

UNIVERSITAS NEGERI YOGYAKARTA

FACULTY OF MATHEMATICS AND NATURAL SCIENCES DEPARTMENT OF SCIENCE EDUCATION

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Bachelor of Education in Science

MODULE HANDBOOK

Module name:	Advance Biochemistry
Module level, if applicable:	Undergraduate
Code:	IPA 6244
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	5
Module coordinator:	Dr. Das Salirawati, M.Si
Lecturer:	Dr. Das Salirawati, M.Si
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective course
Teaching format / class hours per week during the semester:	100 minutes lectures and 120 minutes structured activities per week.
Workload:	Total workload is 90.67 hours per semester which consists of 100 minutes lectures, 120 minutes structured activities, and 120 minutes individual study per week for 16 weeks.
Credit points:	2
Prerequisites course(s):	General Biology, General Chemistry
Targeted learning outcomes:	After taking this course the students have ability to: CO1. Show independence and responsible in carrying out individual tasks and group assignments. CO2. Able to use knowledge systematically in solving problems related in Advance biochemistry CO3. Can explain the concepts of the the structure of living substances, energy transformation in living bodies, bioenergetics, energy in living systems, chain of reactions, oxidative phosphorylation mechanisms, high-

	energy phosphate compounds, adenylate systems, carbohydrates, proteins, lipids and the diseases they cause., antibodies in the body, collagen and its problems, gout and its problems, and recognize DNA testing This course discusses: the structure of living substances,							
Content:	energy transformation in living bodies, bioenergetics, energy in living systems, chain of reactions, oxidative phosphorylation mechanisms, high-energy phosphate compounds, adenylate systems, carbohydrates, proteins, lipids and the diseases they cause., antibodies in the body, collagen and its problems, gout and its problems, and recognize DNA testing.							
The final mark will be weight as follow:								
	No	СО	Objek Penilaian	Teknik Penilaian	Weight			
	1	CO1,	a. Quiz	Tertulis	15%	4		
Study / over achievements:		CO2,	b. Penilaian Sikap	Observasi	5%			
Study / exam achievements:		CO2,	c. Penilaian	Unjuk	370			
		003	Psikomotorik	kerja	10%			
			d. Ujian Tengah	Tertulis	35%			
			Semester	Tortailo	0070			
			e. Ujian Akhir	Tertulis	35%			
			Semester					
	Total 100%							
Forms of media:	Board	d, LCD P	rojector, Laptop/Compu	ıter				
	1. Da	as Salira Yogy	awati. (2001). Diktat akarta ; FMIPA – UNY.	Kuliah : Bio	okimia Fis	sik.		
	2. Boyer, P.D., et. al. (1977). Oxidative Phosphorylation and							
	Photophosphorylation. Ann. Rev. of Biochemistry. 46,							
	955 – 1026.							
	3. Edsal and Wyman. (1977). Biophysical Chemistry. London:							
Literature:	The Macmillan Co.							
Entoraturo.	4. West, E. S., et. al. (1970). Textbook of Biochemistry.							
	London : The Macmillan Co., Colier-Macmillan Limited.							
	5. Muhamad Wirahadikusumah. (1985). Biokimia :							
	Metabolisme Energi, Karbohidrat, dan Lipid.							
	Bandung: ITB and other sources that are relevant							
			in the form of textbook					
	resources that can be justified							

PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12
CO1				✓								
CO2				✓								
CO3				✓								