Module Handbook

Module Name:	Genetic Engineering Product
Module Level:	Bachelor
Abbreviation, if applicable:	BIT402
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	1 / Fourth year
Module coordinator(s):	Dr. rer.nat. Mulja Hadi Santosa
Lecturer(s):	Dr. rer.nat. Mulja Hadi Santosa
	Junaidi Khotib, S.Si, M.Kes, Ph.D
	Prof. Dr. Sukardiman, MS
Language:	Bahasa Indonesia
Classification within the curriculum:	~~Compulsory Course~~/Elective Studies
Teaching format/class hours per week during the semester:	100 minutes lectures, 13 lecture classes/semester
Workload:	Total 22 hours a semester
Credit Points:	2
Requirements:	Student must have taken Pharmaceutical Biotechnology (BIT302) course.
Learning goal/competencies:	Knowledge – To understand the concept of genetical manipulation.
	Skills – Learning to be independent, update about new informations, knowing how to make papers, learning-share and active in discussion.
	Competence – To understand and able to apply the concept of genetic manipulation in making biopharmaceutical products.
Content:	Biopharmaceutical products which are made by genetic manipulation, including its methods/making process, therapeutic purposes, and clinical application (specifically: cytokines, interferon, growth factor, therapeutic hormones, therapeutics enzymes, antibody drugs and vaccines)
Study/exam achievements:	Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning. Final score is calculated as follow : 20% Exam I + 20% Exam II + 30% Reading Assignment + 30% Paper Presentation Final index is defined as follow : A : ≥ 75 AB : 70 – 74,9 B : 65 – 69,9 BC : 60 – 64,9 C : 55 – 59,9

	D : 40 – 54,9 E : <40
Forms of Media:	Slides, LCD projector, biotechnology videos, eBooks, whiteboard.
Literature:	1. Gary Walsh, *Pharmaceutical Biotechnology*, *Concepts and Applications*, John Wiley-England, 2007
	2. Shargel L, Wu-Pong S, Yu ABC, *Applied Biopharmaceutics and Pharmacokinetics*, 5th edition, McGraw Hill Medical, 2004
	3. Walls G, *Biopharmaceuticals : Biochemistry and Biotechnology*, 2nd edition, A John Willey and Sons, Ireland, 2003
	4. Yuti Chernajovsky & Ahuva Nissim (Eds), *Therapeutic Antibodies*, Springer-Verlag, Berlin Heidelberg, 2008
Notes:	