

COURSE DESCRIPTION FORM

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| Course Code and Name | DHF2462 Microscope Types Used in Dentistry |
| Semester of the Course | 1 |
| Course Content / Catalog Content | It focuses on the materials used in dentistry and the technical characteristics of the devices used in the microscopic evaluation of the tissues in the oral cavity, their usage areas, preparation of preparations and basic evaluation methods |
| Basic Textbook | Chiarini-Garcia, Hélio, Melo, Rossana Light Microscopy Methods and Protocols, Springer, 2011 Kuo, John Electron Microscopy Methods and Protocols Springer, 2014 |
| Auxiliary Textbooks | Suzanne Bell, Keith Morris An Introduction to Microscopy, October 21, CRC Press 2009 Terry D. Allen Ph.D. D.Sc. Introduction to Electron Microscopy for Biologists: Methods in Cell Biology: Volume 88 , Academic Press, 2008 |
| Course Credit (ECTS) | 3 |
| Course Prerequisites (Course attendance requirements should be specified in this article.) | Attendance is mandatory. |
| Course Type | Vocational / Technical Elective Course |
| Language of the Course | Turkish |
| Course Objectives and Goals | This course aims to teach the materials used in dentistry and the technical features and usage areas of the devices used in microscopic evaluation of the tissues in the oral cavity, the preparation of the preparations and the basic evaluation methods. |
| Learning Outcomes of the Course | <ol style="list-style-type: none"> 1. Understands the role of microscopic examination in dental practice 2. Understands how to examine the surface properties of dental materials. 3. Have information about the procedures to be done before the histopathological evaluation of intraoral lesions. 4. Have information about the types of microscopes used in dental research. |
| Course Format | Face-to-face lecture, question-answer, demonstration |
| Weekly Distribution of the Course | <ol style="list-style-type: none"> 1. Week Fundamentals of Light and Optics 2. Week Microscope Types, Working Principles and Ergonomics 3. Week Working Principles and Parts of Light Microscope 4. Week Preparation of Preparation for Light Microscope 5. Week Preparation Methods for Tooth and Periodontal Tissues 6. Week Polarized Light Microscopy 7. Week Passing (Transmission) Electron Microscope (TEM) 8. Week Sample Fixation and Preparation for TEM 9. Week Scanning Electron Microscope 10. Week Sample Fixation and Preparation for SEM 11. Week Fluorescence Microscopy 12. Week Confocal Microscopy 13. Week Light Microscopic Evaluation of Intraoral Tissues 14. Week Leisure time activities |

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| Teaching Activities <i>(The time spent for the activities mentioned here will determine the credit. It needs to be filled carefully.)</i> | Theoretical hours per week 2x14=28 Weekly practical lesson hour 1x13=13 Reading Activities 1x13=13 Internet browsing, library work 1x13=13 Midterm and midterm exam preparation 2x2=4 Final exam and preparation for the final exam 2x2=4 | | | | | | | | |
| Evaluation Criteria | | Number | Total Contribution (%) | | | | | | |
| | Midterm | 1 | 60 | | | | | | |
| | Homework | | | | | | | | |
| | Application | | | | | | | | |
| | Projects | | | | | | | | |
| | Practice | | | | | | | | |
| | Quiz | | | | | | | | |
| | Ratio of Periodic Studies to Success within the Year (%) | | | | | | | | |
| | Final Success Rate (%) | 1 | 40 | | | | | | |
| | Attendance Status | 2 | 100 | | | | | | |
| Course Workload | Activity | | Total Number of Weeks | Duration (Weekly Hours) | Total Workload at the End of the Term | | | | |
| | Theoretical lesson per week | | 14 | 2 | 28 | | | | |
| | Weekly practical lesson hours | | 13 | 1 | 13 | | | | |
| | Reading Activities | | 13 | 1 | 13 | | | | |
| | Internet browsing, library work | | 13 | 1 | 13 | | | | |
| | Material design, application | | | | | | | | |
| | Report preparing | | | | | | | | |
| | Preparing the presentation | | | | | | | | |
| | Presentation | | | | | | | | |
| | Midterm and midterm exam preparation | | 2 | 2 | 4 | | | | |
| | Final exam and preparation for the final exam | | 2 | 2 | 4 | | | | |
| | Other | | | | | | | | |
| | Total workload | | | | 75 | | | | |
| | Total workload / 25 | | | | 75/25 | | | | |
| | ECTS Credit of the Course | | | | 3 | | | | |
| Contribution Level Between Course Outcomes and Program Outcomes | No | Program Outcomes | 1 | 2 | 3 | 4 | 5 | | |
| | 1 | PO1 | | | x | | | | |
| | 2 | PO2 | | | | | | | |
| | 3 | PO3 | | | | | | | |
| | 4 | PO4 | | | | | | | |
| | 5 | PO5 | | | | | | | |
| | 6 | PO5 | | | | | | | |
| | 7 | PO7 | | | | | | | |
| | 8 | PO8 | | | | | | | |
| | 9 | PP9 | | | | | | | |
| | 10 | PO10 | | | | | | | |

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| | 11 | PO11 | | | | | |
| | 12 | PO12 | | | | x | |
| | 13 | PO13 | | | | | |
| | 14 | PO14 | | | x | | |
| Instructor (s) to Give the Course and Contact Information | 1. Sibel Elif Gültekin sibelg@gazi.edu.tr 2. Benay Yıldırım benay@gazi.edu.tr 3. Emre Barış emrebaris@gazi.edu.tr 4. Burcu TOKÖZLÜ bsenguven@gazi.edu.tr | | | | | | |