

Module Handbook

Module Name:	Pharmacognosy
Module Level:	Bachelor
Abbreviation, if applicable:	Lecture FAB302
	Practical Work FAB305
Sub-heading, if applicable:	
Courses included in the module, if applicable:	
Semester/term:	4 / Second year
Module coordinator(s):	Prof. Dr. Sukardiman, MS
Lecturer(s):	Prof. Dr. Sukardiman, MS Prof. Dr. Bambang Prayogo EW. MS Prof. Dr. Hj. Mangestuti Agil, MS Dr. Aty Widyawaruyanti, M.Si Dr. Wiwied Ekasari, M.Si Suciati, S.Si, M.Phil., PhD. Lusiana Arifianti, S.Farm., M. Farm Drs. Herra Studiawan, MS Dra. Rakhmawati, MS Dr. Idha Kusumawati, MS., Apt Rr. RetnoWidyawati, SSi., Apt., M.Pharm., PhD Neny Purwitasari, S.Farm.,MSc Rice Disi Oktarina, S.Farm, MFarm.
Language:	Bahasa Indonesia
Classification within the curriculum:	Compulsory Course
Teaching format/class hours per week during the semester:	Lecture 100 minutes lectures, 13 lecture classes/semester
	Practical Work 100 minutes practical work classes, 13 practical work classes /semester
Workload:	Lecture Total 22 hours a semester
	Practical Work Total 22 hours a semester
Credit Points:	Lecture 2
	Practical Work 1
Requirements:	
Learning goal/competencies:	Knowledge – To understand the concept of pharmacognosy and basic concept and principles in ethnopharmacy, safety and efficacy of herbal medicine, classification based of active ingredients, nutraceutical and marine organism.

	<p>– To understand the concept of macroscopic (organoleptic) and microscopic analyses and determine the chemical content of crude drugs traditional medicine preparations.</p> <p>Skills</p> <ul style="list-style-type: none"> – To demonstrate an ability to creativity and cooperative. – To demonstrate an ability to active learning (discuss new information) for upgrading knowledge. – To demonstrate an ability to critical thinking and comprehensive and scientifically. <p>Competence</p> <ul style="list-style-type: none"> – To have an ability to apply the concept of identification of herbal drugs material based on macroscopic and microscopic identification
Content:	<p>Lecture</p> <p>Introduction to pharmacognosy, classification of herbal drug materials based on active compounds: volatile oils, alkaloids, carbohydrate, glycoside, lipid, protein. Herbal material for antibiotic, nutraceutical and toxic herbal material. Marine organisms as source for drug material.</p> <hr/> <p>Practical Work</p> <p>Macroscopic and microscopic examination of herbal drug material such as: starch, folium, cortex, radix, rhizome flos, and fructus according to reference book of Materia Medika Indonesia and others. Identification of herbal drug material in traditional medicine product by using histochemical and thin layer chromatography methods</p>
Study/exam achievements:	<p>Lecture</p> <p>Student are considered to be competent and pass if at least get 50% of maximum mark of the exams based learning.</p> <p>Final score is calculated as follow :</p> <p>50% Exam I + 50% Exam II</p> <p>Final mark is defined as follow :</p> <p>A : ≥ 75 AB : 70 – 74,9 B : 65 – 69,9 BC : 60 – 64,9 C : 55 – 59,9 D : 40 – 54,9 E : <40</p>

	<p>Practical Work</p> <p>Student are considered to be competent and pass if at least achieve 50% of maximum mark of the exams based learning.</p> <p>Final score is calculated as follow :</p> <p>50% Exam I + 50% Exam II</p> <p>Final index is defined as follow :</p> <p>A : ≥ 75</p> <p>AB : 70 – 74,9</p> <p>B : 65 – 69,9</p> <p>BC : 60 – 64,9</p> <p>C : 55 – 59,9</p> <p>D : 40 – 54,9</p> <p>E : <40</p>
Forms of Media:	LCD projector, Microscope, laboratory glasswares
Literature:	<ol style="list-style-type: none"> 1. Anonim, <i>Materia Medika Indonesia</i>, Dep Kes RI, Volume I-VI. 2. Anonim, 2007. <i>Farmakope Herbal Indonesia</i>, 1st Ed, Jakarta: Departemen Kesehatan Republik Indonesia. 3. Anonim, 2011. <i>Farmakope Herbal Indonesia</i>, Suplement II, Jakarta: Departemen Kesehatan Republik Indonesia. 4. Trease and Evans, 2000. <i>Pharmacognosy</i>, 15th Ed. W.C Evans (Editor), London: Saunders (Elsevier). 5. Sukardiman, Mangestuti, Bambang Prajogo EW., Abdul Rahman; 2014 : Farmakognosi Jilid 1; Airlangga University Press 6. Tyler, V.E, Brady, L.R dan Robbers, J.E, 1988, <i>Pharmacognosy</i>, 9th ed, Lea & Febiger, Philadelphia, US, p 57-76 7. Samuelsson, G., 1999, <i>Drugs of Natural Origin, A Textbook of Pharmacognosy</i>, 4th revised edition, Apotekarsocieteten, Swedish Pharmaceutical Press, Stockholm, Sweden 8. DS Bhakuni , DS Rawat, 2005, <i>Bioactive Marine Natural Products</i>, Springer, New Delhi, India
Notes:	Students wish to enroll in this course should have taken botany pharmacy I and botany pharmacy II