

KURIKULUM 2023 DEPARTEMEN TEKNIK BIOMEDIK PROGRAM STUDI SARJANA

2023 CURRICULUM OF BIOMEDICAL ENGINEERING DEPARTMENT FOR UNDERGRADUATE PROGRAM

SEMESTER I		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234101	Anatomi dan Fisiologi <i>Anatomy and Physiology</i>	3
EE234101	Pengantar Teknologi Elektro dan Informatika Cerdas <i>Introduction to Electrical Technology</i>	2
EC234101	Dasar Pemrograman <i>Basic Programming</i>	3
SM234101	Kalkulus 1 <i>Calculus 1</i>	3
SF234101	Fisika 1 <i>Physics 1</i>	5
EB234102	Probabilitas dan Statistika <i>Probability and Statistics</i>	2
Jumlah SKS / Total Credits		18

SEMESTER II		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234203	Rangkaian Listrik <i>Electric Circuits</i>	2
SM234201	Kalkulus 2 <i>Calculus 2</i>	3
SF234203	Fisika Listrik dan Magnet <i>Magnetic and Electric Physics</i>	3
SK234102	Kimia <i>Chemistry</i>	3
EB234201	Dasar Sistem Komunikasi dan Laboratorium <i>Basic Communication Systems and Laboratory</i>	3
EB234202	Teknik Digital dan Laboratorium <i>Digital Techniques and Laboratory</i>	4
Jumlah SKS / Total Credits		18

SEMESTER III		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234301	Dasar Bioelektrokimia <i>Fundamentals of Bioelectrochemistry</i>	3
EB234302	Elektronika Dasar dan Laboratorium <i>Basic Electronics and Laboratory</i>	4
EB234303	Matematika Teknik <i>Engineering Mathematics</i>	3
EB234304	Dasar Pengolahan Sinyal <i>Fundamentals of Signal Processing</i>	4
EB234305	Rangkaian Listrik Lanjut dan Laboratorium <i>Advanced Electric Circuits and Laboratory</i>	3
EB234306	Metode Numerik <i>Numerical Methods</i>	3
Jumlah SKS / Total Credits		20

SEMESTER IV		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234401	Dasar Mikroprosesor dan Mikrokontroler <i>Fundamentals of Microcontrollers and Microprocessors</i>	3
EB234402	Dasar Sistem Pengaturan dan Laboratorium <i>Fundamentals of Control Systems and Laboratory</i>	4
EB234403	Dasar Biomekanika <i>Fundamentals of Biomechanics</i>	3
EB234404	Pengolahan Sinyal Biomedika dan Laboratorium <i>Biomedical Signal Processing and Laboratory</i>	3
EB234405	Biomaterial <i>Biomaterials</i>	3
EB234406	Sistem Instrumentasi Biomedika dan Laboratorium <i>Biomedical Instrumentations System and Laboratory</i>	5
Jumlah SKS / Total Credits		21

SEMESTER V		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234501	Sistem Mikroelektronika Biomedika <i>Microelectronic System in Biomedical Applications</i>	3
EB234502	Pencitraan Biomedika <i>Biomedical Imaging</i>	3
EB234503	Human-Machine Interaction <i>Human-Machine Interaction</i>	3
EB234504	Dasar Sistem Cerdas <i>Fundamentals of Intelligent Systems</i>	3
EB234505	Teknik Biomagnetika <i>Biomagnetic Engineering</i>	3
EB234506	Biomodelling <i>Biomodelling</i>	3
EB2349xx	Mata Kuliah Pilihan <i>Elective Course</i>	3
Jumlah SKS / Total Credits		21

SEMESTER VI		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234601	Teknik Klinika <i>Clinical Engineering</i>	2
EB234602	Kelistrikan Biomedika <i>Electrical Systems in Biomedical Application</i>	2
EB234603	Project Design <i>Project Design</i>	4
EB234604	Kerja Praktik <i>On Job Training</i>	2
EB2349xx	Mata Kuliah Pilihan <i>Elective Course</i>	3
UG234914	Bahasa Inggris <i>English</i>	2
UG234915	Teknopreneur <i>Technopreneurship</i>	2
UG234912	Bahasa Indonesia <i>Indonesian</i>	2
UG234911	Pancasila <i>Pancasila</i>	2
Jumlah SKS / Total Credits		21

SEMESTER VII		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234701	Biocybernetics <i>Biocybernetics</i>	3
EB234702	Analisis Sinyal Nonstasioner <i>Non-stationary Signal Analysis</i>	3
EB234703	Pra Tugas Akhir <i>Preliminary of Final Project</i>	2
EB2349xx	Mata Kuliah Pilihan <i>Elective Course</i>	3
__23xxxx	Mata Kuliah Pengayaan <i>Enrichment Course</i>	3
UG234916	Aplikasi Teknologi dan Transformasi Digital <i>Application of Technology and Digital Transformation</i>	3
UG23490x	Agama <i>Religion Studies</i>	2
UG234913	Kewarganegaraan <i>Civics</i>	2
Jumlah SKS / Total Credits		21

SEMESTER VIII		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234801	Tugas Akhir <i>Final Project</i>	4
Jumlah SKS / Total Credits		4

Mata Kuliah Pilihan Spesialisasi / Elective Courses

A. Instrumentasi Biomedika Cerdas A. Intelligent Biomedical Instrumentation		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234901	Rancangan Sistem Instrumentasi Biomedika Cerdas <i>Intelligent Biomedical Instrumentation Systems Design</i>	3
EB234902	Sistem Telemedicine <i>Telemedicine Systems</i>	3
EB234903	Sistem Diagnosis Berbasis Decision Support System <i>Decision Support Based Diagnosis Systems</i>	3

B. Teknologi Assistif dan Rehabilitasi Medika B. Assistive Technology and Rehabilitation Engineering		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234904	Assistive and Welfare Technologies <i>Assistive and Welfare Technologies</i>	3
EB234905	Robotika Medika <i>Medical Robotics</i>	3
EB234906	Teknik Rehabilitasi <i>Rehabilitation Engineering</i>	3

C. Pencitraan dan Pengolahan Citra Medika C. Medical Imaging and Medical Image Processing		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234907	Pencitraan Ultrasonik <i>Medical Ultrasonic Imaging</i>	3
EB234908	Pengolahan Citra Medika <i>Medical Image Processing</i>	3
EB234909	Multimodal Biomedikal Data Analysis <i>Multimodal Biomedical Data Analysis</i>	3

D. Informatika Medika D. Medical Informatics		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234910	Manajemen Informasi Medika <i>Medical Information Management</i>	3
EB234911	Database Medika dan Optimasi <i>Medical Database and Optimization</i>	3
EB234912	Komputasi Genomik <i>Genomic Computation</i>	3

Mata Kuliah Pengayaan Enrichment Course		
Kode Code	Mata Kuliah Course Name	SKS Credit
EB234301	Dasar Biomekanika <i>Fundamentals of Biomechanics</i>	3
EB234406	Sistem Instrumentasi Biomedika dan Laboratorium <i>Biomedical Instrumentations System and Laboratory</i>	5
EB234504	Dasar Sistem Cerdas <i>Fundamentals of Intelligent Systems</i>	3
UG234917	Kuliah Kerja Nyata Tematik * <i>Community Outreach Program *</i>	3

Intelligent System Approach in Biomedical Engineering Design

