General Information			
Course name and code	**Plant Physiology ÚBEV/FR1/10**	**ECTS Credits**	**6**
		Semester	**2nd (Summer) Bachelor & Master Degree**

Aims

Overview of all important physiological processes in plant organisms. Basic lab practice in plant physiology.

Contents

Water in plant, mineral nutrition, photosynthesis, pholem transport, respiration, lipid biosynthesis, heterotrophy, metabolism of macronutrients, secondary metabolism, growth and development, plant hormones, photoreceptors, dormancy, flowering, plant movements, stress physiology Lab practicals: Quantitative analyses of nutrients in dust. Separation of assimilation pigments by TLC. Quantitative analyses of chlorophyll a and b. Biotest of cytokinins. Qualitative and quantitative analyses of sugars. HPLC separation of glucose and fructose. Measurements of respiration by selective electrode. Measurement of total nitrogen by Kjeldahl method. Qualitative analyses of proteins. Activity of some enzymes in potato and pea. Colour of anthocyanins at different pH. Germination of seeds.

Evaluation

10 finished lab protocols, oral final exam.

Bibliography

Taiz L. and Zeiger E., Plant Physiology Fifth edition, Sinauer Associates, Inc.; Sunderland 2010