

**STRUKTUR KURIKULUM PROGRAM STUDI MAGISTER TEKNIK FISIKA
BIDANG STUDI REKAYASA INSTRUMENTASI**

Semester I

No	Kode	Mata Kuliah	SKS
1	TF185101	Fisika Teknik Lanjut <i>Advanced System Dynamics</i>	3
2	TF185102	Matematika Teknik Lanjut <i>Advanced Engineering Mathematics</i>	3
3	TF185103	Instrumentasi Lanjut <i>Advanced Instrumentation</i>	2
4	TF185104	Dinamika Sistem Lanjut <i>Advanced System Dynamics</i>	2
JUMLAH SKS			10

Semester II

No	Kode	Mata Kuliah	SKS
1	TF185201	Kontrol Otomatik Lanjut <i>Advanced Automatic Control</i>	2
2	TF185202	Optimisasi Sistem <i>System Optimization</i>	2
3	TF185203	Pemrosesan Sinyal <i>Signal Processing</i>	2
4	TF185271	Metodologi Penelitian dan Proposal Tesis <i>Research Methodology and Thesis's Proposal</i>	3
JUMLAH SKS			9

Semester III

No	Kode	Mata Kuliah	SKS
1	TF185301	Rekayasa Desain <i>Engineering Design</i>	2
2	TF185371	Internship <i>Internship</i>	2
3	TF1853xx	MK Pilihan-1 <i>Elective Courses</i>	2
4	TF1853xx	MK Pilihan-2 <i>Elective Courses</i>	2
JUMLAH SKS			8

Semester IV

No	Kode	Mata Kuliah	SKS
1	TF1853xx	MK Pilihan-3 <i>Elective Courses</i>	2
2	TF1854xx	MK Pilihan-4 <i>Elective Courses</i>	2
3	TF185471	Tesis <i>Thesis</i>	5
JUMLAH SKS			9

Mata Kuliah Pilihan/*Elective Courses*

■ **Bidang Peminatan Instrumentasi Industri**

No	Kode	Nama Mata Kuliah	SKS
1	TF185311	Kontrol Prediktif <i>Predictive Control</i>	2
2	TF185312	Pengendalian Proses secara Statistik <i>Statistical Process Control</i>	2
3	TF185313	Kecerdasan Buatan untuk Sistem Instrumentasi <i>Artificial Intelligence for Instrumentation System</i>	2
4	TF185411	Monitoring Getaran <i>Vibration Monitoring</i>	2
5	TF185412	Manajemen Keselamatan Proses <i>Process Safety Management</i>	2
6	TF185413	Teknologi Sensor dan Transmitter <i>Sensors and Transmitters Technology</i>	2

■ **Bidang Peminatan Sistem Fotonik**

No	Kode	Nama Mata Kuliah	SKS
1	TF185331	Sensor Fotonik <i>Photonic Sensors</i>	2
2	TF185332	Metrologi Optis Lanjut <i>Advanced Optical Metrology</i>	2
3	TF185333	Optika Kuantum <i>Quantum Optics</i>	2
4	TF185431	Material Fotonik untuk Energi Terbarukan <i>Photonic Materials for Renewable Energy</i>	2
5	TF185432	Perangkat Fotonik <i>Photonic Devices</i>	2
6	TF185433	Pengembangan Sistem Fotonik <i>Photonic Systems Development</i>	2
7	TF185434	Komunikasi Data Optis <i>Optical Data Communication</i>	2

■ **Bidang Peminatan *Medical Engineering***

No	Kode	Nama Mata Kuliah	SKS
1	TF185321	Fisika Tubuh Manusia <i>Physics of Human Body</i>	2
2	TF185322	Assesmen Teknologi Kesehatan <i>Health Technology Assesments</i>	2
3	TF185323	Instrumentasi Medis <i>Medical Instrumentation</i>	2
4	TF185324	Psikoakustik <i>Psycho Acoustics</i>	2
5	TF185421	Teknologi Pencitraan Medis <i>Medical Imaging Technologies</i>	2
6	TF185422	Dasar Clinical Engineering <i>Fundamental of Clinical Engineering</i>	2
7	TF185423	Fotonika Biomedis <i>Biomedical Photonics</i>	2
8	TF185424	Radiasi dan Proteksi <i>Radiation and Protection</i>	2