

| <b>Module Title: Maize and barley genetics</b>  |  |  |                         |                        |                 |                             |                          |
|---|--|--|-------------------------|------------------------|-----------------|-----------------------------|--------------------------|
| <b>Module ID/Code:</b> NPW-046 [780800460]  |  |  |                         |                        |                 |                             |                          |
| <b>1. Content and intended learning outcomes</b>  |  |  |                         |                        |                 |                             |                          |
| <b>Learning content:</b>  | This course aims on getting hands on experience in maize and barley genetics by focusing on molecular aspects of development in these species. Students will get insights into ongoing research topics of the working group by attending lectures and will also work on selected aspects of these projects in lab exercises. They will also learn to self-reliantly prepare oral presentations in english and how to prepare a scientific report and a how to keep a laboratory journal. |  |                         |                        |                 |                             |                          |
| <b>Learning outcomes</b>  |  |  |                         |                        |                 |                             |                          |
| After a successful completion of the course, the students...  |  |  |                         |                        |                 |                             |                          |
| <ul style="list-style-type: none"> <li>- have an advanced knowledge of methods in genetics and molecular biology.</li> <li>- comprehend the results of genetic experiments and can present them.</li> <li>- can plan and execute genetic experiments.</li> <li>- can interpret the results of genetic experiments.</li> </ul> |  |  |                         |                        |                 |                             |                          |
| <b>2. Prerequisites</b>   |  |  |                         |                        |                 |                             |                          |
| <b>obligatory</b>   | Module "Concepts in Genetics and Genomics"   |  |                         |                        |                 |                             |                          |
| <b>recommended</b>  | Grundlagen molekulargenetischer Praxis (B.Sc.)   |  |                         |                        |                 |                             |                          |
| <b>Maximum number of students</b>   | 12 students  |  |                         |                        |                 |                             |                          |
| <b>3. Study program allocation</b>  |  |  |                         |                        |                 |                             |                          |
| <b>Study program</b>  |  |  |                         |                        |                 | <b>Compulsory/ Elective</b> | <b>Semester</b>          |
| M.Sc. Crop Sciences   |  |  |                         |                        |                 | E Focus MCS                 | 3.                       |
| <b>4. Teaching and learning methodes</b>  |  |  |                         |                        |                 |                             |                          |
| Type of course  | Interval   | Topic  | Language of instruction | Group size             | SWS             | Workload [h]                |                          |
|   |  |  |                         |                        |                 | Contact time                | Self-study               |
| L   | during the semester  | Current topics in maize and barley genetics      | English                 | 12                     | 1,0             | 15,0                        | 15,0                     |
| P* (blocked)  | full-day block   | Practical exercises in ongoing research projects | English                 | 12                     | 5,0             | 75,0                        | 75,0                     |
| <b>5. Course cycle</b>  |  |  |                         | <b>6. Workload [h]</b> |                 | <b>7. Duration</b>          | <b>8. Credits (ECTS)</b> |
| WS  |  |  |                         | 180                    |                 | 1                           | 6,0                      |
| <b>9. Requirements for the rewarding of credits (ECTS)</b>  |  |  |                         |                        |                 |                             |                          |
| Types of Assessment   | Prerequisites for admission to the Assessment  |  |                         | Graded yes/no          | Language (exam) | Weighting factor            |                          |
| Report [780800469]  | Regular participation in practical exercises   |  |                         | graded                 | English         | 50%                         |                          |
| Presentation [780800468]  | Submission of written report   |  |                         | graded                 | English         | 50%                         |                          |
| <b>Academic Achievements</b>  |  |  |                         |                        |                 |                             |                          |
|   |  |  |                         |                        |                 |                             |                          |
| <b>10. Module coordination</b>  |  |  |                         |                        |                 |                             |                          |
| <b>Module coordinator</b>   |  |  |                         |                        |                 |                             |                          |
| Prof. Dr. Frank Hochholdinger   |  |  |                         |                        |                 |                             |                          |
| <b>Teaching person</b>  |  |  |                         |                        |                 |                             |                          |
| Dr. Peng Yu; Prof. Dr. Frank Hochholdinger  |  |  |                         |                        |                 |                             |                          |
| <b>Institute/ Department</b>  |  |  |                         |                        |                 |                             |                          |
| Agrar-, Forst- und Ernährungswissenschaften   |  |  |                         |                        |                 |                             |                          |
| <b>11. Further information</b>  |  |  |                         |                        |                 |                             |                          |
|   |  |  |                         |                        |                 |                             |                          |