

SYLLABUS
Fall and spring semesters 2026/2027
Lecturer: dr hab. Ewa M. Kalemba, dr hab. Leszek Karliński

Title of the course	Selected topics in woody plant biology
Institution where the course will take place	Institute of Dendrology Polish Academy of Sciences
Language	English
Learning objectives	P8S_WG – gains organized knowledge of methods and research techniques used in the range of problems in tree biology and related disciplines, is familiar with analytical tools and methods, can describe the principles behind the methods, and define the scope of questions possible to address with available research techniques. P8S_WK – knows and understands: the fundamental dilemmas of modern civilization, especially related to the advanced biotechnological tools used in tree biology; the economic, legal, ethical and other essential conditions of conducting scientific research. P8S_UW – is able to identify an appropriate analytical approach for specific research problems and interpret data in woody plant biology. P8S_UK – is able to identify and discuss the advantages and disadvantages of particular methods in addressing research problems introduced in the subject. PhD student is ready to critically evaluate the scientific achievements in tree biology; understands and appreciates the significance of scientific investigations in the discussed aspects of woody plant science. P8S_KK – understands and feels the need for continuous training to follow rapid progress in knowledge related to biological sciences. P8S_UU / P8_UO – is able to plan and implement research within a research group and with other research teams. P8S_KR – can discuss results and current scientific problems in tree biology respecting the work and experience of colleagues.
Learning outcomes, according to Attachment 2 to the Programme of the Study (valid from October 1st 2026)	P8S_WG (pkt. 1,2,4), P8S_WK (pkt. 1, 4), P8S_KR (pkt. 1, 2), P8S_KO (pkt. 2), P8S_UW (pkt. 1,2), P8S_UU/UO (pkt. 1), P8S_KK (pkt. 1), P8S_UK (pkt. 2,3)
Type of the course	Obligatory seminar
Semester/Year	Fall semester 2026/2027
Name of the lecturer	dr hab. Ewa M. Kalemba (fall semester), dr hab. Leszek Karliński (spring semester)
Name of the examiner	credits: dr hab. Ewa M. Kalemba

Teaching methods	Presentation and didactic discussion. Student: own work with the literature and presentation
Attendance requirements	Attendance is obligatory, except for documented earlier planned participation in conferences, training courses, and scientific workshops related to the implementation of the doctoral thesis, sick leave, a significant life-event, or an emergency.
Number of ECTS points	2 ECTS
Number of lectures	10
Didactic methods	Case study method and didactic discussion. Student: own work with the literature.
Methods of verification and assessment of learning outcomes	Assessment methods: - active participation in discussion - presentation
Conditions of a positive evaluation	Attendance at all planned seminars and active participation in discussion.
Course content	• Woody plant's biology and physiology • Plant's physiological and biochemical activities • Plant reproduction and tree genetics • Woody plant's interaction with the environment • The scientific method and research
Literature of the course materials	Literature will be provided during the lectures