

	Lecture/Discussion
	Self work
	Lectures together with Plant Pathology course
	Lab work/field trips in Uppsala

**Ecology & Management of Diseases and Pests of Forest Trees**

**SG0225**

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>36</b>	2-Sep-2024	3-Sep-2024	4-Sep-2024	5-Sep-2024	6-Sep-2024
Time					
9:30-10:00	Introduction to the course (AM) <i>live via Zoom</i>	Introduction to top assignments (AM)	Preparation for top assignments	Preparation for top assignments	Preparation for top assignments
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	General forest pathology lecture (ME) <i>live via Zoom</i>	General insect lecture (MKL,GN) <i>live via Zoom</i>	Climate change and pest insects (MKL,HB) <i>live via Zoom</i>	Climate change and pathogens (JS)	Preparation for top assignments
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Fungal Pathogens: Systematics of the fungal kingdom (DFJ)	Canker diseases (JS)		Introduction to plant viruses, plant virology (AK)	Preparation for top assignments
14:30-15:00	Break	Break		Break	Break
15:00-16:00	Fungal Pathogens: Systematics of the fungal kingdom (DFJ)	Fungal pathogens, disease cycles, survival and spread (BA)		Preparation for top assignments	Preparation for top assignments

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>37</b>	9-Sep-2024	10-Sep-2024	11-Sep-2024	12-Sep-2024	13-Sep-2024
Time	<i>In Uppsala</i>	<i>In Uppsala</i>	<i>In Uppsala</i>	<i>In Uppsala</i>	<i>In Uppsala</i>
9:00-10:00	DNA work (KD) BÖL	Entomology field trip (MJ)	Forest pathology field trip (AM, KD)	Introduction to the Metabarcoding project (KC) Ulls hus	Diagnostics of tree diseases (AM, KD) BÖL
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	DNA work (KD) BÖL	Entomology field trip (MJ)	Forest pathology field trip (AM,KD)	Introduction to the Metabarcoding project (KC) Ulls hus	Diagnostics of tree diseases (AM, KD) BÖL
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	DNA work (KD) BÖL	Entomology field trip (MJ)	Forest pathology field trip (AM,KD)	Introduction to the Metabarcoding project (KC) Ulls hus	
14:30-15:00	Break	Break	Break	Break	
15:00-16:00	DNA work (KD) BÖL	Entomology field trip (MJ)	Forest pathology field trip (AM,KD)	Introduction to the Metabarcoding project (KC) Ulls hus	

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>38</b>	16-Sep-2024	17-Sep-2024	18-Sep-2024	19-Sep-2024	20-Sep-2024
Time					
9:00-10:00	Plant disease resistance (JY)	Fungal detection and monitoring (JS)	Preparation for top assignments	Preparation for top assignments	Work on the Metabarcoding project
10:00-10:30	Break	Break	Beak	Beak	Break
10:30-12:00	Introduction to the Gene for Gene hypothesis (BA)	Plant pathogenic bacteria Dr. Minna Pirhonen, Univ. of Helsinki	Preparation for top assignments	Preparation for top assignments	Work on the Metabarcoding project
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Preparation for top assignments	Molecular characterisation of fungal pathogens (MK)		Preparation for top assignments	Work on the Metabarcoding project
14:30-15:00	Break	Break		Beak	Break
15:00-16:00	Preparation for top assignments	Preparation for top assignments		Preparation for top assignments	Work on the Metabarcoding project

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>39</b>	23-Sep-2024	24-Sep-2024	25-Sep-2024	26-Sep-2024	27-Sep-2024
Time					
9:00-10:00	Discussion: global change and pests & diseases (MKL,HB,JS) <i>live via Zoom</i>	Molecular basis of defence & resistance breeding (ME) <i>live via Zoom</i>	Introduction to case studies (AM)	Preparation for top assignments	Work on the Metabarcoding project
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	Molecular basis of conifer defence against pathogens (ME)	Plant pathogenic nematodes (MV)	Rust diseases (BS)	Game damage (FW)	Work on the Metabarcoding project
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Resistance breeding in trees (ME)	Preparation for top assignments		Preparation for top assignments	Work on the Metabarcoding project
14:30-15:00	Break	Break		Break	Break
15:00-16:00	How pathogens attack plants; The molecular basis of plant defense (MD)	Preparation for top assignments		Preparation for top assignments	Work on the Metabarcoding project

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>40</b>	30-Sep-2024	1-Oct-2024	2-Oct-2024	3-Oct-2024	4-Oct-2024
Time					
9:00-10:00	Epidemiology (AB)	Ash dieback in Europe (AM)	Invasive pathogens (JS)	Invasive pests (MS)	Work on the Metabarcoding project
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	Grammeniella disease (KD)	Damping off, root pathology and soil born pathogens (DFJ)	Predicting and forecasting forest diseases (JS)	Invasive species and new emerging diseases (JS)	Work on the Metabarcoding project
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Forest Phytophthoras (MR)	Root rot from practice to genomics and back again (AO)		Biological control of root-rot (AM)	Work on the Metabarcoding project
14:30-15:00	Break	Break		Break	Break
15:00-16:00	Dutch elm disease (AM)	Forest tree nursery problems (AM)		Diplodia disease (LB)	Work on the Metabarcoding project

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>41</b>	7-Oct-2024	8-Oct-2024	9-Oct-2024	10-Oct-2024	11-Oct-2024
Time					
9:00-10:00	Student presentation of top assignments <i>live via Zoom</i>	Student presentation of top assignments <i>live via Zoom</i>	Work on case studies	Introduction to Skogsskada exercise (AM)	Fungi-insect interactions (KD)
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	Student presentation of top assignments <i>live via Zoom</i>	Student presentation of top assignments <i>live via Zoom</i>	Work on case studies	Skogsskada exercise	Forecasting of plant disease epidemics and the need for pesticide spray (BA)
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Student presentation of top assignments <i>live via Zoom</i>	Student presentation of top assignments <i>live via Zoom</i>		Skogsskada exercise	Mechanical damage and pathogen attack (RV)
14:30-15:00	Break	Break		Break	Break
15:00-16:00	Chemical disease control (BA)	Work on case studies		Preparation for pathology text 1	Preparation for pathology text 1

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>42</b>	14-Oct-2024	15-Oct-2024	16-Oct-2024	17-Oct-2024	18-Oct-2024
Time					
9:00-10:00	Discussion on Pathology text 1 (EB) <i>live via Zoom</i>	Preparation for entomology text 1	Discussion on Entomology text 1 (FWr, HB) <i>live via Zoom</i>	Work on case studies	Preparation for pathology text 2
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	Biological disease control using microbial BCAs (DFJ)	Preparation for entomology text 1	Submitting metabarcoding project reports	Work on case studies	Preparation for pathology text 2
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Pathogens and Mycorrhiza (AD)	Preparation for entomology text 1		Work on case studies	Preparation for pathology text 2
14:30-15:00	Break	Break		Break	Break
15:00-16:00	Gender & equality aspects in forestry (AM)	Preparation for entomology text 1		Work on case studies	Preparation for pathology text 2

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>43</b>	21-Oct-2024	22-Oct-2024	23-Oct-2024	24-Oct-2024	25-Oct-2024
Time					
9:00-10:00	Tree diversity and pathogens	Preparation for entomology text 2	Discussion on Entomology text 2 (FWr, MKL) <i>live via Zoom</i>	Pests and diseases in southern Europe (JS)	Student case study presentations <i>live via Zoom</i>
10:00-10:30	Break	Break	Break	Break	Break
10:30-12:00	Conflicts nature conservation-forest protection (SK)	Preparation for entomology text 2	Abiotic damages (AM)	Tree stress and complex diseases (JS)	Student case study presentations <i>live via Zoom</i>
12:00-13:00	Lunch	Lunch	Lunch	Lunch	Lunch
13:00-14:30	Discussion on Pathology text 2 (EB) <i>live via Zoom</i>	Preparation for entomology text 2		Work on case studies	Student case study presentations <i>live via Zoom</i>
14:30-15:00	Break	Break		Break	Break
15:00-16:00	Work on case studies	Preparation for entomology text 2		Work on case studies	Work on case studies

Week	Monday	Tuesday	Wednesday	Thursday	Friday
<b>44</b>	28-Oct-2024	29-Oct-2024	30-Oct-2024	31-Oct-2024	1-Nov-2024
Time					
9:00-10:00	Student case study presentations <i>live via Zoom</i>	Work on exam questions	Work on exam questions	Work on exam questions	
10:00-10:30	Break	Break	Break	Break	
10:30-12:00	Student case study presentations <i>live via Zoom</i>	Work on exam questions	Work on exam questions	Work on exam questions	
12:00-13:00	Lunch	Lunch	Lunch	Lunch	
13:00-14:30	Student case study presentations <i>live via Zoom</i>	Work on exam questions		Work on exam questions	
14:30-15:00	Break	Break		Break	
15:00-16:00	Work on exam questions	Work on exam questions		Handing in exam	

Note: smaller changes in the course schedule may still occur.

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