Module Handbook

Module Name:	Pharmaceutical Analysis II
Module Level:	Bachelor
Abbreviation, if applicable:	Lecture KIA307
	Practical Work KIA308
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	1 / Fourth year
Module coordinator(s):	Prof. Dr. Sudjarwo, MS
Lecturer(s):	Prof. Dr.M Yuwono., MS
	Prof. Dr.M Zaenuddin
	Prof. Dr.Sugijanto, MS
	Prof. Dr.Djoko Agus Purwanto., Msi
	Dr.Isnaeni., MS
	Dr. Riesta P., SSi, MSi
	Febri Annuryanti, S. Farm., M.Sc
	Prof. Dr. Noor Erma NS., MS
	Prof. Dr. Amiruddin Prawita
	M. Faris Adrianto, S. Farm ., M.Farm., Apt.
	Dr. Asri Darmawati, MS
	Drs. Achmad Toto Poernomo, M.Si
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course/~~Elective Studies~~
Teaching format/class hours per week during the semester:	Lecture 150 minutes lectures, 13 lecture classes/semester
	Practical Work 200 minutes practical work classes, 13 practical work classes /semester
Workload:	Lecture Total 32 hours a semester
	Practical Work Total 42 hours a semester
Credit Points:	Lecture 3
	Practical Work 2
Requirements:	
Learning goal/competencies:	Knowledge – To understand the concept of pharmaceutical analysis and pharmaceutical analysis practice
	Skills – Discipline, honesty, and teamwork
	Competence – To understand and able to apply the concept of qualitative and quantitative analysis of the ingredients, active ingredients, additives, contaminants in pharmaceutical preparations, foods, cosmetics and biological samples.

Content:	Lecture This course will be given by lecture as discussion include: standardization, systematic analysis, sampling, testing medicinal raw materials, sample preparation, analysis of pharmaceutical preparations, the analysis of biological samples, analysis of food additives, analysis of cosmetic ingredients, analytical contamination, chemical, and analysis of microbiological contamination
	Practical Work The scope of the analysis of raw materials drug test, sample preparation, analysis of pharmaceutical preparations, biological sample analysis, analysis of food additives, cosmetic material analysis, analysis of chemical contaminants and microbiological contamination analysis
Study/exam achievements:	Lecture Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning. Final score (NA) is calculated as follow : 50% Exam I + 50% Exam II Final index is defined as follow : A : 100 > NA > 75 AB : 75 > NA > 70 B : 70 > NA > 65 BC : 65 > NA > 60 C : 60 > NA > 55 D : 55 > NA > 50 E : 50 < NA
	Practical Work Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning. Final score (NA) is calculated as follow : 50% Exam I + 50% Exam II Final index is defined as follow : A : 100 > NA > 75 AB : 75 > NA > 70 B : 70 > NA > 65 BC : 65 > NA > 60 C : 60 > NA > 55 D : 55 > NA > 50 E : 50 < NA
Forms of Media:	LCD projector, Internet access
Literature:	1. Chamberlain, J., 2015. *Analysis of Drugs in Biological Fluids 3rd Edition*. CRC Press.
	2. Convention, T.U.S.P., 2015. *USP 39*. 2nd ed. Twinbrooks Parkway.
	3. Denyer, S.P., Baird, R.M. & Hodges, N.A., 2010. *Handbook of Microbiological Quaity Control*. Taylor & Francis Routledge.

	4. Horwitz, W., 2000. *Official Methods of Analysis of AOAC International*. 17th ed. AOAC International.
	5. RI, D., 1995. *Farmakope Indonesia IV*. 1st ed. DepKes RI.
	6. RI, D., 2016. *Farmakope Indonesia V*. 1st ed. DepKes RI.
	7. Smith, R.J. & Webb, M.L., 2007. *Analysis of Drug Impurities*. Blackwell Publishing.
	8. Yuwono, M. & Indrayanto, G., 2005. *Valiadtion of Chromatographic Methods of Analysis*. 32nd ed. Profiles of Drug Subtances, Exipients, and Related Methodology.
Notes:	