

Module Handbook

Module Name :	Basic Biology
Module Level :	Bachelor
Abbreviation, if applicable :	BID101
Sub-heading, if applicable :	
Courses included in the module, if applicable :	
Semester / term :	1 / First year
Module coordinator(s) :	Junaidi Khotib, S.Si, M.Kes, Ph.D
Lecturer(s) :	Junaidi Khotib, S.Si, M.Kes, Ph.D
	Dr.rer nat. Mulja Hadi Santosa
	Dr. Djoko Agus Purwanto, MSi
	Dr. Sudjarwo, 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
Cedit Points :	2
Requirements :	
Learning goals/competencies :	<p>Knowledge</p> <ul style="list-style-type: none"> - To understand the concept of human cellular and basic concepts and principles in basic biology. <p>Skills</p> <ul style="list-style-type: none"> - Honesty, confidence, dicipline, respect to people, and teamwork. <p>Competence</p> <ul style="list-style-type: none"> - To understand and able to explain the concept of the structure of microscopic cellular level of on cells, molecular and genomics. - To understand and able to explain the concept of the chemical composition of cells and functions biomembran well and cell organelles. - To understand The process of cell biochemical and delivery of inter-cellular and intra-cell activation signal and implementation by endogenous and exogenous. - To understand and able to explain the concept of genetics (DNA-RNA, gene structure, DNA replication) and gene expression (transcription, translation), and its variations. - To understand and able to apply the concept of cells CYCLE and diseases associated with cell cycle, and the influence of endogenous and exogenous compounds. - To understand and able to explain the concept of changes in cellular and molecular result of exposure to endogenous and exogenous compounds in long term.

Content :	Cell structure and its properties; Biomembran structure, function and its transport exogenous compounds through it; structure and function of the cell organelles inside and metabolic processes; synthesis energy inside cell; the role of cell molecules communication and its delivery; structure and DNA properties, genes and chromosomes; gene expression and regulation; cell cycles, meiotic, and mitosis cells; mutations and the kinds of mutations; biosynthesis of protein; translating apoptosis and tumor occurrence
Study/exam achievements :	<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 (NA) is calculated as follow : 50% Exam I + 50% Exam II</p> <p>Final index is defined as follow :</p> <p>A : $100 > NA \geq 75$ AB : $75 > NA \geq 70$ B : $70 > NA \geq 65$ BC : $65 > NA \geq 60$ C : $60 > NA \geq 55$ D : $55 > NA \geq 50$ E : $50 < NA$</p>
Forms of Media :	Slides and LCD Projector, whiteboards.
Literature :	<ol style="list-style-type: none"> 1. 1. Albert B, Johnson A, Lewis J, Raff M, 2007, Molecular Biology of The Cell, 5th edition, Garland Science 2. Lodish H, Berk A, Kaiser CA, Krieger M, 2012, Molecular Cell Biology, 7th edition, Massachusetts Institute of Technology 3. Franklin TJ and Snow GA, 2005, Biochemistry and Molecular Biology of Antimicrobial Drug Action, 6th edition, USA: Springer 4. Anonim, 2005, Inside The Cell, NIH 5. Bolsover SR, Shephard EA, White HA, Hyams JS, 2011, Cell Biology, 3rd edition, USA, Willey Lis 6. Watson JD, Baker TA, Bell SP, Gann A, Levine M, Losick R, 2012, Molecular Biology of the Gene, (7th Edition)
Notes	The course is more comprehensive based as compared to basic biology.