

STRUKTUR KURIKULUM PROGRAM STUDI TEKNIK MESIN S2

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1		1st SEMESTER	
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
	Wajib Peminatan	Specialization Course	8
		Subtotal	12
SEMESTER 2		2nd SEMESTER	
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
	Wajib Peminatan	Specialization Course	4
		Subtotal	10
SEMESTER 3		3rd SEMESTER	
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
	Wajib Peminatan	Specialization Course	4
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	10
SEMESTER 4		4th SEMESTER	
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	4
		Total	44

1. Konversi Energi

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1			
1st SEMESTER			
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
ENME801101	Termodinamika Lanjut	Advanced Thermodynamics	4
ENME801102	Dinamika Fluida dan Perpindahan Kalor Lanjut	Advanced Fluid Dynamics and Heat Transfer	4
		Subtotal	12
SEMESTER 2			
2nd SEMESTER			
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
ENME802103	Optimasi Sistem Energi	Energy Optimization System	4
		Subtotal	10
SEMESTER 3			
3rd SEMESTER			
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
ENME803104	Pembangkitan Daya Termal	Thermal Power Generation	4
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	12
SEMESTER 4			
4th SEMESTER			
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	10
		Total	44

MK PILIHAN Peminatan Konversi Energi

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 3			
3rd SEMESTER			
ENME803105	Motor Pembakaran Dalam	Internal Combustion Engine	4
ENME803106	Pengukuran dan Visualisasi Aliran Terapan	Applied Flow Measurement and Visualization	4
ENME803107	Aplikasi CFD	CFD Application	4
ENME803196	Propulsi Jet dan Roket	Jet and Rocket Propulsion	4
ENME803125	Energi dan Lingkungan	Energy and Environment	4
ENME803108	Teknik Refrijerasi	Refrigeration Engineering	4
ENME803124	Audit Energi	Energy Audit	4
KODE SEMESTER 4			
4th SEMESTER			
ENME804109	Rekayasa Penukar Kalor dan Massa	Heat and Mass Transfer Engineering	4
ENME804110	Teknik Pembakaran	Combustion Engineering	4
ENME804111	Teknik Aerodinamika	Aerodynamics Engineering	4
ENME804112	Mesin - Mesin Turbo	Turbomachinery	4

2. Sistem Utilitas Bangunan dan Keselamatan Kebakaran

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1		1st SEMESTER	
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
ENME801129	Radiasi	Radiation	2
ENME801113	Sistem Ventilasi dan Tata Udara	Ventilation and Air Conditioning System	4
ENME801130	Pengantar Dinamika Api	Introduction to Fire Dynamics	2
		Subtotal	12
SEMESTER 2		2nd SEMESTER	
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
ENME802131	Sistem Proteksi Kebakaran	Fire Protection System	2
ENME802132	Sistem Mekanikal dan Elektrikal Gedung	Building Mechanical and Electrical System	2
		Subtotal	10
SEMESTER 3		3rd SEMESTER	
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
ENME803133	Tugas Perencanaan Sistem Utilitas Bangunan Gedung	Assignment of Building Utility System Design	2
ENME801121	Sistem Manajemen Energi	Energy Management System	2
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	8
SEMESTER 4		4th SEMESTER	
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	10
		Total	44

MK PILIHAN Peminatan Sistem Utilitas Bangunan dan Keselamatan Kebakaran

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 3		3rd SEMESTER	
ENME803134	Dinamika Api dalam Ruang dan Pemodelan	Enclosure Fire Dynamics and Modelling	4
ENME803115	Sistem Ruang Bersih	Clean Room	4
ENME803116	Sistem Plambing dan Pengolahan Air Limbah	Plumbing and Waste Water Treatment System	4
ENME803117	Asesmen Lingkungan Bangunan Gedung	Building Environment Assessment	4
ENME803135	Teknik dan Strategi Pemadaman Kebakaran	Fire Fighting Engineering and Strategy	4
ENME803136	Manajemen Keselamatan Kebakaran pada Bangunan	Fire Safety Management in Building	4
KODE	SEMESTER 4	4th SEMESTER	SKS
ENME802103	OPTIMASI SISTEM ENERGI	ENERGY SYSTEM OPTIMIZATION	4
ENME804118	Perancangan Sistem Mekanikal Bangunan Gedung	Mechanical system for Building	4
ENME804119	Akustik	Accoustics	4
ENME804120	Manajemen Pemeliharaan Utilitas Bangunan Gedung	Maintenance Management of Building Utility	4
ENME804137	Teknik Investigasi Kebakaran	Fire Investigation Engineering	4
ENME804138	Evaluasi dan Pemeliharaan Sistem Proteksi Kebakaran	Evaluation and Maintenance of Fire Protection System	4
ENME804139	Proteksi Kebakaran di Industri Proses	Fire Protection in Process Industry	4

3. Perancangan dan Manufaktur

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1		1st SEMESTER	
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
ENME801140	Material dan Proses Manufaktur	Materials and Manufacturing Processes	4
ENME801141	Metodologi Perancangan dan Pengembangan Produk	Product Design and Development Methodology	4
		Subtotal	12
SEMESTER 2		2nd SEMESTER	
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
ENME802142	Integrasi Teknologi Perancangan dan Manufaktur	Design and Manufacturing Technology Integration	4
		Subtotal	14
SEMESTER 3		3rd SEMESTER	
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
ENME803143	Kegagalan Mekanikal	Mechanical Failure	4
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	12
SEMESTER 4		4th SEMESTER	
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	10
		Total	44

MK PILIHAN Peminatan Perancangan dan Manufaktur

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 3		3rd SEMESTER	
ENME803145	Pengembangan Produk Komposit	Composite Product Development	4
ENME803146	Finite Element dan Multiphysics	Finite Element and Multiphysics	4
ENME803147	Perancangan dan Pengembangan Produk Edukasi	Toy Production Design	4
ENME803161	Proses Permesinan Mikro	Micromachining Process	4
ENME803144	Dinamika Sistem Mekanikal	Dynamics of Mechanical System	4
SEMESTER 4		4th SEMESTER	
ENME804148	Perancangan untuk Manufaktur dan Perakitan	DESIGN FOR MANUFACTURING AND ASSEMBLY	4
ENME804149	Kebisingan dan Getaran	Noise and Vibration	4
ENME804162	Laser Assisted Process	Laser Assisted Process	4

4. Sistem Manufaktur dan Otomasi

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1		1st SEMESTER	
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
ENME801150	Manajemen Sistem Informasi Manufaktur	Management of Manufacturing Information System	4
ENME801151	Proses dan Sistem Manufaktur	Manufacturing System and Processes	4
		Subtotal	12
SEMESTER 2		2nd SEMESTER	
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
ENME802152	Otomasi dan Robotika	Automation and Robotics	4
		Subtotal	10
SEMESTER 3		3rd SEMESTER	
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
ENME803153	Sistem Machine Vision	Machine Vision System	4
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	12
SEMESTER 4		4th SEMESTER	
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	10
		Total	44

MK PILIHAN Peminatan Sistem Manufaktur dan Otomasi

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 3		3rd SEMESTER	
ENME803154	Sistem Manajemen Produksi dan Mutu	Quality and Production Management System	4
ENME803174	Manajemen Risiko	Risk Management	4
SEMESTER 4		4th SEMESTER	
ENME804155	CAD/CAM	CAD/CAM	4
ENME804156	Penilaian Kinerja Manufaktur	Manufacturing Performance Assessment	4

5. Teknik Kendaraan dan Peralatan Berat

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1		1st SEMESTER	
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
ENME801163	Rekayasa Kendaraan dan Alat Berat	Vehicle Engineering and Heavy Duty Equipment	4
ENME801164	Sistem Penggerak Mula dan Penyalur Daya	Prime Mover and Powertrain System	4
		Subtotal	12
SEMESTER 2		2nd SEMESTER	
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
ENME802165	Rekayasa Rangka dan Badan Kendaraan	Vehicle Frame and Body Engineering	4
		Subtotal	10
SEMESTER 3		3rd SEMESTER	
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
ENME803166	Sistem Pengendalian Kendaraan	Vehicle Control System	4
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	12
SEMESTER 4		4th SEMESTER	
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	10
		Total	44

MK PILIHAN Peminatan Teknik Kendaraan dan Peralatan Berat

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 3		3rd SEMESTER	
ENME803167	Teknologi Mutakhir Kendaraan	Modern Vehicle Technology	4
ENME803195	Peralatan Pengeboran Minyak dan Gas	Oil and Gas Drilling Equipment	4
SEMESTER 4		4th SEMESTER	
ENME804168	Teknik Kendaraan Rel	Railway Engineering	4
ENME804197	Mesin dan Peralatan Pengangkat	Handling and Construction Equipment	4
ENME804198	Sistem Kendali dan Stabilitas Pesawat Terbang	Airplane Control System and Stability	4

6. Sumber Daya dan Teknologi Maritim

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 1		1st SEMESTER	
ENME801001	Matematika Teknik Lanjut	Advanced Engineering Mathematics	4
ENME801179	Termofluida Lanjut	Advanced Thermofluid	4
ENME801180	Sumber Daya Maritim	Maritime Resources and Technologies	4
		Subtotal	12
SEMESTER 2		2nd SEMESTER	
ENME802002	Desain Penelitian	Design of Experiment	2
ENME802003	Penulisan Akademik	Academic Writing	2
ENME802004	Komputasi Teknik	Engineering Computation	2
ENME802181	Teknologi dan Manajemen Maritim	Maritime Engineering and Management	4
		Subtotal	10
KODE SEMESTER 3		3rd SEMESTER	
ENME800005	Publikasi Ilmiah	Scientific Publication	2
ENME800006	Seminar	Seminar	2
ENME803182	Energi Laut	Ocean Energy	4
	Pilihan Peminatan #1	Elective Course #1	4
		Subtotal	12
KODE SEMESTER 4		4th SEMESTER	
ENME800007	Tesis	Thesis	6
	Pilihan Peminatan #2	Elective Course #2	4
		Subtotal	10
		Total	44

MK PILIHAN Peminatan Sumber Daya dan Teknologi Maritim

Kode	MATA KULIAH	SUBJECT	sks
SEMESTER 3		3rd SEMESTER	
ENME803183	Bangunan Lepas Pantai	Marine and Offshore Structure*	4
ENME803184	Manajemen Transportasi Laut dan Kepelabuhan	Sea Transportation and Port Management *	4
ENME803185	Hukum dan Peraturan Kemaritiman	Maritime Law and regulation*	4
SEMESTER 4		4th SEMESTER	
ENME804186	Kapal Khusus	Special Ship Project	4
ENME804187	Manajemen Produksi Kapal	Ship Production Management*	4
ENME802103	Optimasi Sistem Energi	Energy Optimization System	4
ENME804188	Manajemen Energi Maritim	Maritime Energy Management	4
ENME804189	Keselamatan Kemaritiman	Maritime Safety	4
ENME804190	Teknik Las Lanjut	Advanced Welding Engineering	4

SILABUS MATA KULIAH S2 TEKNIK MESIN

