UNIVERSITAS NEGERI YOGYAKARTA
FACULTY OF MATHEMATICS AND NATURAL SCIENCES
DEPARTMENT OF PHYSICS EDUCATION
PHYSICS STUDY PROGRAM
Colombo St. Number 1 Yogyakarta 55281
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Module name:	Biomedical Physics
Module level, if applicable:	Bachelor Program
Code:	FSK6363
Sub-heading, if applicable:	-
Classes, if applicable:	-
Semester:	6th
Module coordinator:	Dr. Kuncoro Asih Nugroho, M.Pd., M.Sc.
Lecturer(s):	Dr. Restu Widiatmono, Dr. Eng. Rida Siti N.M.
Language:	Bahasa Indonesia
Classification within the curriculum:	Elective course
Teaching format / class hours per week during the semester:	150 minites lecture dan 180 minutes structured activities per week.
Workload:	Total workload is 136 hours per semester which consists of 150 minutes lectures, 180 minutes structured activities, and 180 minutes individual study per week for 16 weeks.
Credit points:	3 SKS (4.86 ECTS)
Prerequisites course(s):	-
Course Outcomes	CO1. Understand the application of physics to human organs CO2. Able to apply physics in human health CO3. Understand of artificial organ CO4. Know the working principle of medical instrumentation
Content:	Assessment to students includes affective, cognitive components. Attitude assessment is done by observing the

<table>
<tr><td></td><td>learning process. Attitude assessments will be observed that are outside the general range, namely very good or bad attitudes. understanding of physical biomedical concepts.
The final mark will be weight as follow:</td></tr>
<tr><td>Study / exam achievements:</td><td>
<table>
<tr><th>No</th><th>CO</th><th>Assessment Object</th><th>Assessment Technique</th><th>Weight</th></tr>
<tr><td>1</td><td>C01
CO2,
CO3
and
CO4</td><td>a. class attendance
b. Individual Assignment (class aktifiti)
c. Group Assignment
d. Quiz
e. Mid
f. Final Exam</td><td>Presentation / written test</td><td>5%
15%

20%
20%

20%
20%</td></tr>
<tr><td colspan="3"></td><td>Total</td><td>100%</td></tr>
</table>
</td></tr>
<tr><td>Forms of media:</td><td>Board, LCD Projector, Laptop/Computer</td></tr>
<tr><td>Literature:</td><td>

Splinter, 2010, R, Physic in Medecine and Biology, Taylor and Francis Group, LLC: Boca Raton.
Temenoff, J.S, Mikos, A.G, 2008, Biomaterials The Intersection of biology and Material Science.
Webter, J.G, 2004, Bioistrumentation, Jhon Willey, Inc: New York.
Goldfarb, D., 2011 , Biophysics DeMystified. McGrarw-Hill Companis, Inc: New York.
Nugroho, K. A., Abraha, K., Ngadikun, 2017,The Mechanism of Erythrocytes Aggregation in EDTA-Blood of Ovarian Cancer Patients Viewed by Coulomb’s Law, IJASEIT, 7(6), 2175-2182.
Ngadikun, Widodo, U., Tasmini, Prajdjatmo, H., Sadewa, A.H., Nugroho, K.A., 2019,The Pattern of EDTA-Blood Photo Spectrum in Ovarian Cancer Patients: A Novel Biomarker, IJASEIT, 9(5), 1746-1753.

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PLO and CO mapping

	PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9
CO1	v	v			v				
CO2	v	v							
CO3	v	v							
CO4	v	v							