsan Yayınevi, İstanbul.</p> <p>Küçükkaya, A.G. (2004). Taşların Bozulma Nedenleri Koruma Yöntemleri, Birsan Yayınevi, İstanbul.</p> <p>Sevük, F. (2001). Yapı Hasarları ve Hasarların İyileştirilmesi Üzerine Bir İnceleme, Doktora Tezi, Y.T.Ü., İstanbul.</p> <p>Toydemir, N., Gürdal, E., Tanaçan, L. (2000). Yapı Elemanı Tasarımında Malzeme, Literatür Yayıncılık, İstanbul.</p> <p>Weaver, E., Matero, F.G. (1997). Conserving Buildings Guide To Techniques And Materials. John Wiley & Sons Inc., US.</p> |
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| 23 | Assesment | | |
| TERM LEARNING ACTIVITIES | | NUMBE R | WEIGHT |
| Midterm Exam | | 1 | 20.00 |
| Quiz | | 0 | 0.00 |
| Homeworks, Performances | | 1 | 20.00 |
| Final Exam | | 1 | 60.00 |
| Total | | 3 | 100.00 |

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| 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 | When the number of students is below 20, absolute evaluation is applied, and when the number of students is above 20, the relative evaluation system is used. Course success is evaluated through the midterm exam (test), final exam (test) and homework. |

24 ECTS / WORK LOAD TABLE

| Activites | Number | Duration (hour) | Total Work Load (hour) |
|----------------------------|--------|-----------------|------------------------|
| Theoretical | 14 | 2.00 | 28.00 |
| Practicals/Labs | 0 | 0.00 | 0.00 |
| Self study and preperation | 14 | 2.00 | 28.00 |
| Homeworks, Performances | 1 | 20.00 | 20.00 |
| Projects | 0 | 0.00 | 0.00 |
| Field Studies | 4 | 2.00 | 8.00 |
| Midterm exams | 1 | 3.00 | 3.00 |
| Others | 0 | 0.00 | 0.00 |
| Final Exams | 1 | 3.00 | 3.00 |
| Total Work Load | | | 93.00 |
| Total work load/ 30 hr | | | 3.00 |
| 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 | 5 | 5 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| ÖK2 | 5 | 5 | 3 | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 5 | 0 | 0 | 0 | 0 | 0 |
| ÖK3 | 5 | 5 | 3 | 0 | 3 | 0 | 0 | 0 | 0 | 5 | 5 | 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 |
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