

<b>Subject name</b>	<b>Storage of Agricultural Raw Materials</b>	
<b>Subject code</b>	<b>E.1.SAEM.SC.ECTIE.A</b>	
<b>Department</b>	<b>Institute of Machinery Management, Ergonomics and Production Processes</b>	
<b>Faculty</b>	<b>Faculty of Production and Power Engineering</b>	
<b>Subject supervisor/Lecturer</b>	<b>Dr hab. Barbara Krzysztofik, prof. UR</b>	
<b>General information</b>	<b>Teaching period</b>	<b>winter and summer semester</b>
	<b>ECTS credit</b>	<b>3</b>
	<b>Lectures total</b>	<b>20</b>
	<b>Project</b>	<b>10</b>
<b>Objective and general description</b>	The aim of the course is to acquaint students with the requirements for storage of cereals, fruits, vegetables and potatoes. Analysis of the processes that occur during storage, ways to reduce losses. Selection of parameters and their impact on the quality characteristics of stored raw materials, storage and design for the type of raw material.	
<b>Lectures 20 hours</b>	<ol style="list-style-type: none"> <li>1. Life processes and the physiological changes that occur during the storage of cereals, fruits, vegetables, potatoes and food – 3h</li> <li>2. Factors affecting the storage life of cereals, fruits, vegetables, potatoes and food – 3h.</li> <li>3. Optimal conditions for storage of cereals, fruits, vegetables potatoes and food 3h.</li> <li>4. Modern storage techniques -3h,</li> <li>5. Packaging used for food storage – 4h.</li> <li>6. Transport and sorting strings in storages – 3h.</li> </ol>	
<b>Project 10 hours</b>	<ol style="list-style-type: none"> <li>1. Project including choosing of technical solution for the storage products – 10h.</li> </ol>	
<b>Assessment method</b>	<p>The material of instruction will be included based on an oral examination or written.</p> <p>The projects will prepare a written and electronic form will constitute the basis for the completion of the project</p>	
<b>References</b>	<ol style="list-style-type: none"> <li>1. Adamicki F., Czerko Z. 2002. Storage of fruits and vegetables. PWRiL, Poznań;</li> <li>2. Krzysztofik B. 2008. Impact of changes to the place of storage on quality characteristics of potato tubers. Acta Agrophysica 11(2);</li> <li>3. Szyszło J. 2002. Techniques and food storage technologies in cereal. IBMER Warszawa, ss. 91, ISBN 83-86264-80-2;</li> <li>4. Krzysztofik B., Łapczyńska-Kordon B. 2008. Effect of methods and storage time on selected sensory characteristics of apples. Inżynieria Rolnicza. Nr 2 (100). s. 121-128</li> </ol>	