Study programmes: BACHELOR STUDIES – Astronomy and Astrophysics

**Course name**: Thermodynamics

Lecturers: Božidar Nikolić and other lecturers

Status: Compulsory

**ECTS**: 10

Attendance prerequisites: No prerequisites.

**Course aims**: Understanding of the basic laws of fluid mechanics, kinetic theory and thermodinamics. Attaining a skill of estimation based on the solid physical ground.

**Course outcome:** Capability to solving standard problems, based on clear understanding of basic physical principles.

## **Course content**:

Fluid mechanics: Basic concepts. Temperature and Heat. Thermal properties of Matter. The First Law of Thermodynamics. The Second Law of Thermodynamics. Entropy. The Third Law of Thermodynamics. Phase Transitions.

## Literature:

- 1. Young & Freedman, University Physics vol. 1, 11th ed., Pearson Addison Wesley (2004)
- 2. Enrico Fermi, Thermodynamics, Dover (1956)

Number of hours: 10Lectures: 4Tutorials: 3Laboratory: 3Research: -Teaching and learning methods:

Lectures, exercises, group discussions, homework, essays.

Assessment (maximal 100 points)			
Course assignments	points	Final exam	points
Lectures	-	Written exam	40
Exercises / Tutorials	10	Oral exam	30
Colloquia	-	Written-oral exam	-
Essay / Project	20		