Subject name	**Plant Cell Biology**	
Subject code	**E.1l.PCB.SC.ECTIE.O**	
Department	**Unit of Botany and Plant Physiology, Institute of Plant Biology and Biotechnology**	
Faculty	**Faculty of Biotechnology and Horticulture**	
Subject supervisor/Lecturer	**Alina Wiszniewska, Ph.D.; Barbara Piwowarczyk, Ph.D.**	
General information	**Teaching period**	**summer semester**
	ECTS credits	**6**
	Lectures total	**6**
	Lab classes	**24**
Objective and general description	The objective of the course is to familiarize with structure and functions of plant cells with the emphasis of their unique properties. Classes provide practice on cytological techniques including sectioning and staining, and various microscopic methods.	
Lectures **3 × 2 hours**	1. Unique properties of plant cell 2. Origin and evolution of plant cell 3. Novel methods in plant cell research	
Laboratories **24 hours**	1. Living and nonliving plant cells (3 h) 2. Plant cell wall and its modifications (4 h) 3. Plastids – types and structure (4 h) 4. Storage materials in plant cells (4 h) 5. Functions of plant vacuoles (4 h) 6. Plant cell nucleus and cell division (3 h) 7. Plant cell as material for biotechnology (2 h)	
References	R. Larry Peterson, Carol A. Peterson and Lewis H. Melville. 2008. Teaching Plant Anatomy Through Creative Laboratory Exercises – chosen chapters Jane B. Reece, Lisa A. Urry, Michael L. Cain, Steven A. Wasserman, Peter V. Minorsky, Robert B. Jackson. 2011. *CAMPBELL* BIOLOGY. 9th edition. Unit 2: The Cell**.**	