

2017-12-13

Plant-microbe interactions Växt-mikrobinteraktioner

PhD course (6 hec) in association with BI1002

COURSE SCHEDULE 2018

All lectures are in Undervisningshuset (U-hus; Education Building, Rooms K and L) or VHC hus (Audhumbla), central Ultuna, while all other theoretical exercises are in the rooms indicated. Compulsory parts are marked *.

Week 3

- Tue 16/1 13.15-15.00 **Course introduction** (Daniel Hofius) (BioC Room Room C216)*
- Wed 17/1 09.15-10.00 **L1:** Significance of plant diseases and disease resistance (Jari Valkonen) (U-hus Room L)
10.15-11.00 **L2:** Defence mechanisms of plants (Daniel Hofius) (U-hus Room L)
13.15-15.00 **L3:** Nematode-plant interactions (Maria Viketoft) (U-hus Room L)
- Thu 18/1 No teaching
- Fri 19/1 09.15-11.00 **L4:** Infection by viruses (Anders Kvarnheden) (U-hus Room L)
13.15-15.00 **L5:** Infection by biotrophic fungi and oomycetes (Asko Hannukkala) (U-hus Room L)

Week 4

- Tue 23/1 13.15-15.00 **Study questions** (BioC Room A-436)
- Wed 24/1 09.15-11.00 **L6:** Fungal and oomycete effectors (Christina Dixelius) (U-hus Room L)
13.15-15.00 **L7:** Infection by necrotrophic fungi (Åke Olson) (U-hus Room L)
- Thu 25/1 No teaching
- Fri 26/1 09.15-11.00 **L8:** Infection by bacteria (May-Bente Brurberg) (U-hus Room K)
13.15-15.00 **L9:** Bacterial virulence factors (Minna Haapalainen) (U-hus Room K)

Week 5

- Tue 30/1 13.15-15.00 **Study questions** (BioC Room A-436)
- Wed 31/1 09.15-11.00 **L10:** Infection by Agrobacterium (Elina Roine) (U-hus Room K)
13.15-15.00 **L11:** Signalling in plant defence I, Plant hormones (Kirk Overmyer) (U-hus Room K)
- Thu 1/2 13.15-15.00 **Lab I:** Introduction of lab projects (BioC Room A-436)
- Fri 2/2 09.15-11.00 **L12:** Signalling in plant defence II, PCD (Daniel Hofius) (U Room L)
13.15-15.00 **L13:** Transcriptional responses to abiotic stress (Kurt Fagerstedt) (U-hus Room L)

Week 6

- Tue 6/2 13.15-15.00 **Study questions** (BioC Room A-436)
- Wed 7/2 09.15-11.00 **L14:** Transgenic resistance to pathogens (Anders Kvarnheden)
(VHC hus Audhumbla)
13.15-15.00 **L15:** Defence to viruses by gene silencing (Jari Valkonen)
(VHC hus Audhumbla)
- Thu 8/2 No teaching
- Fri 9/2 09.15-11.00 **L16:** Biological control of plant diseases (Johan Meijer)
(U-hus Room L)
13.15-15.00 **L17:** Gene-for-gene interaction: molecular recognition (Jari Valkonen)
(U-hus Room L)

Week 7

- Tue 13/2 13.15-16.00 **Study questions** (BioC Room A-436)
- Wed 14/2 09.15-11.00 **L18:** Plant disease dynamics in natural populations (Anna-Liisa Laine)
(U-hus Room K)
13.15-15.00 **L19:** Symbiotic interactions with bacteria (Per-Olof Lundquist)
(U-hus Room K)
- Thu 15/2 No teaching
- Fri 16/2 09.15-11.00 **L20:** Fungal symbiosis and parasitism; nutrients and ectomycorrhiza
(Malin Elfstrand) (U-hus Room K)
13.15-15.00 **L21:** Molecular regulation of mycorrhizal interactions (Malin Elfstrand)
(U-hus Room K)

Week 8

- Tue 20/2 13.15-15.00 **Study questions** (BioC Room A-436)
- Wed 22/2 No teaching
- Thu 23/2 No teaching
- Fri 24/2 No teaching **Literature Project work:** Written reports handed in

Week 9

27/2 - 2/3 **Lab I: Practical part in research groups**

Week 10

- Tue 6/3 No teaching
- Wed 7/3 No teaching
- Thu 8/3 10.15-12.00 **Questions before the examination** (BioC Room A-436)
- Fri 9/3 09.15-12.00 **Written examination** (BioC Room C212)*

Week 11

Tue 13/3 No teaching **Examination home correction:** handed in

Wed 14/3 No teaching

Thu 15/3 No teaching

Fri 16/3 09.15-11.00 **Discussion of the exam** (BioC Room A-402)
11.15-12.00 **Course evaluation** (BioC Room A-402)