

Medicinski fakultet u Rijeci

**IZVEDBENI NASTAVNI PLAN  
2025/2026**

Za kolegij

**Ethics and Artificial Intelligence**

Studij:	<b>Medical Studies in English (R)</b> (izborni) Sveučilišni integrirani prijediplomski i diplomski studij
Katedra:	<b>Katedra za društvene i humanističke znanosti u medicini</b>
Nositelj kolegija:	<b>izv. prof. dr. sc. Horvat Saša</b>
Godina studija:	<b>1</b>
ECTS:	<b>1.5</b>
Stimulativni ECTS:	<b>0 (0.00%)</b>
Strani jezik:	<b>Mogućnost izvođenja na stranom jeziku</b>

## **Podaci o kolegiju:**

Introduce participants with fundamental ethical issues related to the development and application of artificial intelligence.

## **Popis obvezne ispitne literature:**

Lecture presentations.

Christoph Bartneck , Christoph Lütge , Alan Wagner , Sean Welsh, *An Introduction to Ethics in Robotics and AI*, Springer, 2021.  
Open access: <https://link.springer.com/book/10.1007/978-3-030-51110-4>

Silja Voenekey, Philipp Kellmeyer, Oliver Mueller, Wolfram Burgard, *The Cambridge Handbook of Responsible Artificial Intelligence: Interdisciplinary Perspectives*, Cambridge, 2022. (selected parts)

High-Level Expert Group on Artificial Intelligence (AI HLEG). *Ethics Guidelines for Trustworthy AI*, Brussels, 2019, available at: <https://ec.europa.eu/futurium/en/ai-alliance-consultation.1.html> (selected parts)

Niklas Lidströmer, Hutan Ashrafian (eds.), *Artificial Intelligence in Medicine*, Springer, 2022. (selected parts)

## **Popis dopunske literature:**

Manda Raz, Tam C. Nguyen, Erwin Loh (eds.), *Artificial Intelligence in Medicine. Applications, Limitations and Future Directions*, Springer, 2022. (selected parts)

## **Nastavni plan:**

### **Predavanja popis (s naslovima i pojašnjenjem):**

#### **Artificial Intelligence**

Students will be able to recognize, describe and critically discuss AI topics: The Turing Test; Strong and Weak AI; Types of AI Systems; What Is Machine Learning?; What Is a Robot?; Sense-Plan-Act / System Integration; What Is Hard for AI; Science and Fiction of AI.

#### **Ethical theories related to AI**

Students will be able to describe and discuss fundamental elements of ethical theories related to AI, such as: Descriptive Ethics; Normative Ethics; Deontological Ethics; Consequentialist Ethics; Virtue Ethics; Meta-ethics; Applied Ethics; Relationship Between Ethics and Law; Machine Ethics / Machine Ethics Examples / Moral Diversity and Testing.

#### **Introduction to the topic**

Students will be able to explain the fundamental concepts related to the topic of ethics of artificial intelligence.

### **Seminari popis (s naslovima i pojašnjenjem):**

#### **Trust and Fairness in AI Systems**

Students will be able to recognize and identify the key aspects of trust and fairness in AI Systems.

#### **Responsibility and Liability in the Case of AI Systems**

Students will be able to identify the main arguments concerning responsibility and liability in the case of AI systems.

#### **Psychological Aspects of AI**

Students will be able to recognize and identify main issues regarding psychological aspects of AI.

#### **Privacy Issues of AI**

Students will be able to describe and discuss fundamental elements of privacy issues of AI.

#### **Application Areas of AI**

Students will be able to identify the main concerns regarding application areas of AI.

#### **Artificial Intelligence**

Students will be able to recognize, describe and critically discuss AI topics: The Turing Test; Strong and Weak AI; Types of AI Systems; What Is Machine Learning?; What Is a Robot?; Sense-Plan-Act / System Integration; What Is Hard for AI; Science and Fiction of AI.

#### **Ethical theories related to AI**

Students will be able to describe and discuss fundamental elements of ethical theories related to AI, such as: Descriptive Ethics; Normative Ethics; Deontological Ethics; Consequentialist Ethics; Virtue Ethics; Meta-ethics; Applied Ethics; Relationship Between Ethics and Law; Machine Ethics / Machine Ethics Examples / Moral Diversity and Testing.

#### **Presentations of students' essays on selected topics**

Students critically analyze a selected topic related to ethics and artificial intelligence and showcase their depth of understanding and analytical skills.

## **Obveze studenata:**

Regular attendance, written seminar paper and final examination.

## Ispit (način polaganja ispita, opis pisanog/usmenog/praktičnog dijela ispita, način bodovanja, kriterij ocjenjivanja):

Assessment is carried out in accordance with the Rules of Assessment of the Faculty of Medicine, University of Rijeka: course attendance 54 (%), written seminar paper 23 (%), and final exam 23 (%).

## Ostale napomene (vezane uz kolegij) važne za studente:

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## SATNICA IZVOĐENJA NASTAVE 2025/2026

Ethics and Artificial Intelligence

<b>Predavanja</b> (mjesto i vrijeme / grupa)	<b>Seminari</b> (mjesto i vrijeme / grupa)
<b>12.03.2026</b>	
Artificial Intelligence: <ul style="list-style-type: none"><li>• ONLINE (16:00 - 20:15) <sup>[1602]</sup><ul style="list-style-type: none"><li>◦ EAAI</li></ul></li></ul> Ethical theories related to AI: <ul style="list-style-type: none"><li>• ONLINE (16:00 - 20:15) <sup>[1602]</sup><ul style="list-style-type: none"><li>◦ EAAI</li></ul></li></ul> Introduction to the topic: <ul style="list-style-type: none"><li>• ONLINE (16:00 - 20:15) <sup>[1602]</sup><ul style="list-style-type: none"><li>◦ EAAI</li></ul></li></ul>	
izv. prof. dr. sc. Horvat Saša <sup>[1602]</sup>	
<b>26.03.2026</b>	
	Trust and Fairness in AI Systems: <ul style="list-style-type: none"><li>• ONLINE (16:00 - 20:15) <sup>[1602]</sup><ul style="list-style-type: none"><li>◦ EAAI</li></ul></li></ul> Privacy Issues of AI: <ul style="list-style-type: none"><li>• ONLINE (16:00 - 20:15) <sup>[1602]</sup><ul style="list-style-type: none"><li>◦ EAAI</li></ul></li></ul>
izv. prof. dr. sc. Horvat Saša <sup>[1602]</sup>	

## Popis predavanja, seminara i vježbi:

<b>PREDAVANJA (TEMA)</b>	<b>Broj sati</b>	<b>Mjesto održavanja</b>
Artificial Intelligence	2	ONLINE
Ethical theories related to AI	2	ONLINE
Introduction to the topic	1	ONLINE

<b>SEMINARI (TEMA)</b>	<b>Broj sati</b>	<b>Mjesto održavanja</b>
Trust and Fairness in AI Systems	3	ONLINE
Responsibility and Liability in the Case of AI Systems	3	
Psychological Aspects of AI	1	
Privacy Issues of AI	2	ONLINE
Application Areas of AI	1	

Artificial Intelligence	4	
Ethical theories related to AI	3	
Presentations of students' essays on selected topics	3	

**ISPITNI TERMINI (završni ispit):**

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