

## DOUBLE DEGREE | Academic Year 2023/2024

SEMESTER 1			SEMESTER 2		
	SKS	ECTS		SKS	ECTS
English 1	2	3	English 2	2	3
Calculus and Linear Algebra 1	3	4	Ethics and Religious Philosophy	2	3
Physics 1	2	3	Calculus & Linear Algebra 2	3	4
Physics 1 Laboratory	1	2	Physics 2	2	3
Electrical Engineering 1	3	4	Physics 2 Laboratory	1	2
Electrical Engineering 1 Laboratory	1	2	Electrical Engineering 2	3	4
Biology 1	2	4	Electrical Engineering 2 Laboratory	1	2
Biology Laboratory	1	2	Chemistry 2	3	4
Chemistry 1	3	4	Chemistry 2 Laboratory	1	2
Chemistry 1 Laboratory	1	2	Algorithm & Data Structure	3	4
Introduction To Programming	3	4			
<b>Total Mandatory</b>	<b>22</b>		<b>Total Mandatory</b>	<b>21</b>	
<b>Extracurricular Courses</b>			<b>Extracurricular Courses</b>		
German Language and Culture 1	2	0	German Language and Culture 2	2	0
Mandarin Language and Culture 1	2	0	Mandarin Language and Culture 2	2	0
<b>TOTAL</b>	<b>24</b>	<b>30</b>	<b>TOTAL</b>	<b>23</b>	<b>31</b>

SEMESTER 3			SEMESTER 4		
	SKS	ECTS		SKS	ECTS
Internship 1 (Indonesia)	3	10	English 3	2	3
Cytology & Histology	2	3	Pancasila & Civic	3	4
Applied Mathematics	3	4	Introduction to Engineering Statistics	2	3
Electronics	3	4	Sensor & Measurement System	2	3
Electronics Laboratory	1	2	Biochemistry	3	4
Digital System	3	4	Biochemistry Laboratory	1	2
Biomechanics (Statics)	2	3	Biomedical Devices Network	2	3
Introduction to Biomedical Engineering	2	3	Signals & Systems	2	3
Biomedical Physics	2	3	Biomaterials	2	3
			Biomedical Electromagnetics	2	3
			<b>Total mandatory</b>	<b>21</b>	<b>22</b>
			<b>Extracurricular Courses</b>		
			German Language and Culture 3	4	0
			Mandarin Language and Culture 3	4	0
<b>TOTAL</b>	<b>21</b>	<b>36</b>	<b>TOTAL</b>	<b>25</b>	<b>22</b>

SEMESTER 5			SEMESTER 6		
	SKS	ECTS		SKS	ECTS
English 4	2	3	Internship 2 (abroad)	6	30
Indonesian Language	2	2	Elective 1 (abroad)	2	
Biomedical Instrumentation	3	4	Elective 2 (abroad)	2	
Biomedical Instrumentation Laboratory	1	2			
Microcontroller	2	3			
Automatic Control System	2	3			
Digital Signal Processing	2	3			
Anatomy & Physiology	3	4			
Anatomy & Physiology Laboratory	1	2			
Medical Imaging	2	3			
<b>Total Mandatory</b>	<b>20</b>	<b>29</b>			
<b>Extracurricular Courses</b>					
German Language and Culture 4	4	0			
Mandarin Language and Culture 4	4	0			
<b>TOTAL</b>	<b>24</b>	<b>29</b>	<b>TOTAL</b>	<b>10</b>	<b>30</b>

SEMESTER 7			SEMESTER 8		
	SKS	ECTS		SKS	ECTS
English 5	2	3	Training & Competence Certification (PCA)	3	4
Entrepreneurship	2	3	Thesis	6	15
Research Metodology	2	3	Introduction to Clinical Engineering	2	3
Bioinformatics (Computational Biology)	2	3	CPDP (Character Development)	2	3
Elective 3	2	3			
Elective 4	2	3			
Elective 5	2	3			
Elective 6	2	3			
<b>Total mandatory</b>	<b>16</b>		<b>Total mandatory</b>	<b>13</b>	
<b>Elective Subjects</b>					
Medical Information System	2	3			
Hospital Management	2	3			
Artificial Intelligence	2	3			
Mechanics of Implant and Artificial Organ	2	3			
Medical Biotechnology and Biomedical Diagnostics	2	3			
Enzyme Biochemistry	2	3			
Biodynamics and Gait Analysis	2	3			
Biomedical System Design	2	3			
Genomics, Transcriptomics, Proteomics and Metabolomics	2	3			
<b>TOTAL</b>	<b>16</b>	<b>21</b>	<b>TOTAL</b>	<b>13</b>	<b>25</b>

**Total Compulsory : 144 SKS    Total ECTS : 231 ECTS**  
**SKS : Satuan Kredit Semester    ECTS : European Credit Transfer System**

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