



COURSE SPECIFICATION 5TH SEMESTER:

ELECTIVE COURSE

Course Name : Agricultural Biotechnology
Code : KL 675
Credit : (1-0)

Course Description:

The Agricultural Biotechnology Course is one of the elective courses aimed at supporting the achievement of the main competence of graduates that graduates can design, implement and develop innovative businesses in the field of plant cultivation technology in sustainable agriculture. Besides that, as an encouragement to be able to communicate effectively in Indonesian and English, and to show a professional attitude. The role of the Agricultural Biotechnology course in supporting the achievement of main competencies is carried out through the outcomes of the course, namely being able to understand the basic concepts and applications of biotechnology in agriculture and implementing biotechnology techniques for various purposes of improving the quality of agricultural cultivation and agro-ecosystem management.

References:

Prescott et al. 2000. Microbiology
Brock. 1988. Biology of Microorganism
Ingold, C.T. & H.J. Hudson. 1993. The Biology of Fungi. Chapman & Hall.
Ratna Siri dkk. 1982. Dasar Mikrobiologi
Tortora et al. 2007. Microbiology An Introduction. Pearson Int'l Edition.
Mantell, Mathews dan McHee. 1985. Principles of crop Biotechnology. London
Sardjoko. 1991. Bioteknologi. Gramedia. Jakarta
Yuwono, T. 2006. Bioteknologi Pertanian. Gadjah Mada University Press.
Yogyakarta

Topics:

1. Conventional and modern agricultural biotechnology
2. Biotechnology for biofertilizer development
3. Biotechnology for land remediation
4. Biotechnology for plant breeding
5. Biotechnology for increasing plant resistance to biotic environmental stresses
6. Biotechnology for increasing plant resistance to abiotic environmental stresses
7. Introduction to the concept of bioinformatics, biosafety and bioethics
8. Problematic use of biotechnology products in the field