WP 03	International MSc. Horticultural Sciences	Hydroponical Systems in Horticulture	M

Contents and Learning Objectives	Contents: - Definition and principle of von hydroponical (soil less) systems for horticultural crops, - Technical characteristics and technological systems in hydroponics (substrate culture, water culture, aeroponics, - Substrates, their characteristics, evaluation and standardisation - Calculation of water and nutrient supply for different hydroponical systems - Cultivation methods of selected horticultural crops in hydroponics Learning Objectives: - have a clear understanding of different hydroponical systems and are able to plan such systems for different crops - are able to evaluate different substrates by use of modern physical and chemical methods - are able to calculate the amount of water and the composition of nutrient solutions for hydroponics - to know methods for regulating of processes in hydroponics and analysing growth factors in the rhicosphere and biomass production
Methods of instruction	lectures, practical training, dealing with scientific publications, self study (English or German)
Qualifications necessary for attendance	– BSc. Horticultural Sciences – BSc. Agricultural Sciences - Use of Moodle learning management system
Recognition of the module	MSc. course , Process und Quality management in agriculture and horticulture (WPM)
Precondition for credit points	Protocols Oral examination
Frequency of offer	2. Semester, summer semester
Workload	Contact hours (60), preparation for practice and seminars (60 h), self study (60 h); 6 Credit points
Duration	1 Semester
Lecturer	Doz. Dr. Dr. Michael Böhme michael.boehme@rz.hu-berlin.de