# Module Descriptions

A **module** is a self-contained **learning unit** within a higher education program that includes thematically related courses and is assigned a **fixed number of credits**. It follows specific **learning objectives**, includes an **assessment component**, and contributes to achieving the qualifications of a degree program. In some countries, “modules” are also named “courses”.

Please provide a module description for each module. In addition to the compulsory and elective modules, this also includes credited internships and the final thesis.

Please summarize all module descriptions in one document (Module Handbook) and create a table of contents so that the modules can be found easily.

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| Module designation | *Cultivation Technology of Condiments* |
| Semester(s) in which the module is taught | *5* |
| Person responsible for the module | *Prof. Dr. Ir. Nasaruddin* |
| Language | *Bahasa Indonesia* |
| Relation to curriculum | *Compulsory ~~/ elective~~ / specialisation* |
| Teaching methods | *Face-to-face lectures and independent learning* |
| Workload (incl. contact hours, self-study hours) | 1. *Lectures: 2 × 50 × 16 = 1,600 minutes (26.67 hrs)*<br>2. *Structured assignments: (total 2 × 60 × 16) = 1,920 minutes (32 hrs)*<br>- *Individual assignments: 2 × 120 × 3 = 720 minutes (12 hrs)*<br>- *Group assignments: 2 × 120 × 3 = 720 minutes (12 hrs)*<br>- *Quiz: 2 × 15 × 8 = 240 minutes (4 hrs)*<br>- *Discussion: 2 × 30 × 4 = 240 minutes (4 hrs)*<br>3. *Independent study: (total 2 × 60 × 16) = 1,920 minutes (32 hrs)*<br>- *Accessing SIKOLA, participating in online discussion forums, reading materials, etc.*<br>4. *Practicum: (total: 1 × 170 × 16) = 2,720 minutes (45.33 hrs)*<br>- *Field work: 1 × 170 × 16 = 2,720 minutes (45.33 hrs)* |
| Credit points | *3 credits equal to 4.86 ECTS* |
| Required and recommended prerequisites for joining the module | - |

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| Module objectives/intended learning outcomes | *In terms of knowledge:*<br>- *Student able to explain the characteristics of plantation crops belonging to perennial spice and medicinal plant groups.*<br>- *Student able to understand the botanical and ecological characteristics of perennial spice and medicinal plants.*<br>- *Student able to plan the stages of land preparation, field clearing, and planting for perennial spice and medicinal plants.*<br>- *Student able to plan and understand the preparation of planting materials and nursery management for perennial spice and medicinal plants.*<br>- *Student able to understand cultivation and maintenance techniques for perennial spice and medicinal plants.*<br>- *Student able to understand harvesting and postharvest handling processes of perennial spice and medicinal plants.* |
| Content | 1. *Learning Contract*<br>2. *Selected Topics on Perennial Spice and Medicinal Plants (Pepper, Vanilla, and Nutmeg)*<br>3. *Botanical and Ecological Characteristics of Perennial Spice and Medicinal Plants*<br>4. *Planning, Land Preparation, Land Clearing, and Planting*<br>5. *Planting Materials and Nursery Management*<br>6. *Crop Maintenance*<br>7. *Harvesting and Postharvest Handling of Perennial Spice and Medicinal Plants* |
| Examination forms | *Quiz, individual assignment, group assignment, discussion* |
| Study and examination requirements | *To successfully pass the module, students must attend at least 80% of the classes, complete all assignments and exams, and obtain a final grade of at least 45%* (minimum passing grade: D). |

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| Reading list | 1. *Anandaraj, M., Rema, J., Sasikumar, B., and Bhai, R. (2005). Vanilla. Printers Castle, Kochi, India.*<br>2. *Anilkumar, A. (2004). Vanilla cultivation: A profitable agribased enterprise. Kerala Calling, 26–30.*<br>3. *Flach, M., and Tjeenk Willink, M. (1999). Myristica fragrans Houtt. In: Plant Resources of South-East Asia, No. 13: Spices (Guzman, D.C. de & Siemonsma, M.S., eds.). Backhuys Publishers, Leiden.*<br>4. *Janice, Y. U. (2012). Vanilla (Vanilla planifolia): Farm and Forestry Production and Marketing Profile. Specialty Crops for Pacific Island Agroforestry. http://agroforestry.net/scps*<br>5. *Nelson, S. C., and Eger, K. T. (2011, revised). Farm and Forestry Production and Marketing Profile for Black Pepper (Piper nigrum). In: Elevitch, C.R. (ed.), Specialty Crops for Pacific Island Agroforestry. Permanent Agriculture Resources (PAR), Holualoa, Hawai'i. http://agroforestry.net/scps*<br>6. *Orwa, C., Mutua, A., Kindt, R., Jamnadass, R., and Anthony, S. (2009). Myristica fragrans. Agroforestree Database: A Tree Reference and Selection Guide, version 4.0. http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp*<br>7. *Prijogo, U. H., Susilowati, S. H., Rachmat, M., Swastika, D. K. S., Kustiari, R., and Nuryanti, S. (2011). Outlook Pertanian 2010–2015. Badan Penelitian dan Pengembangan Pertanian, Kementerian Pertanian, Jakarta.*<br>8. *Sasikumar, B., Thankamani, C. K., Srinivasan, V., Devasahayam, S., Santhosh, J., Eapen, S., Kumar, A., and Zacharaiah, T. J. (2009). Black Pepper.* |