



UNIVERSITY OF ZAGREB
SCHOOL OF DENTAL MEDICINE

LIST OF ACTIVITIES FOR THE COURSE
PROJECT
ACADEMIC YEAR 2024/2025

Course coordinator
Associate Professor Danijela Marović

July 2024

Dear students,

The elective course Project was launched to promote scientific and professional student activities at the School of Dental Medicine, University of Zagreb, under the mentorship of teachers. The students of all years of study (from 1st to 6th year) can be enrolled in the course.

The course aims to connect students interested in additional scientific / professional activities with teachers willing to include students in them to raise student scientific, professional, and organizational skills and competencies.

Students who choose this course and the teacher for their activities receive 1 ECTS credit. One student in one academic year can receive a maximum of 1 ECTS credit for this activity in this course. By signing the index, the teacher confirms that the student has duly performed the planned obligations. There are no grades from the subject Project, so it does not enter the grade point average.

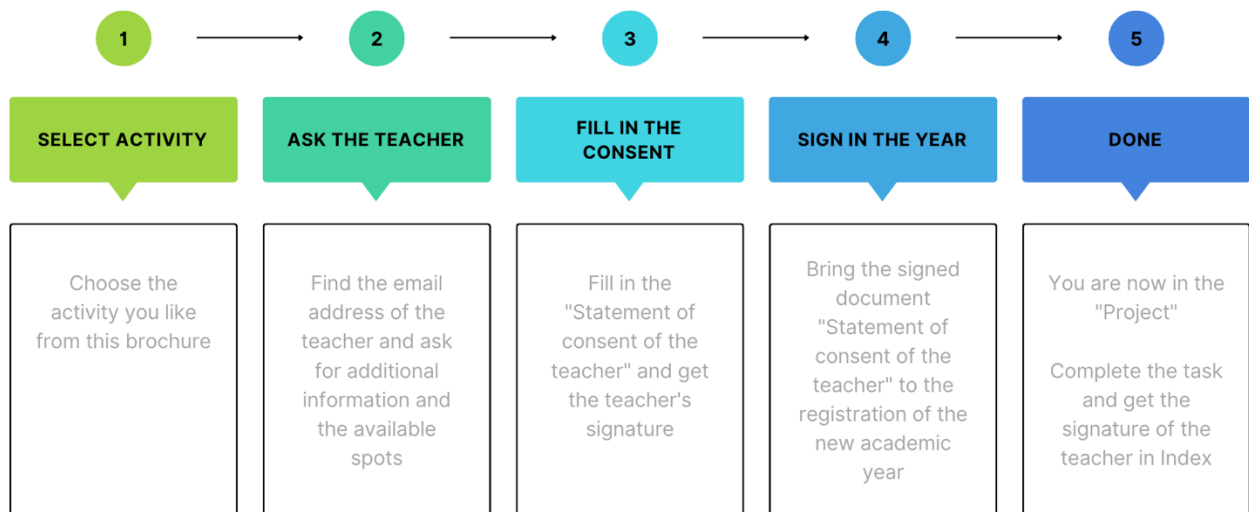
The list of available scientific / professional student activities within the course Project in the academic year 2023/2024 is available on the following pages. For any additional information, feel free to contact teachers by email.

Sincerely,

Danijela Marović

Course coordinator of Project

timeline for students



LIST OF ACTIVITIES

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Name and surname (email) Professor Vlaho Brailo (brailo@sfzg.hr)
Department Department of Oral Medicine
Name of activity The influence of the oral health of children undergoing dental treatment under general anesthesia on the family's quality of life
Type of activity scientific activity

Number of required students for the implementation of activities: 4

Year of study in which the student must be enrolled to participate: 5, 6.

Prerequisites that the student should meet

No special prerequisites.

Brief description of activities

The aim of the activity is to assess the impact of oral health in children undergoing dental treatment in general anaesthesia on the family's quality of life. The study will be performed with a questionnaire that will be administered to parents and guardians before the procedure.

Student duties

Duties of the student(s) are the following: entering of the data in the database, data analysis and writing of the paper with mentor's assistance.

Duration 30 hours

Indicative date of start and end of the activities 23.09.2024 - 01.03.2025

Benefits for the student

By taking part in this activity, students will gain practical experience in conducting scientific research, from the preparation of ethical proposal, through data analysis to the writing of the manuscript. Additionally, students can take part in clinical work with these patients by assisting at the procedures in general anaesthesia.

Name and surname (email) Professor Vlaho Brailo (brailo@sfzg.hr)

Department Department of Oral Medicine

Name of activity Chronic renal failure and oral health

Type of activity scientific activity

Number of required students for the implementation of activities: 8

Year of study in which the student must be enrolled to participate: 4., 5, 6.

Prerequisites that the student should meet

No special prerequisites.

Brief description of activities

Aim of the activity is to analyse different aspects of dental treatment in patients with chronic renal failure:

1. Write a review paper on chronic renal failure and oral health
2. Analyse the data on dental work-up in patients undergoing renal transplantation. Under the mentorship of prof. Brailo students will design the form for data extraction, extract the data from hospital system, enter the data in the form, analyze the data and write a scientific paper.
3. Compile a patient information leaflet on dialysis and oral health

Student duties

To search the literature and find similar studies on the topic

To design a form for data entry (based on the studies from the literature)

To enter a minimum of 20 patients from hospital system in the form

To write the paper after the data analysis

Duration 40 hours

Indicative date of start and end of the activities 23.09.2024 - 06.06.2025

Benefits for the student

By participating in this activity students will

1. Get theoretical and practical knowledge in the management of medically complex patients
2. Take part in designing a scientific study
3. Learn to define variables of interest in scientific paper

4. Get theoretical and practical knowledge on writing a scientific paper

Name and surname (email) Prof. Robert Ćelić (celic@sfzg.hr)
Department Department of Removable Prosthodontics
Title of the activity Digital analysis of occlusion using a T-scan device
Type of activity scientific and professional activity
Number of required students for the implementation of activities 3
Year of study in which the student must be enrolled to participate: 3., 4., 5., 6.

Prerequisites that the student should meet

Passed exam in the Occlusion - second year of study

Brief description of activities

Traditional occlusal indicators or "markers" used daily in occlusal analysis are articulating papers (in various thicknesses), shimstock sheets, elastic impression materials and occlusal wax strips. These static materials have a wide range of physical properties (viscosity, elasticity, volumetric contraction, distortion and crumpling) that contribute to inaccuracies in their clinical use. They only indicate the location of occlusal contact but are not able to quantify the functional occlusal force and duration of occlusal contact.

Recently, digital devices such as T-scan devices have emerged that can record variants of occlusal contact force in real time, providing additional and extremely important information in occlusal analysis. The T-Scan device records and visually displays static (in the position of maximum intercuspitation) and dynamic (during mandibular protrusion and laterotrusion movements) occlusal contacts on dental arches (and all types of prosthetic work). It records the relative force of each tooth contact, the distribution of forces in relation to the maximum force transmitted to the entire dental arch as well as to individual teeth.

Student duties

Be present at the time of the agreed activity dates.

Duration 20 hours

Indicative date of start and end of the activities 02.02.2025 - 12.07.2025

Benefits for the student

Enhanced understanding and comprehension of dental occlusion within the framework of masticatory system function, as well as its broader applications in dental prosthodontics and orthodontics.

Name and surname (email) Assoc. Prof. Dragana Gabrić (dgabric@sfzg.hr)
Department Department of Oral Surgery
Title of the activity Laboratory investigation of implant hydrophilicity
Type of activity scientific activity
Number of required students for the implementation of activities 3
Year of study in which the student must be enrolled to participate: 4, 5, 6.

Prerequisites that the student should meet

Basic knowledge in the field of dental implantology

Brief description of activities

13 different sterile dental implants will be included in the research. For research of hydrophilicity of implants, donated blood will be used. Hydrophilicity will be researched with donated blood from KBC Zagreb patients from different departments. The dental implant will urinate with a drop of donated blood. Hydrophilicity will be determined by measuring the contact angle of a drop of blood with the surface of the implant. The measurements will be carried out at the Institute of Physics.

Student duties

The student's duties are to take measurements on the profilometer under expert supervision, prepare data for statistical analysis and participate in writing a scientific paper.

Duration 30 hours

Indicative start and end date of activities 15.09.2024 - 01.01.2025

Benefits for the student

Learn to use experimental methods for testing and measuring the hydrophilicity of implant surfaces and dental materials, and learn how to write a scientific paper.

Name and surname (email) Prof. Silvana Jukić Krmek (jukic@sfzg.hr)
Department Department of Endodontics and Restorative Dentistry
Title of the activity Congress "Synergy of science and clinical work"
Type of activity professional activity

Number of required students for the implementation of activities 5

Year of study in which the student must be enrolled to participate: 4, 5, 6.

Prerequisites that the student should meet

No special prerequisites.

Brief description of activities

As part of the "Synergy of Science and Clinical Work" Congress Project, students will participate in activities related to the organization and preparation of the Congress of the Department of Endodontics and Restorative Dental Medicine, which will be held in October 2024 in Zagreb.

Student duties

Students are expected to help the organizing committee in preparing the exhibition space, preparing professional workshops, taking care of congress materials etc.

Duration 20 hours

Indicative start and end date of activities 01.10.2024 - 13.10.2024

Benefits for the student

By participating in activities related to the congress, students gain experience in organizing such events and the opportunity to attend lectures by distinguished invited lecturers.

Name and surname (email) Assoc. Prof. Danijela Marović (marovic@sfzg.hr)
Department Department of Endodontics and Restorative Dentistry
Title of the activity Effect of filler content on micro- and macromechanical properties of experimental composite materials
Type of activity scientific activity

Number of required students for the implementation of activities 2

Year of study in which the student must be enrolled to participate: 3, 4, 5, 6.

Interest in scientific work, diligence, meticulous work, attention to details.

Brief description of activities

In this research, the influence of the filler content of experimental composite materials on their mechanical properties will be examined: Vickers microhardness, flexural strength and modulus of elasticity under conditions of accelerated aging.

Student duties

Students are required to prepare the samples, conduct testing, interpret the obtained results and write a scientific paper.

Duration 100 hours

Indicative start and end date of activities 01.10.2024 - 01.10.2025.

Benefits for the student

Students interested in scientific work will gain experience in scientific work in dentistry and the satisfaction of implementing evidence-based facts in clinical dental practice. The proposed research can be used for a graduate thesis or the publication of a scientific paper.

Name and surname (email) Assoc. Prof. Danijela Marović (marovic@sfzg.hr)
Department Department of Endodontics and Restorative Dentistry
Title of the activity Effect of filler content on optical properties of experimental composite materials and temperature increase during polymerization
Type of activity scientific activity

Number of required students for the implementation of activities 2

Year of study in which the student must be enrolled to participate: 3, 4, 5, 6.

Prerequisites that the student should meet

Interest in scientific work, diligence, meticulous work, attention to details.

Brief description of activities

In this research, the influence of the filler content of experimental composite materials on the color change under conditions of accelerated aging, the cross-linking of the polymer network and the increase in temperature during polymerization will be examined.

Student duties

Students are required to prepare the samples, conduct testing, interpret the obtained results and write a scientific paper.

Duration 100 hours

Indicative start and end date of activities 01.10.2024 - 20.06.2025

Benefits for the student

Students interested in scientific work will gain experience in scientific work in dentistry and the satisfaction of implementing evidence-based facts in clinical dental practice. The proposed research can be used for a graduate thesis or the publication of a scientific paper.

Name and surname (email)	Assoc. Prof. Ivica Pelivan (pelivan@sfzg.hr)
Department	Department of Removable Prosthodontics
Activity title	Bruxism - application of the new STAB questionnaire (Standardized Tool for the Assessment of Bruxism)
Type of activity	scientific activity
Number of required students for the implementation of activities	6
Year of study in which the student must be enrolled to participate:	4, 5, 6

Prerequisites that the student should meet

Interest in the epidemiology, etiology, clinical picture and therapy of bruxism

Brief description of activities

The "Standardised Tool for the Assessment of Bruxism" (STAB) is a recently created questionnaire designed for studying the prevalence, causes, clinical presentation, and effects of bruxism on the masticatory system. Students will have an active role in developing the Croatian version of the STAB questionnaire, as well as in validating and administering it to patients with bruxism.

Student duties

The student's responsibilities in this project include actively engaging in the development and verification of the Croatian version of the STAB questionnaire, as well as administering it to patients with bruxism. Students will gather data using the STAB questionnaire and then analyse and interpret the results statistically.

Duration 60 hours

Indicative start and end date of the activity 01.09.2024 - 30.09.2025

Benefits for the student

Through engagement in this project activity, students will:

1. Acquire both theoretical and practical expertise in the dental treatment of individuals suffering from bruxism.
2. Acquire knowledge about identifying the underlying causes of bruxism and its associated clinical manifestations.
3. Engage in the process of designing, preparing, and executing scientific research.

4. Acquire the skill of establishing variables of significance in scientific research.
5. Obtain both theoretical and practical expertise in composing a scientific manuscript.

Name and surname (email) Assoc. Prof. Joško Viskić (viskic@sfzg.hr)
Department Department of Fixed Prosthodontics
Activity title Investigation of the impact of social networks on dental medicine
Type of activity scientific activity
Number of required students for the implementation of activities 2
Year of study in which the student must be enrolled to participate: 2., 3.

Prerequisites that the student should meet

No special prerequisites.

Brief description of activities

The research will be conducted through an internet survey that will be distributed through various communication channels. The idea of the research is to introduce students to thinking, organizing and carrying out scientific work and encouraging them to think about the advantages and disadvantages of social media in dental medicine. The final goal of the project is the publication of research results.

Student duties

Active participation in conceiving, designing, conducting research and data processing and writing a scientific paper.

Duration 100 hours

Indicative start and end date of the activity 01.10.2024 - 15.06.2025

Benefits for the student

Education and guidance through creating and publication of a scientific paper.