



DOUBLE DEGREE | Academic Year 2025/2026

SEMESTER 1	SKS	ECTS
English 1	2	3
Calculus & Linear Algebra 1	3	4
Physics 1	2	3
Physics 1 Laboratory	1	2
Electrical Engineering 1	2	3
Electrical Engineering 1 Laboratory	1	2
Biology	2	4
Biology Laboratory	1	2
Chemistry 1	3	4
Chemistry 1 Laboratory	1	2
Introduction to Programming	2	3
Total Mandatory	20	29
Extracurricular Courses		
German Language and Culture 1	2	0
TOTAL	22	29

SEMESTER 2	SKS	ECTS
English 2	2	3
Ethics and Religious Philosophy	2	3
Calculus & Linear Algebra 2	3	4
Physics 2	2	3
Physics 2 Laboratory	1	2
Electrical Engineering 2	2	3
Electrical Engineering 2 Laboratory	1	2
Chemistry 2	3	4
Chemistry 2 Laboratory	1	2
Algorithm & Data Structure	3	4
Ethics and Religious Philosophy	2	3
Total Mandatory	22	30
Extracurricular Courses		
German Language and Culture 2	2	0
TOTAL	24	33

SEMESTER 3	SKS	ECTS
Internship 1 (Indonesia)	3	10
Cytology & Histology	2	3
Applied Mathematics	3	4
Electronics	3	4
Electronics Laboratory	1	2
Phytochemistry	2	3
Computer-aided Design	2	3
Introduction to Biomedical Engineering	2	3
Biomedical Physics	2	3
English 3	2	3
Total Mandatory	22	34
Extracurricular Courses		
German Language and Culture 3	4	0
TOTAL	26	38

SEMESTER 4	SKS	ECTS
English 4	2	3
Pancasila & Civic	3	4
Introduction to Engineering Statistics	2	3
Sensor & Measurement System	2	3
Biochemistry	3	4
Biochemistry Laboratory	1	2
Biomedical Devices Network	2	3
Microbiology	2	3
Biomaterials	2	3
Total Mandatory	23	39
TOTAL	23	38

SEMESTER 5	SKS	ECTS
Indonesian Language	2	3
Biomedical Instrumentation	3	4
Biomedical Instrumentation Laboratory	1	2
Microcontroller	2	3
Anatomy & Physiology	3	4
Anatomy & Physiology Laboratory	1	2
Digital System	3	4
Herbal and Traditional Industry	2	3
Pharmaceutical Material & Formulation	2	3
Analytical Instrumentation	3	4
Total Mandatory	22	32
TOTAL	20	32

SEMESTER 6	SKS	ECTS
Internship 2 (abroad)	6	30
Elective 5	2	3
Elective 5	2	3
Total Mandatory	6	30
Elective Subjects	4	6
Biomaterials 2 (FHSW)	2	3
Statistics (FHSW)	2	3
Medical Industry 1	2	3
Medical Industry 2	2	3
Analytical Instrumentation	3	4
TOTAL	10	36

SEMESTER 7	SKS	ECTS
English 5	2	3
Entrepreneurship	2	3
Research Methodology	2	3
Bioinformatics (Computational Biology)	2	3
Artificial Intelligence	2	3
Biomedical System Design	2	3
Genomics, Transcriptomics, Proteomics and Metabolomics	2	3
Medical Biotechnology and Biomedical Diagnostics	2	3
Enzyme Biochemistry	2	3
Total Mandatory	8	12
Elective Subjects	8	12
Total	32	47

SEMESTER 8	SKS	ECTS
Professional Competence Assessment (PCA)	3	4
Thesis	6	15
Introduction to Clinical Engineering	2	3
Character and Professional Development Program	2	3
Total Mandatory	13	25
TOTAL	13	25

Total Offered SKS (Sistem Kredit Semester) : 164 SKS

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Total Compulsory : 144 SKS Total ECTS : 249 ECTS

SKS : Satuan Kredit Semester ECTS : European Credit Transfer System

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