**Time Schedule for Applied Plant Biotechnology (APB), 15 HEC (BI1406) 2025**

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| **Date** | **Time** | **Topic and activity** | **Location\*** | **Teacher** |
|  |  |  |  |  |
| **Week 36**  **Sept 1**  *(Mon)* | 13:00-16:00 | Course introduction (L)  Genetic transformation (L) | Art 4\* | LZ |
| **Sept 2**  *(Tue)* | 09:00-12:00  13:00-16:00 | Start Lab. 1- Transformation (P) 1  Group 1-4  Group 5-8 | S\* | Wes |
| **Sept 3**  *(Wed)* | 09:00-12:00 | Tissue culture & Organogenesis (L) | Art 4\* | LZ |
| **Sept 4**  *(Thurs)* | 09:00-12:00 | Molecular biological techniques (L) | Art 4\* | IL |
| **Sept 5**  (*Fri*) | 09:00-13:00 | Continue Lab 1-washing (P) 1 | S\* | Wes |
| **Week 37**  **Sept 8**  *(Mon)* | 09:00-12:00  13:00-16:00 | Start Lab 2-meristem establishment1 (P)  Group 1-4  Group 5-8 | Kemisal  och S\* | Wes |
| **Sept 10**  *(Wed)* | 09:00-12:00 | Gene cloning strategies (L) | Art 4\* | IL |
| **Sept 11**  *(Thurs)* | 09:00-12:00  13:00-17:00 | New Plant Breeding Technologies (L)  Lab 4 Gene editing – Protoplast isolation (P)  All groups | Art 4  S\* | LZ  Wes |
| **Sept 12**  *(Fri)* | 09:00-14:00 | Lab 4 Gene editing – Protoplast transfection (P)  All groups | S\* | Wes |
| **Week 38**  **Sept 15**  (*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 16**  *(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**  *(Thurs)* | 09:00-12:00  13:00-16:00 | Lab 5 qRT-PCR - RNA extraction (P)  Group 1-4  Group 5-8 | Kemsal | Wes |
| **Sept 19**  *(Fri)* | 9:00-12:00 | Reserve for lecture (L) | Art 4 |  |
| **Week 39**  **Sept 22**  *(Mon)* | 09:00-13:00 | Lab 5 qRT-PCR - cDNA synthesis (P)  Change medium Lab 1 and 2 (P)  All groups | Kemisal  S\* | Wes  Wes |
| **Sept 23**  *(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 24**  *(Wed)* | 09:00-12:00 | Lab 5 qRT-PCR - results (P)  All groups | Kemisal | Wes |
| **Sept 25**  *(Thurs)* | 09:00-11:00  11:00-12:00 | Proteomics (L)  Question about case studies2 (optional) | Art 4  Art 4 | EA  LZ |
| **Sept 26**  *(Fri)* | 09:00-12:00 | Gene cloning of rapeseed | Art 4 | SK |
| **Week 40**  **Sept 29**  *(Mon)* | 09:00-13:00  13:00-17:00 | Start Lab3 –rooting of stem disk and  change medium after 3 hours1 (P)  Group 1-4  Group 5-8 | S\* | Wes |
| **Sept 30**  *(Tue)* | 09:30-12:00  13.00-16.00 | Study visit - Intertek Scanbi Diagnostics  Development and EU approval of a GM potato and update about how EU will regulate precision breeding (L) | Alnarp  Art 4 | PVR  PH |
| **Oct 2**  *(Thurs)* | 13:00-14:30  14:30-16:00 | Change medium for Lab 3 (after 3 days) (P)  Group 1-4  Group 5-8 | S\* | Wes |
| **Oct 3**  *(Fri)* | 09:00-12:00 | Bioinformatics (L) | Art 4 | PH |
| **Week 41**  **Oct 7**  *(Tue)* | 09:00-12:00  13:00-17:00 | Presentation of literature study (L)  Presentation of literature study (L) | Art 4  Art 4 | LZ  LZ |
| **Oct 10**  *(Fri)* | 09:00-12:00 | Lab 4 Gene editing - NGS sequencing results: discussion and info about sgRNA design (P)  *(Note: this date maybe changed due to the uncertainty in obtaining the sequence results from the company!)* | Kemisal | Wes |
| **Week 42**  **Oct 14**  *(Tue)* | 10:00-12:00 | Questions about the case study (optional)2 | Zoom\*\* | LZ |
| **Oct 17**  *(Fri)* | 09:00-12:00  13:00-16:00 | Finishing all labs (P)  (*gus staining if shoots are available*) | Mikroskop | Wes |
|  |  |  |  |  |
| **Week 43**  **Oct. 21**  *(Tue)* | 09:00-12:30 | Presentations/discussions of labs (L) | Art 4 | LZ, Wes |
| **Oct. 22**  *(Wed)* | 10:00-12:00 | Questions on Case Study (optional) | Zoom | LZ |
| **Week 44**  **Oct. 27**  *(Mon)* | 09:00-12:00  13:00-16:00 | Presentation of case studies (L) (reserve time)  Presentation of case studies (L) (reserve time) | Art 4  Art 4 | LZ  LZ |
| **Oct. 28**  *(Tue)* | 09:00-12:00  13:00-16:00 | Presentation of case studies (L) (reserve time)  Presentation of case studies (L) (reserve time) | Art 4  Art 4 | LZ  LZ |
| **Oct. 29**  *(Wed)* | 09:00-12:00 | Presentation of case studies (L) | Art 4 | LZ |
| **Oct. 30**  *(Thurs)* | 09:00-12:00  13:00-16:00 | Presentation of case studies (L)  Presentation of case studies (L) | Art 4  Art 4 | LZ  LZ |
| **Oct. 31**  *(Fri)* | 09:00-12:00 | Presentation of case studies (L) (reserve time)  Deadline for handing in final report on case study | Art 4 | LZ |

**\*Abbreviations and explanations:**

L=lecture

P=practice

**Art 4**: Articum 4 in Articum

Kemisal in Articum

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.

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