

**Time Schedule for Applied Plant Biotechnology (APB), 15 HEC (BI1406)
2024**

Date	Time	Topic and activity	Location *	Teacher
<u>Week 36</u>				
Sept 2 <i>(Mon)</i>	13:15-16:00	Course introduction (L) Genetic transformation (L)	Art 4*	LZ
Sept 3 <i>(Tue)</i>	09:00-12:00 13:00-16:00	Start Lab. 1- Transformation (P) ¹ Group 1-4 Group 5-8	S*	Wes
Sept 4 <i>(Wed)</i>	09:15-12:00	Tissue culture & Organogenesis (L)	Grodden	LZ
Sept 5 <i>(Thurs)</i>	13:15-16:00	Molecular biological techniques (L)	Grodden	IL
Sept 6 <i>(Fri)</i>	09:00-13:00	Continue Lab 1-washing (P) ¹	S*	Wes
<u>Week 37</u>				
Sept 9 <i>(Mon)</i>	09:00-12:00 13:00-16:00	Start Lab 2-meristem establishment ¹ (P) Group 1-4 Group 5-8	Kemisal S*	Wes
Sept 10 <i>(Tue)</i>	13:00-16:00	<i>Föreläsning –reserve for in case needed!</i>	<i>Grodden</i>	
Sept 11 <i>(Wed)</i>	09:15-12:00	Gene cloning strategies (L)	Grodden	IL
Sept 12 <i>(Thurs)</i>	09:15-12:00 13:30-17:00	New Plant Breeding Technologies (L) Lab 4 Gene editing – Protoplast isolation (P) All groups	Grodden S*	LZ Wes
Sept 13 <i>(Fri)</i>	09:00-14:00	Lab 4 Gene editing – Protoplast transfection (P) All groups	S*	Wes

<u>Week 38</u>				
Sept 16 (Mon)	09:00-12:00 13:00-16:00	Lab 4 Gene editing - DNA extraction and PCR (P) Group 1-4 Group 5-8	Kemisal	Wes
Sept 17 (Tue)	09:00-12:00 13:00-16:00	Lab 4 Gene editing - cont. PCR-cont. QC & amplicon sequencing (P) Group 1-4 Group 5-8	Kemisal	Wes
Sept 18 (Wed)	10:15-12:00	Proteomics (L)	Grodden	EA
Sept 19 (Thurs)	09:00-12:00 13:00-16:00	Lab 5 qRT-PCR - RNA extraction (P) Group 1-4 Group 5-8	Kemisal	Wes
Sept 20 (Fri)	10:00-12:00	Question about case studies ² (optional)	Zoom**	LZ
<u>Week 39</u>				
Sept 23 (Mon)	09:00-13:00	Lab 5 qRT-PCR - cDNA synthesis (P)	Kemisal	Wes
		Change medium Lab 1 and 2 (P)	S*	Wes
		All groups		
Sept 24 (Tue)	09:00-12:00 13:00-16:00	Lab 5 qRT-PCR - qRT-PCR (P) Group 1-4 Group 5-8	Kemisal	Wes
Sept 25 (Wed)	09:00-12:00	Lab 5 qRT-PCR - results (P) All groups	Kemisal	Wes
Sept 26 (Thurs)	10:15-12:00 13:15-16:00	Global gene expression analysis in plants (L) Bioinformatics (L)	Grodden Grodden	EAL PH
<u>Week 40</u>				
Sept 30 (Mon)	09:00-13:00 13:00-17:00	Start Lab3 –rooting of stem disk and change medium after 3 hours ¹ (P) Group 1-4 Group 5-8	S*	Wes
Oct 1 (Tue)	09:30-12:00	Study visit (Intertek Scanbi Diagnostics)	Alnarp	PVR

	13.15-16.00	Development and EU approval of a GM potato and update about how EU will regulate precision breeding (L)	Grodden	PH
Oct 2 (Wed)	09:15-12:00	Gene editing of rapeseed (L)	M*	SK
Oct 3 (Thurs)	09:15-12:00	Presentation of literature study (L)	Art 4*	LZ
	13:00-14:30	Change medium for Lab 3 (after 3 days) (P)	S*	Wes
	14:30-16:00	Group 1-4 Group 5-8		
<u>Week 41</u>				
Oct 7 (Mon)	09:15-12:00	Presentation of literature study (L)	M*	LZ
	13:00-16:00	Presentation of literature study (L)	Art 4*	
Oct 11 (Fri)	09:00-12:00	Lab 4 Gene editing - NGS sequencing results: discussion and info about sgRNA design (P) <i>(Note: this date maybe changed due to the uncertainty in obtaining the sequence results from the company!)</i>	Kemisal	Wes
<u>Week 42</u>				
Oct 15 (Tue)	10:00-12:00	Questions about the case study (optional) ²	Zoom**	LZ
Oct 17 (Thurs)	09:00-12:00	<i>Alternative date for presenting the sequencing results scheduled on 11 Oct.!!</i>	Art 4*	Wes
<u>Week 43</u>				
Oct 22 (Tue)	09:00-12:00 13:00-16:00	Finishing all labs (P) (gus staining if shoots are available)	Mikroskop Kemilab	Wes
<u>Week 44</u>				
Oct. 24 (Thurs)	09:15-12:00 13:00-16:00	Presentations/discussions of labs (L) Presentations/discussions of labs (L)	Grodden	LZ, Wes
<u>Week 45</u>				
Oct. 29 (Tue)	09:15-12:00 13:00-16:00	Presentation of case studies (L)	Skördan	LZ
Oct. 31 (Thurs)	09:15-12:00 13:00-16:00	Presentation of case studies (L) Presentation of case studies (L)	Art 4*	LZ
		Deadline for handing in final report on case study		

***Abbreviations and explanations:**

L=lecture
P=practice

Art 4: Articum 4 in Articum
Kemisal in Articum
M: Mikroskop in Articum
S: Sterile lab in Articum, beside the Kemisal.
Grodden in Agricum
Skördan in Agricum

¹Medium will be prepared by teacher.

²If you have any questions, you can bring them up in these occasions. It is also ok to feel free to send your questions to the course leader or other course teachers by email any time.

*Be aware that the literature study and case study are not the same thing.

**The time you will spend on literature study and case study is not shown in the schedule and you will need to arrange it by yourself.

Teachers

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