

| <b>Module Title: Molecular Crop Science Project 2</b>  |   |  |                         |                        |                             |                    |            |                          |
|--|---|--|-------------------------|------------------------|-----------------------------|--------------------|------------|--------------------------|
| <b>Module ID/Code:</b> NPW-039 [780800390]   |   |  |                         |                        |                             |                    |            |                          |
| <b>1. Content and intended learning outcomes</b>   |   |  |                         |                        |                             |                    |            |                          |
| <b>Learning content:</b>   | For the profile (Schwerpunkt) Molecular Crop Science, two projects are obligatory. Students work in one of the associated labs on a small research project. The content of the individual research projects are as diverse as the research subjects of the participating groups, which include Plant Breeding, Molecular Biology of the Rhizosphere, Molecular Phytomedicine, Crop Functional Genomics, Crop Bioinformatics, Chemical Signalling, Plant Nutrition and Molecular Biotechnology. Independent of the chosen project the course will provide key information about concepts in molecular analysis of crops which includes basic knowledge of tools and experimental strategies used in molecular crop sciences. The research project will be regularly discussed with the supervisor and the outcome presented in oral form in a research seminar of the supervising lab and a minisymposium of all project students at the end of the semester. A written report needs to be completed in accordance with research documentation practices of the hosting lab. |  |                         |                        |                             |                    |            |                          |
| <b>Learning outcomes</b>   |   |  |                         |                        |                             |                    |            |                          |
| After a successful completion of the course, the students...   |   |  |                         |                        |                             |                    |            |                          |
| <ul style="list-style-type: none"> <li>- project planning and management.</li> <li>- lab work and organisation.</li> <li>- scientific writing.</li> <li>- critical reading.</li> <li>- scientific communication and oral presentation of results.</li> </ul> |   |  |                         |                        |                             |                    |            |                          |
| <b>2. Prerequisites</b>  |   |  |                         |                        |                             |                    |            |                          |
| <b>obligatory</b>  | Crop Physiology, Crop Breeding Research, Data Analysis and Visualization at least one lab class, e.g. Molecular Crop Physiology, Applied Bioinformatics   |  |                         |                        |                             |                    |            |                          |
| <b>recommended</b>   |   |  |                         |                        |                             |                    |            |                          |
| <b>Maximum number of students</b>  |   |  |                         |                        |                             |                    |            |                          |
| <b>3. Study program allocation</b>   |   |  |                         |                        |                             |                    |            |                          |
| <b>Study program</b>   |   |  |                         |                        | <b>Compulsory/ Elective</b> | <b>Semester</b>    |            |                          |
| M.Sc. Crop Sciences  |   |  |                         |                        | C 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 |                          |
| P* (blocked)   | full-day block  | to be choosen from offered projects    | English                 | 1                      | 2,0                         | 30,0               | 130,0      |                          |
| S (blocked)  | full-day block  | Presentation and discussion of results | English                 | 30                     | 1,0                         | 15,0               | 5,0        |                          |
| <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   |            |                          |
| none   |   |  |                         | not graded             | English                     |                    |            |                          |
| <b>Academic Achievements</b>   |   |  |                         |                        |                             |                    |            |                          |
| Completion of lab project, Report on lab project   |   |  |                         |                        |                             |                    |            |                          |

|  |
|--|
| <b>Module Title: Molecular Crop Science Project 2</b>  |
| <b>Module ID/Code:</b> NPW-039 [780800390]   |
| <b>10. Module coordination</b>   |
| <b>Module coordinator</b>  |
| Prof. Dr. Heiko Schoof   |
| <b>Teaching person</b>   |
| Prof. Dr. Andreas Meyer; Prof. Dr. Peter Dörmann; Prof. Dr. Claudia Knief; Prof. Dr. Florian Grundler; Prof. Dr. Frank Hochholdinger; Prof. Dr. Gabriel Schaaf; Prof. Dr. Heiko Schoof |
| <b>Institute/ Department</b>   |
| Agrar-, Forst- und Ernährungswissenschaften, Biologie  |
| <b>11. Further information</b>   |
|  |