

Course Unit Descriptor

<b>Study Programme:</b> Agricultural engineering and information systems			
<b>Course Unit Title:</b> Design of livestock buildings			
<b>Course Unit Code:</b> 19.PTI049			
<b>Name of Lecturer(s):</b> Miodrag, S, Zoranović			
<b>Type and Level of Studies:</b> Undergraduate			
<b>Course Status (compulsory/elective):</b> elective			
<b>Semester (winter/summer):</b> winter			
<b>Language of instruction:</b> Serbian			
<b>Mode of course unit delivery (face-to-face/distance learning):</b> face-to-face			
<b>Number of ECTS Allocated:</b> 6			
<b>Prerequisites:</b> -			
<b>Course Aims:</b> Getting theoretical and practical knowledge about the development of technical and technological projects of cattle, swine and poultry farms.			
<b>Learning Outcomes:</b> Qualifications student for making technical and technological projects of livestock farms.			
<b>Syllabus:</b> <i>Theory: Theoretical teaching Basis of design. Influential zootechnical and external factors on the construction of livestock Objects by type and category of livestock. Position livestock farms in relation to inhabited areas. Factors environmental pollution environment and the impact of livestock buildings on them (air, groundwater, etc.). Design: technical and technological lines nutrition, water supply, milking systems, evaporative cooling, ventilation with air purification, purification water heating systems interacting with a heat pump and system for purifying air and water systems manure and manure storage, manure processing and so on. Practice: Creating project tasks on individual chapters. Development of mathematical models in Mathcad U terrain exercises and presentation of individual solutions. Analysis of individual solutions from practice.</i>			
<b>Required Reading:</b>			
1. ASHRAE®HANDBOOK 2009. Inch-Pound Edition. American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. 1791 Tullie, N. E, Atlanta.			
2. C. H. BURTON and C. TURNER, 2003. MANURE MENAGEMENT. Treatment Strategies for Sustainable Agriculture 2nd Edition. Silsoe Research Institute.			
3. M. Navaratnasamy and J. J. R. Feddes. 2004. Odor Emissions from Poultry Manure/Litter and Barns. Final report submitted to Poultry Industry Council.			
4. El Houssine Bartali and Frederick Wheaton. 1999. CIGR Handbook of Agricultural Engineering.			
5. Pedersen, S. and Sällvik, K. 2002. Climatization of Animal Houses. 4th Report of Working Group on Heat and moisture production at animal and house levels.			
<b>Weekly Contact Hours: 4</b>		<b>Lectures: 2</b>	<b>Practical work: 2</b>
<b>Teaching Methods:</b> Oral lectures with active involvement of students, slides and movies via video link, display equipment in service.			
<b>Knowledge Assessment (maximum of 100 points):</b>			
<b>Pre-exam obligations</b>	points	<b>Final exam</b>	points
Active class participation	10	written exam	40
Practical work	15	oral exam	20
Preliminary exam(s)	15	.....	
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.			