



KEMENTERIAN PENDIDIKAN, KEBUDAYAAN,
RISET, DAN TEKNOLOGI
UNIVERSITAS BRAWIJAYA
FAKULTAS PERTANIAN
DEPARTEMEN HAMA DAN PENYAKIT TUMBUHAN

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**MINUTES OF MEETING
MASTER OF PLANT PATHOLOGY STUDY PROGRAM**

| | |
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| ACTIVITY PROGRAM | A follow-up based on the findings and suggestions from Panel Expert of AQAS |
| DATE | Thursday, December 7 th 2023 |
| PLACE | Department room meeting |
| PERSONS INVOLVED | Head of Department : Luqman Qurata Aini, SP., M.Si., Ph.D Secretary of Department: Dr. Rina Rachmawati., SP., MP., M.Eng. Head of Study Program : Prof. Dr. Ir. Abdul Latief Abadi, MS. Note-taker :Irisa Trianti, SP., MP., MSc., Ph.D Members : Antok Wahyu Sektiono, SP., MP. M. AkhidSyib'li., SP., SP., Ph.D Dr. Silvi Ikawati, SP., MP., M.Sc. Tita Wijayanti, SP, M.Si. Ito Fernando, SP., MP Faiz Nashiruddin Muhammad, SP., MP. Yogo Setiawan SP., MP. |

Discussion:

The meeting aims to discuss and decide the solution for the findings from AQAS expert panels, from finding number 20-24, and resulted as follows:

| No | Narration of Findings |
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| 20 | The curriculum must include more state-of-the-art topics and methods, e.g. in molecular biology, molecular diagnosis, and chemical analytics |

We established MPP with unique characteristic of the curriculum, namely ecological-based phytopathology as seen in several courses at MPP, namely: Agroecology for Plant Disease Management, Integrated Plant Disease Management, and Microbial and Plant Interaction in ecological and molecular aspects as we have mentioned in the curriculum structure. However, we have also included several topics concerning state-of-the-art topics and methods in several course such as: Techniques in Phytopathology, Biotechnology in Plant Disease Control, Plant Disease Resistance, Plant-Microbes Interaction which can be found in the extended course plan. Several advanced topics and methods including early detection of plant diseases using molecular approach, qRT-PCR technology, and next generation sequencing (NGS) technology for metagenomic analysis, transgenic plant technology, biomarkers for the detection of plant pathogens, plant signal transduction pathway, quorum sensing in bacteria, CRISPR CAS-9 method for developing plant resistance, and analytical chemical analysis techniques using Mass Spectrometry Chromatography. We are committed to regularly updating the content of course to meet the new advances technology in Plant Pathology. They are available in our course description and can be accessed in this link: <https://s.ub.ac.id/coursedescmpp> and <https://fp.ub.ac.id/course-description-of-mpp/>

| No | Narration of Findings |
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| 21 | The references and literature recommendations indicated in the course descriptions must be updated. |

We are committed to regularly updating the references in the course plan, and we already conducted it in 2022 through a workshop on December 19-22, 2022. The workshop document and the latest extended version of the course plans are available. The course plan we have included in the previous AQAS SER was the year of 2021 version. They are available in our course description and can be accessed in this link: <https://s.ub.ac.id/coursedescmpp> and <https://fp.ub.ac.id/course-description-of-mpp/>

| No | Narration of Findings |
|----|--|
| 22 | Pathogenesis must be part of compulsory courses and not electives. |

1. The faculty member of MPP has discussed the position of pathogenesis courses, and agreed that the courses are still treated as elective courses, upon these considerations:
 - a. The study program observed that students who enter MPP commonly have taken plant disease courses in their undergraduate program (i.e., plant pathology, plant bacteriology, plant mycology, plant virology, and plant nematology), whose course topic contents include the basic of plant pathogenesis. This observation was recorded during Curriculum Synchronization Workshop covering Undergraduate, Master and Doctoral programs conducted by the Department of Plant Pest and Disease FAUB on February 22–23, 2020. They are available in our course plan, and can be accessed in this link: <https://s.ub.ac.id/coursedescmpp> and <https://fp.ub.ac.id/course-description-of-mpp/>

The documentation of the workshop were shown below:



- b. The study program intentionally offers several courses of pathogenesis, to be chosen by the students in regard of their thesis topics, which are: Plant Bacterial Pathogenesis, Nematode Pathogenesis, Fungal Pathogenesis, and Plant Virus Pathogenesis. The MPP students will choose one of the pathogenesis courses in accordance with their thesis research topic to be chosen. For example, students

who will do research on plant bacteriology will be advised to take the Bacterial Pathogenesis course.

- c. According to the National Board of Accreditation in Indonesia, the curriculum for the master's degrees study program are required to have curriculum flexibility, with elective courses are counted as much as 25% of the total number of courses. If these four pathogenesis courses which in total of 8 credits are included in the compulsory courses, it will reduce the flexibility of the MPP curriculum and will not meet the standards of the National Board of Accreditation.
- d. However, the faculty member of MPP SP were considering AQAS expert suggestion and agreed to shift the course "Physiology in Plant Disease," which covers the topic of general plant pathogenesis, to be a compulsory course. The detail rearrangement will be conducted in the workshop of curriculum being held this year.

| No | Narration of Findings |
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| 23 | Courses should include more practical work elements. |

2. The Study Program has aware of this since last few years and has finally made credit rearrangement through a curriculum review process that were conducted on March 18, 2023. The process involved both lecturers and students in a participatory method. All participants agreed to add more practical work in the courses. The minutes of meeting and documentation can be accessed at the following link: <https://s.uib.ac.id/momquesthousempp> and the results of the workshop were shown below:

- a. Some of the courses that have been added with practical work are: Applied Statistics, Pesticide Ecotoxicology, Fungal Pathogenesis, Viral Pathogenesis, Bacterial Pathogenesis, and Nematode Pathogenesis. The detailed revision of the credits were shown in table below:

| Odd Semester | Course | Course type | Revised | Old credit | New credit |
|----------------------|---|-------------|------------|------------|------------|
| PTH81105 | Applied Statistics | Compulsory | | 2 (2-0) | 1-1 |
| PTH81106 | Research Methodology and Science Ethics | Compulsory | | 3 (2-1) | 2-1 |
| PTH81106 | Biotechnology in Plant Disease Control | Compulsory | | 3 (2-1) | 2-1 |
| PTH81211 | Viral Pathogenesis | Elective | | 2 (2-0) | 2-1 |
| PTH81212 | Quantitative Epidemiology | Elective | | 2 (2-0) | 2-0 |
| PTH81214 | Root Microbiology | Elective | | 3 (2-1) | 2-1 |
| PTH81215 | Physiology in Plant Disease | Elective | Compulsory | 2 (2-0) | 2-0 |
| PTH81216 | Fungal Pathogenesis | Elective | | 2 (2-0) | 2-1 |
| Even Semester | | | | | |
| PTH81103 | Research Methodology and Science Ethics | Compulsory | | 2 (2-0) | 2-0 |
| PTH82121 | Agroecology for Disease Management | Compulsory | | 2 (2-0) | 2-0 |
| PTH82122 | Pesticides Eco-toxicology | Compulsory | | 2 (2-0) | 1-1 |
| PTH82126 | Plant-Microbes Interaction | Compulsory | | 3 (2-1) | 2-1 |
| PTH82233 | Integrated Plant Disease Management | Elective | | 2 (2-0) | 2-0 |
| PTH82234 | Plant Disease Resistance | Elective | | 2 (2-0) | 2-0 |
| PTH82235 | Post Harvest and Seed Pathology | Elective | | 2 (2-0) | 2-0 |
| PTH82231 | Bacterial Pathogenesis | Elective | | 2 (2-0) | 2-1 |
| PTH82232 | Nematode Pathogenesis | Elective | | 2 (2-0) | 2-1 |
| PTH81213 | Plant Quarantine and Regulation | Elective | | 2 (2-0) | 2-0 |
| | | | | | |
| PTH62292 | Special topics | Compulsory | | 1 | |
| UBU8006 | Thesis | Compulsory | | 12 | |
| | | | | 53 | |

- b. The study program invited stakeholders to discuss curriculum restructuring and gathered suggestions for updating the semester learning plans. The minutes of meeting and documentation can be accessed at the following link: <https://s.ub.ac.id/minuteofmeetingmpp>
- c. The new arrangement will be applied for the 2023-2024 study year.

| No | Narration of Findings |
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| 24 | The idealised typical course plan should be corrected and improved. |

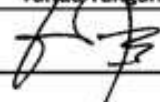
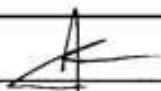

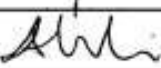
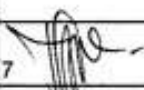


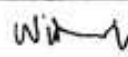








We do have the extended version of course descriptions that include the contents and topics of each course, the level of detail regarding the course learning outcomes, the references and literature recommendations, etc. The documents are available and accessible. The previous version of the course plan available in the AQAS SER document was adjusted to meet the AQAS template / standard and became compacted. We are committed to regularly improving the typical course plan based on new advances in plant pathology through workshops on the curriculum this year, as we have already conducted them in 2020 and 2022. They are available in our course plan, and can be accessed in this link: <https://s.ub.ac.id/coursedescmpp> and <https://fp.ub.ac.id/course-description-of-mpp/>

Appendix 1. The Documentation and presence list of the Study Program Meeting:

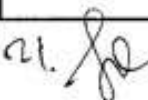
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Daftar Hadir

Hari/Tanggal : Senin, 7 Agustus 2023
 Acara : Penyusunan Dokumen Feedback AQAS

| No | Nama | Tanda Tangan | Tanda Tangan |
|----|--------------------------------------|---|--|
| 1 | Prof. Dr. Ir. Abdul Latief Abadi, MS | | 1  |
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| 3 | Dr. Rina Rachmawati, SP, MP, M.Eng | | 3  |
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| 5 | Dr. Iriisa Trianti, SP, MP, M.Sc | | 5 |
| 6 | Dr. Ir. Mintaro Martosudiro, M.S. | 6 | |
| 7 | Antok Wahyu Sektiono, SP, MP | | 7  |
| 8 | Fery Abdul Choliq, SP, MP | 8 | |
| 9 | M. Akhid Syib'li, Sp, MP, Ph.D. | | 9  |
| 10 | Dr. Silvi Ikawati, SP, MP, M.Sc | 10  | |
| 11 | Tita Wijayanti, SP, M.Si | | 11  |
| 12 | Yogo Setiawan, SP, MP | 12  | |
| 13 | Ito Fernando, SP, MP | | 13  |
| 14 | Mia Prastika Dewi, SP | 14 | |
| 15 | Faiz Nashiruddin Muhammad, SP | | 15  |
| 16 | Athira P. | 16  | |
| 17 | Bintar Probo | | 17  |
| 18 | Bayu A. P | 18  | |
| 19 | Achmad Fitriadi T | | 19  |
| 20 | Anton Melus Rutor | 20  | |

21 Moch. Syam Sul Hani

21. 



December 7th, 2023

Head of Department

Head of MPP SP



Luqman Qurata Aini, S.P., M.Si., Ph.D.

Prof. Dr. Ir. Abdul Latief Abadi, M.S.