# Prosthetic dentistry

| **IMPRINT** | |
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| **Academic Year** | 2026/2027 |
| **Department** | Faculty of Medicine and Dentistry |
| **Field of study** | English Dentistry Division |
| **Main scientific discipline** | Medical science |
| **Study Profile** | General academic |
| **Level of studies** | uniform MSc |
| **Form of studies** | Full-time program |
| **Type of module / course** | obligatory |
| **Form of verification of learning outcomes** | Exam |
| **Educational Unit / Educational Units** | Department of Prosthetic Dentistry St. Binieckiego str. 6, 02-097 Warsaw Phone: 22 116 64 70 Mail: katedraprotetyki@wum.edu.pl |
| **Head of Educational Unit / Heads of Educational Units** | Prof. Jolanta Kostrzewa-Janicka, DDS, PhD, |
| **Course coordinator** | Prof. Jolanta Kostrzewa-Janicka, DDS, PhD,<br>St. Binieckiego str. 6, 02-097 Warsaw Phone: 22 116 64 70<br>Mail: katedraprotetyki@wum.edu.pl |
| **Person responsible for syllabus** | Department of Prosthetic dentistry (DPD)<br>Krzysztof Majchrzak, DDS, PhD |
| **Teachers** | Magdalena Rączkiewicz DDS,PhD, mraczkiewicz@wum.edu.pl |

| **BASIC INFORMATION** | | | |
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| **Year and semester of studies** | V, IX and X semester | **Number of ECTS credits** | 10 |

| **FORMS OF CLASSES**<br>**Contacting hours with academic teacher** | **Number of hours** | **ECTS credits calculation** |
|---|---|---|
| Lecture (L) | 0 | |
| Seminar (S) | 15 | 0,52 |
| Classes (C) | | |
| e-learning (e-L) | | |
| Practical classes (PC) | 125 | 4,31 |
| Work placement (WP) | | |
| **Unassisted student's work** | | |
| Preparation for classes and completions | 150 | 5,17 |

| **COURSE OBJECTIVES** | |
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| O1 | Acquiring knowledge of the morphology and physiology of stomatognathic system in terms of interdisciplinary rehabilitation, taking into account occlusion in individual prosthetic restorations depending on the stage of the patient's individual development. |
| O2 | Acquiring knowledge about planning and preparation for prosthetic treatment, establishing an individual treatment plan and multi-specialist cooperation in holistic dental care, including the correct keeping of medical records |
| O3 | Acquiring knowledge about the types of prosthetic restorations, indications and contraindications to their use as well as clinical and laboratory procedures in the implementation of these restorations, including procedures in the field of aesthetic dentistry and implantology |
| O4 | Acquiring the ability to choose dental materials when providing all types of prosthetic restorations |
| O5 | Acquisition of clinical management skills in simple clinical cases of prosthetic rehabilitation of patients with morphological disorders of the stomatognathic system, design of prosthetic restorations and cooperation with technician |
| O6 | Acquiring the ability to diagnose functional disorders of the stomatognathic system and treatment algorithms depending on the type of disorder. |
| O7 | Preparing students for independent practice in the field of prosthetic rehabilitation of patients and interdisciplinary treatment of patients in a multidisciplinary team, taking into account the doctor's behavior pattern, the way of |

**STANDARDS OF LEARNING – DETAILED DESCRIPTION OF EFFECTS OF LEARNING**

| **Code and number of the effect of learning in accordance with standards of learning** | **Effects in the field of:** |
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| **Knowledge – Graduate* knows and understands:** | |
| F.W1. | occlusal norms at various stages of individual development and deviations from the norms |
| F.W2. | mechanisms leading to organ and systemic pathologies (including infectious, invasive, autoimmune, immunodeficiency, metabolic and genetic diseases) |
| F.W10. | indications and contraindications for treatment with the use of dental implants; |
| F.W11. | indications and contraindications for esthetic dentistry procedures; |
| F.W14. | causes and rules of conduct in the case of complications of the stomatognathic system diseases |
| F.W16. | methods of rehabilitation of the masticatory system |
| **Skills– Graduate* is able to:** | |
| F.U1. | take a medical history from the patient or their family; |
| F.U2. | perform a dental physical examination of the patient; |
| F.U3. | explain the nature of the patient's condition, determine a treatment plan confirmed by the patient's informed consent, and establish the prognosis; |
| F.U6. | interpret the results of additional examinations and consultations; |
| F.U7. | determine indications and contraindications for a specific dental procedure; |
| F.U9. | manage systemic and local complications occurring during and after dental procedures; |
| F.U10. | prescribe medicinal products, taking into account their interactions and adverse effects; |
| F.U11. | maintain current patient records and issue referrals for diagnostic examinations or specialist dental and general medical treatment; |
| F.U16. | administer appropriate medicinal products during and after a dental procedure to alleviate pain and anxiety; |
| F.U22. | perform prosthetic rehabilitation in simple cases, including clinical and laboratory procedures; |

** In appendix to the Regulation of Minister of Science and Higher education from 26th of July 2019 „graduate", not student is mentioned.*

| **CLASSES** | | |
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| **Form of class** | **Class contents** | **Effects of Learning** |

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| Seminars | S1 Topic: Patient Examination - Interview, Extraoral and Intraoral Examination, Additional Tests - Components of the Treatment Plan. Common Errors in Examination and Treatment Planning. | F.W1., F.W2., F.W10., F.W11., F.W14., F.W16. |
| | S2 Topic: Principles of Occlusion, Occlusal Norms at Different Stages of Individual Development and Deviations - The Importance of Occlusion in Prosthetic Treatment, Articulatory States of the Mandible, Occlusal Determinants. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S3 Topic: The Use of the Articulator and Facebow in Diagnostic and Prosthetic Treatment - Types of Articulators and Facebows Used in Diagnostics and Prosthetic Treatment. Definitions, Construction, Functions. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S4 Topic: Clinical and Laboratory Procedures in the Fabrication of Complete Dentures - Definition, Indications, Procedure Stages, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S5 Topic: Clinical and Laboratory Procedures in the Fabrication of Partial Removable Dentures - Definition, Indications, Contraindications, Types of Restorations, Procedure Stages, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S6 Topic: Clinical and Laboratory Procedures in the Fabrication of Skeletal Dentures - Definition, Indications, and Contraindications. Structural Elements, Procedure Stages, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S7 Topic: Clinical and Laboratory Procedures in the Fabrication of Fixed Prostheses - Post and Core Restorations. Definition, Indications, Contraindications, Types. Procedure Stages, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S8 Topic: Clinical and Laboratory Procedures in the Fabrication of Fixed Prostheses - Crowns. Definition, Indications, Contraindications, Types. Procedure Stages, Abutment Tooth Preparation, Impressions, Temporary Restorations, Cementation, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S9 Topic: Clinical and Laboratory Procedures in the Fabrication of Fixed Prostheses - Bridges. Definition, Indications, Contraindications, Types. Procedure Stages, Abutment Teeth Preparation, Impressions, Temporary Restorations, Cementation, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S10 Topic: Disorders of the Masticatory System - Classification, Therapeutic Management. Definition, Classification, Diagnostic Principles, Indications for Therapy. Symptoms and Consequences of Masticatory System Disorders - Therapeutic Management. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S11 Topic: Indications and Contraindications for Treatment Using Dental Implants. Definition, Characteristics, Types of Implants and Implant Abutments. Indications, Contraindications for Implant Treatment, Types of Restorations. Clinical Procedures, Possible Complications. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| | S12 Topic: Indications and Contraindications for Aesthetic Dentistry Procedures. Therapeutic Goals and Functions of Modern Prosthetic Dentistry with Emphasis on Aesthetic Dentistry. Patient Examination and Treatment Planning. Interdisciplinary Patient Preparation. Types of Procedures and Restorations. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |

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| | S13 Topic: Therapeutic Management for Juvenile Patients. Goals of Prosthetic Treatment for Juvenile Patients. Causes and Classification of Stomatognathic System Disorders. Age Categories and Prosthetic Solutions for Different Age Groups.<br><br>S14 Topic: Interdisciplinary Treatment. Treatment Planning and Preparation for Prosthetic Rehabilitation Considering Interdisciplinary Consultations. Indications, Clinical Cases. Sequence of Procedures, Protocols. Common Errors in Planning.<br><br>S15 Topic: Photography and Digitalization in Prosthetic Treatment. Photography - Procedural Algorithms, Use of Digitalization in Planning and Prosthetic Rehabilitation. | F.W1., FW2., F.W10., F.W11., F.W14., F.W16.<br><br>F.W1., FW2., F.W10., F.W11., F.W14., F.W16.<br><br>F.W1., FW2., F.W10., F.W11., F.W14., F.W16. |
| Practical class | C1-C33. Topic: Prosthetic Rehabilitation of patients using various types of prosthetic restorations depending on indications, condition of the prosthetic base, and patient's age<br>Classes are held twice a week, with clinical sessions lasting 4 didactic hours, conducted over two semesters.<br><br>The course focuses on the holistic prosthetic rehabilitation of patients using various types of prosthetic restorations, depending on indications, changes in the prosthetic field, overall health condition, and patient age.<br><br>Optimal selection of prosthetic restorations based on the condition of the prosthetic field, using all types of prosthetic restorations.<br>Implant treatment with OVD-type prostheses.<br>Interdisciplinary treatment.<br>Diagnostics of functional disorders of the masticatory system.<br>Practical sessions with patients and phantoms.<br><br>E34-E35 Topic: High-fidelity simulator sessions - learning to prepare abutments for a porcelain-fused-to-metal bridge for teeth 24-26. Comparison of prepared teeth with a reference model.<br><br><u>Educational Content:</u><br>E1: Entry Colloquium.<br>E2-E4: Patient examination, analysis of the morphological and functional state of the masticatory system, and additional tests. Creating diagnostic models, facebow registration, model analysis in the articulator. Presentation and discussion of possible treatment plans, determining the optimal treatment plan considering indications and contraindications for specific prosthetic restorations.<br>E5-E13: Examination of edentulous patients, analysis of the morphological and functional state of the masticatory system. Indications for additional tests. Clinical and laboratory procedures in the fabrication of complete dentures considering individual stages. Team collaboration and follow-up care. Stomatopathies - classification and treatment.<br>E14-E20: Patient examination, analysis of the morphological and functional state of the masticatory system considering types of disorders, classification of deficiencies, changes in the prosthetic field, | F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.<br><br>F.U7., F.U22.<br><br>F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.<br><br>F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.<br><br>F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22. |

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| | overall health condition, and patient age. Indications for additional tests. Pre-prosthetic patient preparation. Clinical and laboratory procedures in the fabrication of removable dentures considering individual stages, depending on the type and structure of the prosthetic restoration (partial dentures, immediate dentures, skeletal dentures, OVD dentures). Team collaboration and follow-up care. Repairs of removable restorations.<br>E21-E30: Working with patients or phantoms. Examination of the patient, analysis of the morphological and functional state of the masticatory system considering types of disorders, classification of deficiencies, changes in the prosthetic field, overall health condition, and patient age. Indications for additional tests. Pre-prosthetic patient preparation. Clinical and laboratory procedures in the fabrication of fixed prostheses considering individual stages, depending on the type and structure of the prosthetic restoration. Team collaboration and follow-up care.<br>E31-33: Diagnostics of functional disorders of the masticatory system. Patient examination, analysis of the morphological and functional state of the masticatory system, and additional tests. Creation of diagnostic models, facebow registration, model analysis in the articulator. Differential diagnostics. Presentation of diagnosis according to the current classification, discussion of possible treatment plans, considering occlusal therapy. Initial therapeutic procedures.<br>E34-E35: High-fidelity simulator sessions - learning to prepare abutments for a porcelain-fused-to-metal bridge for teeth 24-26. Comparison of prepared teeth with a reference model. | F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.<br><br>F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22.<br><br>F.U7., F.U22 |

## LITERATURE

**Obligatory**

1. Mierzwińska-Nastalska E., Kochanek Leśniewska A.: Fundamentals of prosthodontics.
2.I. Hayakawa: Principles and Practices of Complete Dentures. Quintessence Publ. Co Ltd 2001.
3. H.T. Shillingburg: Fundamentals of Fixed Prosthodontics. Quintessence Publ. Co Ltd 1997.
4. A.B. Carr, G.P Mc Ginvey, D.T. Brown: McCracken's Removable Partial Prosthodontics. St. Louis: Mosby 2004.
5. R.G. Craig, J. M Powers: Restorative Dental Materials. Mosby 2002

**Supplementary**

1. R.M. Basker, J.C. Davenport: Prosthetic Treatment of the Edentulous Patient. Blackwell Munksgaard 2002.
2. J.A. Hobkirk, R.M. Watson, L. Searson: Introducing Dental Implants. Churvhill Livingstone 2003.

## VERIFYING THE EFFECT OF LEARNING

| Code of the course effect of learning | Ways of verifying the effect of learning | Completion criterion |
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| F.W1, F.W2, F.W10, F.W11, F.W14, F.W16 | Seminar evaluations are based on attendance, theoretical preparation, and active participation in the seminars. | Active participation in seminars |
| F.U1., F.U2., F.U3., F.U6., F.U7., F.U9., F.U10., F.U11., F.U16., F.U22. | Passing the entry test is a prerequisite for commencing clinical classes. The test covers all types of prosthetic restorations and the topics discussed during the course lectures in Years 3 and 4. Practical classes are completed based on the student's theoretical preparation for clinical classes, active participation, and the academic teacher's assessment.<br>The assessment covers:<br>• the correctness of performed therapeutic procedures; | **Assessment criteria**<br>**Written tests:**<br>2.0 (failed) <60%<br>3.0 (satisfactory) 61-68%<br>3.5 (rather good) 68-75%<br>4.0 (good) 76-82%<br>4.5 (more than good) 83-90%<br>5.0 (very good)> 90% |

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| | • theoretical knowledge, assessed through oral and written tests covering individual areas of prosthodontics;<br>• theoretical preparation for clinical classes, verified orally before each clinical procedure;<br>• the student's attitude towards the patient, dental assistant, and treatment team.<br>Tests covering individual areas of prosthodontics may be taken on three scheduled dates. The third attempt is conducted before an examination board consisting of an independent academic staff member from the Department of Prosthodontics and the academic teacher responsible for the student's classes. Failure to pass this test is equivalent to failure to complete the course.<br>Attendance at all practical classes is compulsory. Every missed class, including an excused absence, must be made up.<br>In the event of an excused absence or up to two permitted unexcused absences, the student may arrange the date and form of making up the missed classes, unless the number of absences makes this impossible. In such cases, the decision is made by the Head of the Unit.<br>Failure to complete the practical classes results in failure to complete the course.<br>1. Being unprepared for three practical classes during a semester results in a lower final grade for the given academic year.<br>2. Every missed practical class must be made up, following arrangements with the academic teacher, even if the absence is supported by a medical certificate.<br>3. Conduct contrary to the practical class regulations, including arriving late, not wearing an identification badge, using a mobile phone during classes, etc., results in the academic teacher recording the student as unprepared. Three such records result in a lower final grade for the given academic year, as specified in point 1.<br>4. Preparing a presentation or review article based on current scientific publications and available literature allows the student to receive a "+", which:<br>• cancels one record of unpreparedness referred to in point 3; or<br>• provides one additional point in a partial test conducted during the semester. | **Oral tests:**<br>2.0 (failed) <60%<br>3.0 (satisfactory) 61-68%<br>3.5 (rather good) 68-75%<br>4.0 (good) 76-82%<br>4.5 (more than good) 83-90%<br>5.0 (very good)> 90% |
| | The final grade in Year 5 consists of three components:<br>1. Theoretical knowledge – an oral or written test (three attempts).<br>2. Practical skills – clinical work with patients and the fabrication of various types of prosthetic restorations.<br>3. Attitude towards the patient, dental assistant, and dental technician. | Assessment criteria points 1,2,3<br>Written tests:<br>2.0 (failed) <60%<br>3.0 (satisfactory) 61-68%<br>3.5 (rather good) 69-75%<br>4.0 (good) 76-82%<br>4.5 (more than good) 83-90%<br>5.0 (very good)> 90%<br>Oral tests and points 1,2,3:<br>5.0- student interested in the subject, theoretical basics mastered to a very good |

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| | | degree, with good manual skills, well-mannered, correct approach to the patient, technician, teacher.<br>He applies the acquired knowledge in practice, makes correct diagnoses, logically formulates conclusions regarding the planning and course of treatment.<br>4.5- meets the above criteria to an over good degree<br>4.0 - meets the above criteria to a good degree<br>3.5- meets the above criteria to a fairly good degree<br>3.0- meets the above criteria sufficiently<br>2.0- insufficient knowledge of the learning outcomes, does not meet the above criteria |
| | Diploma Examination – Practical Component<br>Assessment of the clinical skills acquired during practical teaching in the Department of Prosthodontics in Years 3, 4, and 5.<br>Verification of the achieved learning outcomes in the categories of knowledge and skills relating to communication, manual procedures, and clinical management algorithms. The assessment is based on direct observation of the student demonstrating their skills during a traditional clinical examination—performing a procedure on a patient and answering theoretical questions related to the procedure and associated topics—or during a standardised Objective Structured Clinical Examination (OSCE). | 5.0- student interested in the subject, theoretical basics mastered to a very good degree, with good manual skills, well-mannered, correct approach to the patient, technician, teacher.<br>He applies the acquired knowledge in practice, makes correct diagnoses, logically formulates conclusions regarding the planning and course of treatment.<br>4.5- meets the above criteria to an over good degree<br>4.0 - meets the above criteria to a good degree<br>3.5- meets the above criteria to a fairly good degree<br>3.0- meets the above criteria sufficiently<br>2.0- insufficient knowledge of the learning outcomes, does not meet the above criteria |
| | Diploma Examination – Written Test<br>The theoretical examination consists of 100 single-best-answer multiple-choice questions.<br>A minimum score of 60% is required to pass the examination.<br>In accordance with the Medical University of Warsaw Regulations for Written Test Examinations:<br>1. Students taking the examination must arrive on the date and at the time specified by the unit, at least 20 minutes before the scheduled start of the examination.<br>2. Members of the Examination Team verify the identity of each student using a photographic identification document and assign | Pass mark is 61%, and grades are determined after evaluating the test results. |

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| | seats in the examination room based on the list of students admitted to the examination.<br>3. Students must leave all notes, notebooks, textbooks, bags, briefcases, backpacks, mobile phones, tablets, and other electronic devices, including smartwatches, in the location indicated by the members of the Examination Team. All electronic devices must be switched off.<br>4. During the examination, students are strictly prohibited from possessing electronic devices used to copy or transmit information, particularly mobile phones, smart glasses, and/or other devices providing access to ChatGPT.<br>5. Cheating during the examination is prohibited. This includes receiving assistance from other persons, using devices or educational materials, communicating with other students, copying answers, assisting other students, or engaging in any similar conduct.<br>6. Students are prohibited from leaving the examination room without the permission of a member of the Examination Team.<br>Any violation of the above rules may constitute grounds for terminating the student's examination and awarding a failing grade.<br>The decision is made by the Head of the Examination Team in consultation with the other members of the Examination Team. | |
| | Diploma Examination – Final Grade<br>The final grade is calculated as a weighted average of the grades obtained from:<br>• practical classes in Years 4 and 5 – 20%;<br>• practical examination – 30%;<br>• written test – 50%.<br>Failure to pass either component of the diploma examination—the clinical examination or the written test—results in a failing grade and the requirement to take the diploma examination for a second time.<br>In the event of a failing grade in the practical examination, the second and, if necessary, third examination dates are scheduled individually before the written test so that the student may take the written test. A failing grade on the third attempt at the practical examination is equivalent to a third attempt at the diploma examination in the course.<br>A failing grade in the written test results in a second examination attempt, which is conducted orally. Failure to pass the second attempt is equivalent to a third attempt at the diploma examination in the course.<br>An earlier oral diploma examination date is available to students who:<br>• have achieved a grade average of 4.8 from Years 4 and 5 and the practical examination, including a grade of 5.0 for classes in Year 5; and<br>• have participated in the activities of a Student Scientific Society, resulting in the publication of a scientific paper.<br>This examination is treated as the first attempt and replaces the written test. The examination covers the content of lectures, seminars, and practical classes conducted in Years 3, 4, and 5. | |

**ADDITIONAL INFORMATION**

1. The person responsible for teaching in Year 5 is Elżbieta Wojtyńska, MD, PhD.
2. Student Scientific Society – supervisors: Kamila Wróbel-Bednarz, MD, PhD: kwrobel@wum.edu.pl; Marcin Szerszeń, DDS, PhD: mszerszen@wum.edu.pl.
3. Information concerning the diploma examination is provided in Table 8.

4. All absences from practical classes must be made up. The date and form must be agreed in advance with the academic teacher responsible for the classes.
5. Students following an individual study programme must arrange their class dates with the year tutor before the beginning of the academic year, in accordance with the class schedule of the Department of Prosthodontics.
6. Students must attend classes wearing protective clothing, including appropriate change of footwear, and an identification badge displaying the following information: "student", year of study, first name, and surname. Bags must be stored in the lockers located in the clinical rooms.
7. Failure to comply with occupational health and safety regulations is unacceptable.
8. Students are requested to arrive on time. Arriving more than 15 minutes late is treated as an absence.
9. Mobile phones may not be used during classes or in clinical rooms.
10. Simulation classes – the date will be announced at the beginning of the academic year.
11. During the written diploma examination, students must leave all accessories and devices, including mobile phones, watches, headphones, and bags, in the designated area.
12. Course completion: In the event of an excused absence from an assessment, the student is entitled to take the assessment on the next date scheduled by the unit. An unexcused absence constitutes grounds for recording a failure to complete the course on the relevant date. If the student fails to complete the course by the final date scheduled by the unit in the given academic year, the student does not obtain credit for the course.
13. If a student receives a failing grade in a course ending with course completion, the student is entitled to two resit attempts.
14. Examinations: To take an examination scheduled outside the examination session, the student must first obtain credit for the course. The student is entitled to three examination attempts, of which the second and third are resit attempts.
15. For the second course-completion resit or the second examination resit, the student may submit a request to the Dean for the participation of an observer appointed by the Students' Union.

The Dean may grant permission to take an examination or assessment before an examination board if justified objections concerning the conduct of the examination or assessment are raised.

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**ATTENTION**

The final 10 minutes of the last class of the block/semester/year should be allotted for students to fill out the Survey of Evaluation of Classes and Academic Teachers