

Subject name	Ergonomics in Agricultural Engineering	
Subject code	E.1.EAE.SC.ECTIE.A	
Department	Institute of Machinery Management, Ergonomics and Production Processes	
Faculty	Faculty of Production and Power Engineering	
Subject supervisor/Lecturer	Professor Tadeusz Juliszewski	
General information	Teaching period	Winter semester
	ECTS credit	5
	Lectures total	15 hrs
	Lab practical	15 hrs
Objective and general description	Man-machine relations from the engineering point of view will be presented. Influence of the physical environment (e.g. vibration, noise, microclimate, air pollution, lighting) on the operators will be introduced. Students gain the skills of methods of measurement ergonomic parameters of technical equipment in agriculture.	
Lectures , 15 hours	<ol style="list-style-type: none"> 1. Role of comfort, health and safety – 1 hour 2. Work load on machine operators - 1 hour 3. Technical aids for the operator (ergonomic standards) – 1 hour 4. Operators seating accommodation and access – 1 hour 5. Vibrations – 2 hours 6. Noise – 2 hours 7. Air pollution – 2 hours 8. Microclimate – 2 hours 9. Lighting – 1 hour 10. Tractor safety – 2 hours 	
Lab practicals 15 hours	Methods of measurements: <ol style="list-style-type: none"> 1. Vibrations – 2 hours 2. Noise - 2 hours 3. Air pollution - 2 hours 4. Microclimate - 2 hours 5. Lighting - 2 hours 6. Work load - 2 hours 7. Evaluation of work place dimensions – 3 hours 	
References	<ol style="list-style-type: none"> 1. CIGR Handbook of agricultural engineering. Vol III. Plant production engineering., Published by the American Society of Agricultural Engineers, 1999. 2. Grandjean E. Physiologische Arbeitsgestaltung. Leitfaden der Ergonomie. Ott Verlag Thun, 1987. 3. Schmitdke H. et. al. Ergonomie 1. Ergonomie 2. Carl Hanser Verlag, München, Wien, 1974. 4. Koradecka D. et. al. Bezpieczeństwo pracy i ergonomia. Centralny Instytut Ochrony Pracy, Warszawa 1997. 5. Juliszewski T., Kiełbasa P. Urządzenia sygnalizacyjne ciągników i maszyn rolniczych. 	

	Państwowe Wydawnictwo Rolnicze i Leśne, Poznań 2010.
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