Course title: **Computer Communications**

Course code: **63209**

ECTS: **6**

Professor: **prof. dr. Zoran Bosnić**

<u>**Undergraduate**</u>**/ master program**

Prerequisite knowledge:

No explicit courses are pre-requisites for attending this course. Basic knowledge of computing principles and programming are recommended.

Short course description:

What are computer networks? How do they work? What services do they provide? How do we design such networks? What dangers lurk around us? How do we protect ourselves from them? What protocols do we use on the Internet? What are their shortcomings? What is the Internet? And what is TCP/IP?

The aim of the course is to introduce students of computer science and informatics to the basics of computer network operation and major communication protocols. The course focuses on an overview of services and protocols at different layers of network operation, focusing on the OSI and TCP/IP models. The chapters on the operation of today's Internet are also rounded off with chapters on cryptography (simple algorithms, DES, RSA) and network security (SSL, firewalls, intrusion prevention systems). In the theoretical and practical part of the course, the student learns to understand the operation of information and communication technology, to use and plan network services, and to be able to install and administer simple local wired and wireless networks.