**Plant Pest Forcasting**

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| **Obligatory module or Selective module** | **Plant Pest Forecasting** | **PNH 4129** |
| **Semester** | Odd semester | |
| **Module level** | Undergraduate | |
| **Module Coordinator** | Prof. Ir. Y. Andi Trisyono, M.Sc., Ph.D. | |
| **Lecturer(s)** | Prof. Ir. Y. Andi Trisyono, M.Sc., Ph.D.<br>Dr. Suputa, S.P., M.P. | |
| **Type of Module** | 1 hour and 40 minutes lecture<br>Practical | |
| **Status** | E (elective courses) | |
| **Exam** | Written | |
| **Number of participants** | | |
| **Credit Points:** | 2/1 (5.02 ECTS) | |
| **Description:** | This course consists of six major topics: 1) external and internal factors governing the life table and population dynamics; 2) key factor analysis; 3) data collection methods; 4) learning and reviewing the existing model; 5) development of models for forecasting; and 6) decision making process and management. | |
| **Academic goal (competency):** | Students are able to identy main internal and external factors that contribute in determining the population of insect pests, learn and review how the existing models were developed, and have ideas on how the forecasting model of a certain insect pest should be based on. | |

**Course outcomes:**

CO1= Able to identy main internal and external factors that contribute in determining the population of insect pests

CO2= Able to learn and review how the existing models were developed

CO3=Able to imagine about how the forecasting model of a certain insect pest

**Contents:**

- Introduction: course content, life table and population dynamics
- Examining internal and external factors governing the population of insect pests
- Examining internal and external factors governing the population of insect pests
- Key factor analysis
- Sampling techniques
- Data collections: GIS, drones etc
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- Learning and reviewing the existing models
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- Student project: Identifying the key factors for developing model for forcasting of a certain insect pest
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- Decision making process and management

**Which previous course required?** Plant Protection,

**Literature:**

**Materials provided:** Slide presentation/power point

**Requirements for exam:**75% attendance

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| **Teaching method(s)** | Lectures, Discussion, Presentations/Assignments |

Workload (hrs).

1. Theoretical of course:13 times
2. Lab work:7 times
3. Home studies: related to the chapter discussed in the class