

Study Programme: Biotechnology
Course Unit Title: Wine Technology
Course Unit Code: PB0401
Name of Lecturer(s): assistant professor Uroš Miljić
Type and Level of Studies: Undergraduate Academic Degree
Course Status (compulsory/elective): Compulsory
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: 6
Prerequisites: None
<p>Course Aims:</p> <p>Gaining of basic scientific and academic skills and knowledge in the field of wine technology. The course will help students to deeply understand particular stages of grape processing and wine production as well as their interconnection. The main aim of the course is to train and educate a technology engineers capable of independently organizing, controlling and leading the technological process of wine production.</p>
<p>Learning Outcomes:</p> <p>Understanding the importance and connection of grape quality, grape processing techniques and other phases of wine production on the quality of the final product. Knowledge and understanding of basic technological requirements for successful management of the vinification process. Developing the ability to independently solve practical problems, organize and control wine production. Setting up the experiments in the winery and draw conclusions based on the obtained results and their application on defined problems in production.</p>
<p>Syllabus:</p> <p><i>Theory</i></p> <p>Connection between ampelography, uvology and wine technology. Chemical composition of grapes. Determination of optimal harvest dates, primary grape processing, and processing of must and pomace. Managing alcoholic fermentation of must and pomace. Formation and transformation of different components during the process of fermentation and maceration. Malolactic fermentation. Production technology for white, rose and red wines. Equipment in the wine cellar. Post-fermentation processing, stabilization and finalization of wine. Defects and faults of wine. Wine bottling process. Sensory evaluation of wine.</p> <p><i>Practice</i></p> <p>Laboratory exercises in the field of physico-chemical analysis of grapes, must and wines, as well as wine production in laboratory conditions.</p>
<p>Required Reading:</p> <p>1. P. Ribéreau-Gayon, D. Dubourdieu, B. Donèche, A. Lonvaud: Handbook of Enology Vol. 1: The</p>

Microbiology of Wine and Vinifications, John Wiley & Sons, Chichester, 2006.

2. P. Ribéreau-Gayon, Y. Glories, A. Maujean, D. Dubourdieu: Handbook of Enology Vol. 2: The Chemistry of Wine Stabilization and Treatments, John Wiley & sons, New York, 2006.

3. J.L. Jacobson: Introduction to Wine Laboratory Practices and Procedures. Springer Science & Business Media, Inc., New York, 2006.

Weekly Contact Hours: 6

Lectures: 3

Practical work: 3

Teaching Methods:

Lectures and students group work

Knowledge Assessment (maximum of 100 points): 100

Pre-exam obligations	points	Final exam	points
Active class participation	5	written exam	
Practical work	20+5	oral exam	40
Preliminary exam(s)	30	
Seminar(s)			

The methods of knowledge assessment may differ; the table presents only some of the options: written exam, oral exam, project presentation, seminars, etc.