

## ARTIFICIAL REALITY AND ARTIFICIAL INTELLIGENCE IN DENTISTRY

### Erasmus+ Blended Intensive Programme (BIP)

**Host Institution:** Karabük University / Faculty of Dentistry

**Location:** Karabük, Türkiye

**On-site Date:** 04–08 May 2026

**ECTS:** 3 ECTS

**Number of Participants:** 15 students

**Expression of Interest Deadline:** 27 February 2026

**Deadline for Submission of Nominated Student Information:** 03 April 2026

#### Programme Overview

This Erasmus+ Blended Intensive Programme (BIP), entitled “Artificial Reality and Artificial Intelligence in Dentistry”, is designed to provide dentistry students and students from related disciplines with a comprehensive understanding of the rapidly evolving role of artificial intelligence (AI), digitalisation, simulation technologies, and virtual reality (VR) in modern dental practice.

Hosted by Karabük University, the programme combines a preparatory virtual component with an intensive on-site learning experience in Karabük, Türkiye. The academic content integrates theoretical lectures, hands-on workshops, simulation-based training, and clinical observations, ensuring a balanced and practice-oriented learning experience.

Participants will be introduced to AI-powered diagnostic tools and the applications of artificial intelligence in general dentistry, endodontics, and pediatric dentistry. The programme also focuses on digital dentistry, 3D simulation, and virtual reality technologies used in preclinical and clinical dental education. Site visits to dentistry laboratories and the Oral and Dental Health Training and Research Hospital further enhance practical exposure.

In addition to its academic dimension, the programme includes cultural and social activities aimed at promoting intercultural exchange, collaboration, and networking among students and academic staff from partner institutions. Upon successful completion, participants will be awarded 3 ECTS credits, reflecting the overall workload, learning outcomes, and assessment activities.

#### Programme Rationale

The rapid integration of artificial intelligence, digital technologies, 3D simulation, and virtual reality into healthcare systems has significantly transformed the field of dentistry. Contemporary dental education must therefore equip future professionals with the knowledge



and competencies required to understand, evaluate, and effectively apply these emerging technologies.

AI-based diagnostic tools and digital workflows are increasingly used to improve accuracy, efficiency, and patient outcomes in dental practice. Likewise, virtual reality and preclinical simulation systems play a critical role in enhancing clinical skills, patient safety, and student confidence prior to real patient interactions. By combining theoretical foundations with applied learning experiences, this programme enables students to critically assess both the benefits and limitations of AI and artificial reality in dentistry, including ethical and professional considerations.

Furthermore, the Erasmus+ BIP format fosters internationalisation, interdisciplinary learning, and intercultural competence. Bringing together students from different institutions and educational backgrounds supports collaboration, the exchange of best practices, and a shared understanding of innovation in dental education, thereby contributing to the objectives of the European Higher Education Area.

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### **Eligible Fields and Participants**

The programme is primarily open to: Dentistry students.

Students from oral care programmes and other related disciplines with an interest in artificial reality and artificial intelligence applications in dentistry can also be participated.

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### **Programme Structure**

Virtual Component (Online – Microsoft Teams) (*Exact date to be announced.*)

An online kick-off session will be organised to introduce the academic framework, learning objectives, and programme expectations, and to initiate collaboration among participating students and institutions.

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### **On-site Component (Karabük, Türkiye) 04–08 May 2026**

#### **Day 1 – 04 May 2026 (Welcome Day)**

**11:00** – Welcome Event at the Faculty of Dentistry

**11:30** – BIP Presentation Meeting

**12:30** – Lunch

**13:30** – Karabük University Campus Tour

#### **Day 2 – 05 May 2026 (Academic Programme)**

**10:00** – AI-powered Diagnostic Tools in Dentistry

**11:00** – Coffee/Tea Break



**11:30** – The Use of Artificial Intelligence in Endodontics

**12:30** – Lunch

**14:00** – Digitalisation, Simulation, and Virtual Reality in Dentistry

**15:00** – The Use of Artificial Intelligence and VR in Pediatric Dentistry

**16:00** – Visit to the Faculty of Dentistry Laboratories

**Day 3 – 06 May 2026 (Academic Programme)**

**10:00** – Visit to Karabük Oral and Dental Health Training and Research Hospital

**12:30** – Lunch

**14:00** – Preclinical Simulator Applications in Dentistry Laboratories

**15:00** – Evaluation and Feedback Session

**Day 4 – 07 May 2026 (Cultural and Social Programme)**

**10:00** – Visit to Bulak Cave and Crystal Terrace

**12:30** – Lunch at the Safranbolu Faculty of Tourism

**13:30** – Safranbolu Old Town Tour and Free Time

**17:30** – Farewell Dinner at Karabük University Guest House

**Day 5 – 08 May 2026 (Farewell Day)**

**10:00** – Certificate Ceremony

**11:00** – Free Time

**12:30** – Farewell Ceremony

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**Practical Arrangements**

During the on-site component, support will be provided for accommodation arrangements. Assistance with transportation from the airport to Karabük University will also be offered to ensure a comfortable stay for participants.

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**Nomination and Application Process**

Partner institutions are kindly requested to confirm by email whether they intend to send students to the Blended Intensive Programme (BIP) organised by Karabük University.

Expression of Interest (Participation Confirmation)

Partner institutions should inform us by 27 February 2026 whether they will participate in the programme and nominate students.

This confirmation is required in order to finalise the participant quota and programme planning.





**Deadline for Expression of Interest: 27 February 2026**

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### **Nomination Procedure**

Following the confirmation of participation, each partner institution is requested to submit the final list of nominated students through their institutional Erasmus Office.

Nominations should be sent by email to: Gökhan Özdemir – Erasmus Office (gokhanozdemir@karabuk.edu.tr)

**The nomination list must include the following information for each student:** Full name, Field of study, Academic level, Email address



**Deadline for Submission of Nominated Student Information: 03 April 2026**

This deadline represents the final commitment of partner institutions regarding the students they intend to send to the programme.

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### **Application Procedure**

Nominated students will be contacted individually by Karabük University -Faculty of Dentistry and invited to complete the online application process.

Detailed information regarding required documents, participation in the virtual component, and logistical arrangements will be shared with the nominated students after the nomination deadline.

**Further details concerning programme implementation will be communicated to partner institutions in due course.**

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### **Programme Coordinator**

Olcay Özdemir, DDS, PhD Associate Professor

### **Academic Team**

Neslihan Yılmaz Çırakoğlu – Associate Professor

Adem Pekince – Assistant Professor

Mihriban Gökçek Taraç – Assistant Professor

Besar İzzetağa – Assistant Professor

Merve Sarıaslan – Assistant Professor

Yağmur Saraç Gül – Assistant Professor

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For further information and nominations, partner institutions are kindly invited to contact  
**Gökhan Özdemir ([gokhanozdemir@karabuk.edu.tr](mailto:gokhanozdemir@karabuk.edu.tr)).**

