Module Handbook

Module Name:	**Toxicology**
Module Level:	Bachelor
Abbreviation, if applicable:	BIP200
Sub-heading, if applicable:	-
Courses included in the module, if applicable:	-
Semester/term:	3rd/ Second Year
Module coordinator(s):	Dr. Sri Sumarsih, M.Si.
Lecturer(s):	Drs. Sofijan Hadi, M.Kes.
Language:	Bahasa Indonesia
Classification within the curriculum	Compulsory Course/ ~~Elective Studies~~
Teaching format / class hours per week during semester:	2 hours lectures (50 min / hour)
Workload:	2hours individual study, 2 hours lectures, 2 hours structure activity, 13 weeks per semester, and total 78 hours a semester~ 2.6 ECTS *
Credit Points:	2
Requirements:	General Chemistry II and General Biology II
Learning goals/competencies:	**General Competence(knowledge) :** After attending the course General Toxicology, expected student is able to distinguish the toxicity, metabolism and organ target of various types of toxic chemicals **Specific Competences :** 1. Describe the brief history and scope of toxicology; 2. Connecting the dose-response, LD and LD50; The response of acute and chronic responses 3. Connecting type of toxicant and target organ toxicant 4. Describe the absorption, distribution and excretion toxicant; 5. Describe the metabolism of toxic substances (xenobiotics) and the factors that influence; 6. Connect various types of toxic chemicals and mechanisms of toxicity (carcinogen and teratogen) 7. Distinguish between mycotoxins, toxins microorganisms, plants and animals 8. Connect various types of toxic chemicals with linngkungan and industry
Content:	A brief history and scope of toxicology; A dose-response, LD and LD50; The response of acute and chronic responses; Target organ toxicant; Absorption, distribution and excretion toxicant; Metabolism of toxic substances (xenobiotics) and the factors that influence; Chemical carcinogen and teratogen; Metal and heavy metal toxicity; toxicity of pesticides and herbicides; Food toxicology and role in the detoxification of the digestive tract; Mycotoxins, toxins microorganisms, plants and animals; Toxicology industry.
Atribut Softskill	Active and communication skill
Study/exam achievements:	Students are considered to be competent and pass if at least get 40% of maximum mark of the exams (UTS dan UAS), structured

	activities(paperand group discussion). Final score (NA) is calculated as follow: 20%assignment+ 40% UTS + 40% UAS Final index is defined as follow: A : 75 - 100 AB : 70 - 74.99 B : 65 - 69.99 BC : 60 - 64.99 C : 55 - 59.99 D : 40 - 54.99 E : 0 – 39.99
Forms of Media:	Slides and LCD projectors, whiteboard
Learning methods	lecture, assignment, and group discussion
Literature:	1. *Curtis D.Klaasen (2001) Casarett and Doull's Toxicology: The Basic Science of Poisons, MacMillan Publishing Co. New York.* 2. Other literature and related articles.
Notes:	*Total ECTS = {(total hours workload x 50 min) / 60 min } / 25 hours **Each ECTS is equals with 25 hours**