



UNIVERSITAS ISLAM NEGERI
SULTAN SYARIF KASIM RIAU

KURIKULUM PROGRAM STUDI SARJANA (S1) / Bachelor Study Program Curriculum
PROGRAM STUDI TEKNIK ELEKTRO FAKULTAS SAINS DAN TEKNOLOGI / Electrical Engineering
Daftar Mata Kuliah Konsentrasi Energi/ Energy Major Course List

SMT.	KODE/CODE	NAMA	COURSE NAME	KELOMPOK MK/ COURSE GROUP	SEMESTER	SKS/ CREDIT
				TES/TEE/TEG*	GJL/GNP	
1 DASAR SAINS TEKNIK 1						
1	UIN222001	Acidiah Akhlak	Aqidah Akhlak	TEG	1	2
2	UIN222009	Bahasa Inggris	English	TEG	1	2
3	UIN222006	Pancasila & Kewarganegaraan	Pancasila & Citizenship	TEG	1	2
4	TEE221101	Kalkulus	Calculus	TES	1	4
5	TEE221102	Matematika Teknik	Engineering Mathematics	TES	1	3
6	TEE221103	Mekanika, Gelombang dan Optika	Mechanics, Waves and Optics	TES	1	4
7	TEE221104	Sinyal dan Sistem	Signal and System	TES	1	3
Jumlah/Total						20
2 DASAR SAINS TEKNIK 2						
1	UIN222003	Studi Alqur'an	The Qur'an	TEG	2	2
2	UIN222002	Fiqh	Fiqh	TEG	2	2
3	TEE221205	Aljabar Linier dan Matematika Diskrit	Linear Algebra and Discrete Mathematics	TES	2	3
4	TEE221206	Listrik dan Magnetika	Electricity and Magnetism	TES	2	4
5	TEE221207	Elektromagnetika Teknik	Electromagnetic Engineering	TES	2	3
6	TEE221208	Dasar Telekomunikasi	Fundamentals of Telecommunications	TEE	2	3
7	TEE221209	Praktikum Sains Teknik	Engineering Science Lab.	TES	2	1
8	TEE221210	Pengantar Studi Energi	Introduction to Energy Studies	TEE	2	2
Jumlah/Total						20
3 TEKNIK ELEKTRO						
1	UIN222008	Bahasa Arab	Arabic	TEG	3	2
2	TEE221311	Rangkaian Listrik	Electrical Circuits	TEE	3	3
3	TEE221312	Elektronika	Electronics	TEE	3	3
4	TEE221313	Sistem Kendali	Control Systems	TEE	3	3
5	TEE221314	Sistem Digital	Digital Systems	TEE	3	3
6	TEE221315	Menggambar Teknik	Engineering Drawings	TEE	3	2
7	TEE221316	Sistem Tenaga Listrik	Electric Power Systems	TEE	3	3
8	TEE221317	Praktikum Teknik Elektro	Electrical Engineering Lab.	TEE	3	1
Jumlah/Total						20
4 MODUL KOMPUTASI KETEKNIKAN						
1	UIN222004	Studi Hadist	Hadith	TEG	4	2
2	TEE221418	Statistika Terapan	Applied Statistics	TES	4	4
3	TEE221419	Pengantar Teknologi Informasi	Introduction to Information Technology	TEE	4	2
4	TEE221420	Sistem Mikroprosesor	Microprocessor Systems	TEE	4	3
5	TEE221421	Algoritma & Pemrograman	Algorithms & Programming	TEE	4	3
6	TEE221422	Komputasi Teknik Elektro	Electrical Engineering Computations	TEE	4	2
7	TEE221423	Pemrograman untuk Ilmu Data	Programming for Data Science	TEE	4	3
8	TEE221424	Proyek Berkelompok Komputasi Keteknikan	Engineering Computing Group Projects	TEE	4	2
Jumlah/Total						21
5 MODUL DASAR-DASAR ENERGI DAN SISTEM TENAGA LISTRIK						
1	UIN222005	Sejarah Islam Asia Tenggara dan Tamaddun Melayu	History of Islam in Southeast Asia and Malay Culture	TEG	5	2
2	TEN221501	Mesin-Mesin Listrik	Electric Machines	TEE	5	2
3	TEN221502	Elektronika Daya	Power Electronics	TEE	5	3
4	TEN221503	Kimia Energi Dasar	Fundamentals of Energy Chemistry	TEE	5	3
5	TEN221504	Proses Energi dan Termodinamika	Energy Processes and Thermodynamics	TEE	5	3
7	TEN221505	Energi Terbarukan dan Konservasi Energi	Renewable Energy and Energy Conservation	TEE	5	3
8	TEN221506	Proyek Berkelompok Dasar-Dasar Energi dan Sistem Tenaga Listrik	Fundamentals of Energy and Electric Power Group Projects	TEE	5	2
Jumlah/Total						18
6 MODUL ENERGI DAN SISTEM TENAGA LISTRIK LANJUT						
1	UIN222007	Bahasa Indonesia	Indonesian	TEG	6	2
2	TEE221625	Metodologi Penelitian	Research Methodology	TEE	GNP & GNI	2
3	TEN221607	Analisis Sistem Tenaga	Power System Analysis	TEE	6	3
4	TEN221608	Proteksi Sistem Tenaga Listrik	Electric Power System Protections	TEE	6	3
5	TEN221609	Teknik Tegangan Tinggi	High Voltage Engineering	TEE	6	2
6	TEN221610	Ekonomi dan Kebijakan Energi	Energy Economics and Policy	TEE	6	2
7	TEN221611	Perancangan Sistem Energi Terbarukan	Renewable Energy System Design	TEE	6	3
8	TEN221612	Proyek Berkelompok Energi dan Sistem Tenaga Listrik Lanjut	Advanced Energy and Electric Power Group Projects	TEE	6	2
Jumlah/Total						19
7 MODUL PILIHAN BEBAS						
1	UIN222017	Kuliah Kerja Nyata/Pilihan Bebas	Community Service Programs / Free Elective Course	TEG	GNP & GNI	4
2	TEE221026	Kerja Praktek / Pilihan Bebas	Internships / Free Elective Course	TEG	GNP & GNI	2
3	TEE221027	Kewirausahaan dan Manajemen Proyek /Pilihan Bebas	Entrepreneurship and Project Management / Free Elective Courses	TEG	GNP & GNI	2
4	TEN2230XX	Pilihan 1/Pilihan Bebas	Elective Courses 1/ Free Elective Course	TEE	GNP & GNI	3
5	TEN2230XX	Pilihan 2/Pilihan Bebas	Elective Courses 2/ Free Elective Course	TEE	GNP & GNI	3
6	TEN2230XX	Pilihan 3/Pilihan Bebas	Elective Courses 3/ Free Elective Course	TEE	GNP & GNI	2
7	TEN2230XX	Pilihan 4/Pilihan Bebas	Elective Courses 4/ Free Elective Course	TEE	GNP & GNI	2
8	TEN2230XX	Pilihan 5/Pilihan Bebas	Elective Courses 5/ Free Elective Courses	TEE	GNP & GNI	2
Jumlah/Total						20
8 MODUL TUGAS AKHIR						
1	TEE221028	Proposal Tugas Akhir dan Seminar	Final Project Proposals and Seminars	TEG	GNP & GNI	3
2	TEE221029	Laporan Tugas Akhir	Final Project Reports	TEG	GNP & GNI	3
Jumlah/Total						6
Total SKS/Total Credit						144

MATA KULIAH PILIHAN DAN MBKM / ELECTIVES AND MBKM**

No.	Kode/Code	Nama MK	COURSE NAME	Semester	SKS/Credit
MATA KULIAH PILIHAN BIDANG ENERGI					
1	TEN223013	Kualitas Daya Listrik	Energy Course Elective Electric Power Quality	GNP & GNI	3
2	TEN223014	Perancangan Sistem Tenaga Listrik	Electric Power System Design	GNP & GNI	3
3	TEN223015	Transmisi dan Distribusi Tenaga Listrik	Electric Power Transmissions and Distributions	GNP & GNI	3
4	TEN223016	Kendaraan Listrik	Electric Vehicles	GNP & GNI	3
5	TEN223017	Sistem Operasi Tenaga Listrik	Electric Power Operating Systems	GNP & GNI	3
6	TEN223018	Bahan-bakar dari Biomassa	Fuels from Biomass	GNP & GNI	2
7	TEN223019	Audit Energi	Energy Audits	GNP & GNI	2
8	TEN223020	Teknologi Efisiensi Industri & Komersial	Energy Efficient Technologies for Industry & Commercial	GNP & GNI	2
9	TEN223021	Energi Berkelanjutan di Negara Kepulauan	Sustainable Energy in Archipelago	GNP & GNI	2
10	TEN223022	Manajemen Energi	Energy Management	GNP & GNI	2
11	TEN223023	Pemodelan Energi	Energy Modeling	GNP & GNI	2
12	TEN223024	Sumber-sumber Energi Terbaru	Renewable Energy Sources	GNP & GNI	2
13	TEN223025	Analisis Data Sistem Energi	Energy System Data Analysis	GNP & GNI	2
14	TEN223026	Jaringan Listrik Cerdas	Smart Grids	GNP & GNI	2
15	TEE223030	Sosioteknologi	Socio-Technology	GNP & GNI	2
16	TEE223031	Etika Islam Profesional	Professional Islamic Ethics	GNP & GNI	2
17	TEE223032	Enabling Skill	Enabling Skill	GNP & GNI	3
18	TEE223033	Komunikasi Profesional	Professional Communication	GNP & GNI	2
19	TEE223034	Sistem Kendali Lanjut	Advanced Control System	GNP & GNI	3
20	TEE223035	Proses Kimia Industri	Industrial Chemical Process	GNP & GNI	3
21	TEE223036	Pemrograman Terapan	Applied Programming	GNP & GNI	2
22	TEE223037	Sistem Kendali Cerdas	Intelligent control system	GNP & GNI	3
MATA KULIAH MBKM - MAGANG ATAU PRAKTIK KERJA					
1	FST222003	Organisasi dan manajemen Perusahaan	Internship Enterprise organization and management	GNP & GNI	4
2	FST222004	Pelatihan kerja	Job training	GNP & GNI	4
3	FST222005	Keterampilan kerja	Job skills	GNP & GNI	8
4	FST222006	Sertifikasi Profesi	Professional Certification	GNP & GNI	2
5	FST222007	Mitigasi Resiko	Risk Mitigation	GNP & GNI	2
MATA KULIAH MBKM - KEGIATAN WIRUSAHA					
1	FST222008	Pengantar Bisnis	Entrepreneurship Business Introduction	GNP & GNI	2
2	FST222009	Manajemen Bisnis	Business management	GNP & GNI	3
3	FST222010	Pemasaran Digital	Digital Marketing	GNP & GNI	2
4	FST222011	Keuangan Bisnis	Business Finance	GNP & GNI	3
5	FST222012	Analisis Lingkungan Usaha	Business Environment Analysis	GNP & GNI	2
6	FST222013	Studi Kelayakan dan Rencana Bisnis	Feasibility Study and Business Plan	GNP & GNI	3
7	FST222014	Praktek Wirausaha	Entrepreneurial Practice	GNP & GNI	5
MATA KULIAH MBKM - STUDI/PROYEK INDEPENDEN					
1	FST222015	Sistem dan Inovasi	Independent Study/Project System and Innovation	GNP & GNI	2
2	FST222016	Metodologi Penelitian dan Pengembangan	Research and Development Methodology	GNP & GNI	2
3	FST222017	Rencana Riset dan Pengembangan	Research and Development Plan	GNP & GNI	2
4	FST222018	Produk/Karya Inovasi	Product/Innovation Works	GNP & GNI	8
5	FST222019	Praktek Studi Independen	Independent Study Practice	GNP & GNI	4
6	FST222020	Sertifikasi Studi Independen	Independent Study Certification	GNP & GNI	2
MATA KULIAH MBKM - PROYEK KEMANUSIAAN / MEMBANGUN DESA/KKN TEMATIK					
1	FST222021	Pemetaan Potensi dan Permasalahan Desa	Humanitarian Project/Village Development Mapping of Village Potentials and Problems	GNP & GNI	3
2	FST222022	Pembangunan Masyarakat	Community Development	GNP & GNI	2
3	FST222023	Pengembangan Desa	Village Development	GNP & GNI	5
4	FST222024	Manajemen Proyek Kemanusiaan	Humanitarian Project Management	GNP & GNI	3
5	FST222025	Metodologi Proyek Kemanusiaan	Humanitarian Project Methodology	GNP & GNI	2
6	FST222026	Praktek Pemberdayaan Kemanusiaan	Humane Empowerment Practice	GNP & GNI	5
MATA KULIAH MBKM - PENELITIAN ATAU RISET					
1	FST222027	Keselamatan Laboratorium/Lapangan	Research Laboratory/Field Safety	GNP & GNI	2
2	FST222028	Operasional Instrumen Riset	Operational Research Instruments	GNP & GNI	2
3	FST222029	Analisis Data Eksperimental / Observasi/ Survey	Experimental Data Analysis / Observation / Survey	GNP & GNI	4
4	FST222030	Asistensi Riset	Research Assistant	GNP & GNI	8
5	FST222031	Komunikasi Ilmiah	Scientific Communication	GNP & GNI	4
MATA KULIAH MBKM - ASISTENSI MENGAJAR DI SATUAN PENDIDIKAN					
1	FST222032	Media pembelajaran	Teaching Assistance at an Educational Institution Learning Media	GNP & GNI	2
2	FST222033	Desain Pembelajaran	Learning Design	GNP & GNI	2
3	FST222034	Evaluasi pembelajaran	Learning Evaluation	GNP & GNI	2
4	FST222035	Telaah Kurikulum Satuan Pendidikan	Study on the Education Unit Curriculum	GNP & GNI	2
5	FST222036	Praktek Lapangan Pembelajaran	Teaching Practice	GNP & GNI	8
6	FST222037	Metodologi Penelitian Pendidikan	Educational Research Methodology	GNP & GNI	2
7	FST222038	Pembelajaran Mikro	Micro Teaching	GNP & GNI	2

* TES: MK Sains, TEE: MK Inti Teknik Elektro, TEG: MK Umum

* MBKM refers to the right of students to take a maximum of three semesters outside their home study programs, equivalent to 60 SKS/credit or 20 SKS/credit per semester.