

| | |
|---|---|
| name of the module | SP2-11, Major module II – “Advanced topics in plant sciences” |
| start | Lecture: Mid October; lab project individually |
| duration | Lecture: Mid October – December, Thursdays 9 – 11 a.m. Lab project: 8 weeks – can be split in 2x 4 weeks in two different labs |
| location | University of Freiburg, Faculty of Biology |
| contact person | Thomas Kretsch, Ralf Reski (Eva Decker) |
| ECTS (regular/max) | 21 |
| examination | Written protocol (graded) like a scientific thesis (20 - 30 pages) about at least one of the 4-weeks lab projects; oral examination (45' - 60') with two teachers, one of them responsible for the practical part, the other one for the lecture |
| graded | Yes; 50% protocol, 50% oral examination |
| description of content (approx. ½ page) | <p>Lecture – Overview of specialized topics and concepts of plant sciences which haven't been addressed before in Major module I:</p> <p>Biotechnological aspects:</p> <ul style="list-style-type: none"> ▪ Glycoprotein production in moss bioreactors <p>Response to biotic factors:</p> <ul style="list-style-type: none"> ▪ Controlling symbiotic host cell infection; ▪ Signalling during Rhizobia-plant interactions ▪ Pathogenic infection process <p>Developmental biology, signal integration and control:</p> <ul style="list-style-type: none"> ▪ Epigenetic adaptation of plant stem cells to environmental signals ▪ Auxin transport ▪ Light regulation ▪ Cross-talk between light- and additional signaling pathways ▪ maintenance of cellular homeostasis <p>Evolution:</p> <ul style="list-style-type: none"> ▪ Adaptation to land <p>Lab project - Individually organized lab projects in one or two of the plant-science labs at the Faculty of Biology of the University of Freiburg to prepare for a Master thesis within modern plant sciences</p> |