Principles of plant biotechnology (AGH330)

SKS: 3(2-3)
Offered in: odd semester
Prerequisite: -
Course Coordinator: N. M. Armini
Language: V Indonesian V English □ both

Description of the course:
This course provides students with knowledge of the definition and scope of plant biotechnology and its application the field of agriculture. Topics of discussion includes definition of plant biotechnology, plant tissue culture, process of cell biology and tissue, growth regulator substances, soma clonal variation, protoplast culture, secondary metabolite production, synthetic seed production, gene transformation, preservation of germ plasma, application of biotechnology in food crops, horticulture and plantation. In practicum, students will gain experience of simple technique application in plant technology.

Learning outcomes:
After completing the course, students will be able to explain and give examples of techniques in plant biotechnology. Additionally, they will be able to choose a specific technique in biotechnology to be applied for crops, plantation and horticultural plants.

Indicative assessment:
1. Midterm exam : 35%
2. Final exam : 35%
3. Practice : 30%

Contact hours:
Lecture: 2 x 50 minutes x 14 weeks
Practicum in lab.: 3 hours x 14 weeks

Reading: