UNIVERSITY OF ZAGREB

SCHOOL OF DENTAL MEDICINE

LIST OF ACTIVITIES FOR THE COURSE PROJECT

ACADEMIC YEAR 2025/2026

Course coordinator

Associate Professor Danijela Marović

August 2025

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.

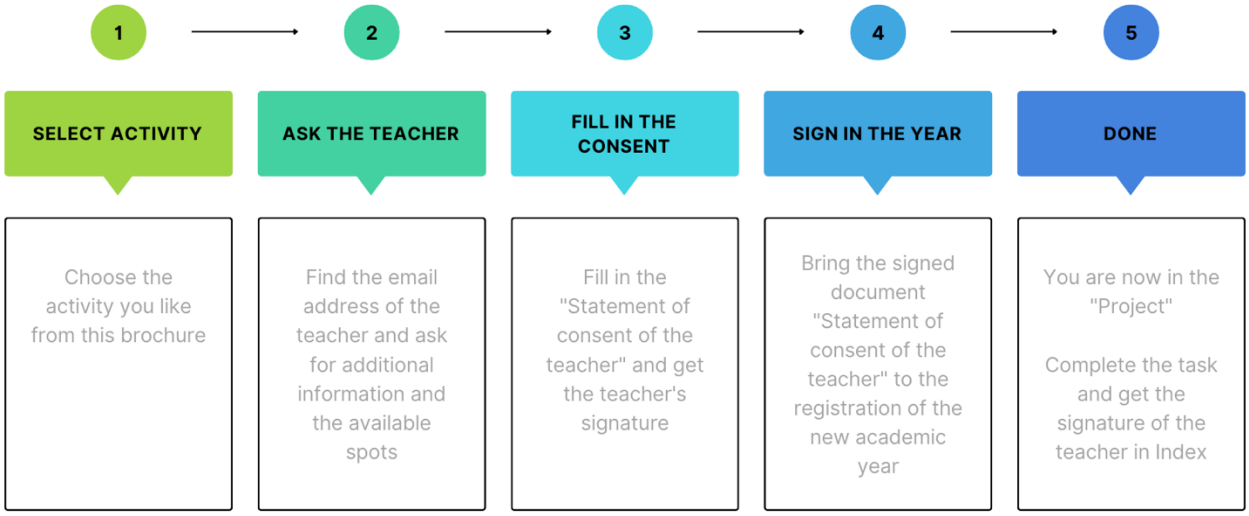
The list of available scientific / professional student activities within the course Project in the academic year 2025/2026 is available on the following pages. For any additional information, feel free to contact teachers by email.

Sincerely,

Danijela Marović

Course coordinator of Project

timeline for students



LIST OF ACTIVITIES

Associate Professor Ivona Bago - Evaluation of bioceramic fillers 5

Professor Dragana Gabrić - Microbiological analysis of membrane permeability for bone tissue regeneration..... 6

Professor Krinstina Goršeta – International Congress " "73rd congress ORCA 2026" 7

Associate Professor Danijela Marović - The influence of rapid polymerization on the mechanical properties of universal composite materials 8

Associate Professor Danijela Marović – Correlation of filler content and long-term water absorption and solubility of composite materials 9

Associate Professor Danijela Marović - The influence of post-polymerization cleaning on 3D printed composite materials 10

Associate Professor Ivana Šutej - European Antibiotic Awareness Day: A Dental Perspective 11

Name and surname (email) Associate Professor Ivona Bago (bago@sfzg.unizg.hr)

Department Department of Endodontics and Restorative Dentistry

Name of activity Evaluation of bioceramic fillers

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: 5, 6.

Prerequisites that the student should meet

Passed exam Introduction to Scientific Work I

Brief description of activities

Students will participate in scientific research and all related activities: collecting scientific literature, collecting and preparing samples, developing methodology, discussing results, and writing a scientific paper. In the study, bioceramic sealers will be evaluated.

Student duties

The student will collect scientific literature and read scientific articles and discuss them with the mentor. They will collect samples and prepare them according to the research protocol. They will conduct research activities under the mentorship of the thesis mentor. They will write a scientific article according to the mentor's instructions.

Duration 8 months, 3 hours per week

Indicative date of start and end of the activities 1.10.2025 – 28.3.2026.

Benefits for the student

Students will learn practically all phases of scientific work from creating an idea to submitting an article for publication.

Name and surname (email)	Prof. Dragana Gabrić (dgabric@sfzg.unizg.hr)
Department	Department of Oral Surgery
Title of the activity	Microbiological analysis of membrane permeability for bone tissue regeneration
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

Passed the clinical microbiology exam, excellent knowledge of English

Brief description of activities

Different barrier membranes for bone regeneration (resorbable collagen, PTFE, magnesium-based, pericardium membrane, growth-factor rich bioactive barrier membrane derived from human placental tissue) will be incubated in bacterial suspension, with different monocultures of bacteria. After incubation and/or certain contact time, samples will be taken, serial dilutions will be performed and CFU counted, in order to see if there is a reduction in bacterial count after the membrane was immersed in bacterial suspension. Second method will be the plate streak method, where bacteria will be inoculated onto agar plate and membrane will be placed on the surface.

Student duties

1. study the application and procedure of the methods that will be used in this research

2. learn the method of counting CFU

3. write a short outline of the proposed research, with the help of a mentor

4. participate in a poster presentation

Duration 25 hours

Indicative start and end date of activities 07.09.2025 - 7.1.2026.

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. Kristina Goršeta (kgorseta@sfzg.unizg.hr)

Department Department of Paediatric and Preventive Dentistry

Title of the activity International Congress " "73rd congress ORCA 2026"

Type of activity professional activity

Number of required students for the implementation of activities 10

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

Prerequisites that the student should meet

Communication skills, teamwork, proficiency in English; knowledge of Spanish will be considered an additional asset

Brief description of activities

The "73rd Annual Congress of the European Organization for Caries Research (ORCA)"will take place in Zagreb from June 24 to 27, 2026. This international event will gather experts in caries research, oral biology, and preventive dental medicine, offering volunteers a valuable opportunity to develop organizational and communication skills in a professional and multicultural environment.

Student duties

As a volunteer, you will be involved in the following activities:

- assisting with the organization and technical preparation of the congress venue,

- providing support during scientific sessions and professional workshops,

- registering and guiding participants, as well as communicating with international guests,

- distributing congress materials and providing information,

- offering logistical support to speakers and the organizing committee.

Duration 40 hours

Indicative start and end date of activities 23.06.2026 – 27.06.2026.

Benefits for the student

Participation in this international congress will enable the development of organizational and communication skills in an international environment, as well as insight into the latest scientific research and clinical approaches in the field of dental medicine. Strengthening cooperation between students and teachers, improving organizational and professional skills. The experience gained will further help in professional and academic development.

Name and surname (email)	Assoc. Prof. Danijela Marović (marovic@sfzg.unizg.hr)
Department	Department of Endodontics and Restorative Dentistry
Title of the activity	The influence of rapid polymerization on the mechanical properties of universal 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: 4, 5, 6.

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

Brief description of activities

This research will examine the influence of rapid polymerization and artificial aging on the flexural strength, flexural modulus, and microhardness of new generations of universal bulk-fill composite materials.

Student duties

Students are required to prepare material samples, conduct testing of flexural strength, flexural modulus, and microhardness before and after artificial aging, enter the results into an Excel spreadsheet, conduct Weibull analysis, and write a scientific abstract for the conference.

Duration 100 hours

Indicative start and end date of activities 01.10.2025 – 30.09.2026.

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.unizg.hr)
Department	Department of Endodontics and Restorative Dentistry
Title of the activity	Correlation of filler content and long-term water absorption and solubility of 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: 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, five composite materials will be made with incrementally increasing amounts of inert fillers and the influence of filler content on their absorption and solubility during long-term exposure to an aqueous environment for one year will be examined.

Student duties

Students are required to prepare material samples, conduct water absorption testing over the course of a year, process the results, and write a scientific abstract for the conference.

Duration 100 hours

Indicative start and end date of activities 01.10.2025 – 30.09.2026.

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.unizg.hr)
Department	Department of Endodontics and Restorative Dentistry
Title of the activity	The influence of post-polymerization cleaning on 3D printed 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: 4., 5., 6.

Prerequisites that the student should meet

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

Brief description of activities

This research will study the influence of different solvents and exposure times of 3D printed composite materials on changes in the degree of conversion, monomer release, embryotoxicity, and their mechanical properties.

Student duties

Students are required to prepare material samples, conduct testing and measurement of bending properties, process the results and write a scientific abstract for the conference.

Duration 100 hours

Indicative start and end date of activities 01.10.2025 – 30.09.2026.

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. Ivana Šutej (isutej@sfzg.unizg.hr)
Department	Pharmacology
Title of the activity	European Antibiotic Awareness Day: A Dental Perspective
Type of activity	professional activity

Number of required students for the implementation of activities 6

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

Prerequisites that the student should meet

Passed exam in Microbiology

Brief description of activities

In order to raise awareness among the public about the necessity of the rational use of antibiotics, November 18th has been declared European Antibiotic Awareness Day (EAAD). On the date designated for EAAD in Croatia, students would organize a lecture on the rational use of antibiotics in dentistry, with an emphasis on preventing antibiotic resistance. After the lecture, a roundtable discussion (with a microbiologist, dentist, and pharmacologist) would be held to address the challenges of antibiotic use in dental practice. Workshops would also be organized on infection prevention in dentistry, with the message on how to correctly use antibiotics only when necessary. In addition to the educational activities, students would create posters, leaflets, and social media posts with information about the importance of responsible antibiotic use, both in dentistry and in general medical practice.

Student duties

Students would have several key responsibilities in organizing and implementing this event for European Antibiotic Awareness Day (EAAD):

Organization of the Lecture: Preparation of the lecture content on the rational use of antibiotics in dentistry, contacting and coordinating with the speakers (microbiologist, dentist, pharmacologist) who will participate in the roundtable discussion.

Organization of the Roundtable: Planning and organizing the roundtable with relevant experts (microbiologist, dentist, pharmacologist), developing questions and topics for discussion. Coordinating with panelists and moderating the discussion during the event.

Organization of Workshops: Preparing materials for the workshop on infection prevention in dentistry, planning practical exercises and demonstrations for students and participants, engaging professors or experts who will lead the workshop.

Creation of Educational Materials: Designing and creating posters, leaflets, and other promotional materials for distribution. Writing and posting information on responsible antibiotic use on the faculty's social media platforms. Organizing the placement of posters and distribution of leaflets on the faculty and other relevant locations.

Social Media Coordination: Creating content for social media (Facebook, Instagram, Twitter) related to the event. Promoting activities and events through online channels. Monitoring engagement and responding to questions or comments on social media.

Duration 20 hours

Indicative start and end date of activities 01.10.2025 – 22.11.2025.

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.