**Learning-Outcomes**

**Background on Plant-Microbe Interactions:**

Students should

* know examples of plant pathogens, their infection processes and differences in lifestyles
* be able to use the terminology to describe plant-pathogen interactions
* know about effectors and their function in virulence and defense
* know about local and systemic plant defence mechanisms
* describe basic properties of PTI (PAMP triggered immunity; PAMPs; Pattern Recognition Receptors)
* describe basic properties of ETI (Effector Triggered Immunity)
* know about effector recognition by NLRs (Nucleotide-binding Leucine-rich repeat Receptors)
* be able to explain the ZickZack-Model on evolution of plant-pathogen interactions
* know similarities and differences in plant and animal immunity

**Methods in Plant-Microbe Interaction:**

Students should know

* how to quantify bacterial/fungal propagation in plants
* how to study cell-layer specific expression
* how to isolate transcription factors regulating a promoter of choice