

CODE <b>BIOAGRI 07</b>	COURSE TITLE: <b>FLAVOUR BIOTECHNOLOGY</b>		ECTS: <b>3</b>	
COORDINATOR: <b>HENRYK JELEŃ</b>		DEPARTMENT: <b>FOOD SCIENCE AND NUTRITION</b>		
Course Category <b>BIOTECHNOLOGY</b>				
VOLUME (H) <b>30</b>			PERSONAL WORK (H)	
LECTURE: (H) <b>20</b>	PRACTICALS /LAB(H) <b>10</b>	PLACEMENT: (H)	PROJECT (H)	OTHER MODALITIES: (H)
EVALUATION:		OTHER MODALITIES:	LECTURER(S)	
EVALUATION MODALITIES				
ORAL INDIVIDUAL REPORT				
WRITTEN INDIVIDUAL REPORT				
FINAL ORAL EXAM				
FINAL WRITTEN EXAM	<b>x</b>			
COMMENTS OF EVALUATION:		TEACHING METHODS:		
SEMESTER: <b>SUMMER</b>		LANGUAGE: <b>ENGLISH</b>		
PERIOD: <b>2 WEEKS</b>		YEAR OF STUDY: <b>THIRD</b>		
OBJECTIVES				
To familiarize students with flavor chemistry and biotechnology, perspectives of biotechnology in flavors synthesis.				
CONTENTS				
<ul style="list-style-type: none"> <li>▪ Basic definitions in flavor chemistry;</li> <li>▪ Perception of aromas – human olfaction;</li> <li>▪ Tools for flavors analyses (isolation, gas chromatography (GC), mass spectrometry, GC-olfactometry, electronic noses);</li> <li>▪ Main groups of flavor compounds;</li> <li>▪ Flavor compounds produced in fermented foods;</li> <li>▪ Syntheses de novo, Bioconversions, biotransformations;</li> <li>▪ Non-volatile precursors of flavor compounds;</li> <li>▪ Enzymes in flavor formation; Binding flavor compounds;</li> <li>▪ Flavor biotechnology versus flavor chemistry – industrial perspective;</li> <li>▪ Try bioconversions in a lab scale, analyze products with state of art techniques.</li> </ul>				
GROUP SIZE: <b>5</b>		PRE-REQUIRES: <b>CHEMISTRY (ORGANIC, ANALYTICAL), BIOCHEMISTRY</b>		