Course Unit Descriptor

Study Programme: Biotechnology	
Course Unit Title: Materials in biotechnology	
Course Unit Code: BII 301	
Name of Lecturer(s): Prof. Branka M. Pilić, PhD	
Type and Level of Studies: Undergraduate Academic Studies	
Course Status (compulsory/elective): elective	
Semester (winter/summer): Winter	
Language of instruction: English	
Mode of course unit delivery (face-to-face/distance learning): Face-to-face	
Number of ECTS Allocated: 4	
Prerequisites: None	

Course Aims:

The aim of this course is to get basic theoretical knowledge about the materials that are applied in biotechnology, tipe, structure and properties of materials.

Learning Outcomes:

By obtaining this course students acquire basic theoretical knowledge about the type of materials (metal, ceramics, and polymers), the influence of the structure on the final properties of the material. The student will know the difference between the type of material and will be familiar with their properties that are necessary for the applications in biotechnology

Syllabus:

Theory

Introduction to materials, material structure, properties, metals, ceramics, glass, polymeric and bio polymeric materials, material corrosion.

Practice

Introduction - material structure, material structure test methods, inorganic material properties testing methods, composition of polymeric materials, application of materials in biotechnology preparation of samples of polymeric materials for mechanical and thermal tests.

Required Reading

Weekly Contact Hours: 4	**Lectures: 2**	**Practical work: 2**

Teaching Methods:

Lectures and students group work

Knowledge Assessment (maximum of 100 points):

Pre-exam obligations	points	Final exam	points
Active class participation	10	written exam	
Practical work	10	oral exam	30
Preliminary exam(s)	30	…….	
Seminar(s)	10		

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam,

project presentation, seminars, etc.