

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

Semester I

No	Kode	Mata Kuliah	SKS
1	TF186101	Metodologi Penelitian Lanjut <i>Advanced Research Methodology</i>	3
2	TF186102	Filsafat dan Etika dalam Sains Rekayasa <i>Philosophy and Ethics in Engineering Sciences</i>	3
3	TF1861xx	MK Pilihan-1 <i>Elective Courses</i>	3
4	TF1861xx	MK Pilihan-2 <i>Elective Courses</i>	3
JUMLAH SKS			12

Semester II

No	Kode	Mata Kuliah	SKS
1	TF1862xx	MK Pilihan-3 <i>Elective Courses</i>	3
2	TF186271	Proposal Disertasi <i>Dissertation's Proposal</i>	3
JUMLAH SKS			6

Semester III

No	Kode	Mata Kuliah	SKS
1	TF186371	Seminar Kemajuan Tahap I <i>Dissertation's Progress Seminar I</i>	5
Jumlah SKS			5

Semester IV

No	Kode	Mata Kuliah	SKS
1	TF186471	Seminar Kemajuan Tahap II <i>Dissertation's Progress Seminar II</i>	5
JUMLAH SKS			5

Semester V

No	Kode	Mata Kuliah	SKS
1	TF186571	Seminar Kemajuan Tahap III <i>Dissertation's Progress Seminar III</i>	5
Jumlah SKS			5

Semester VI

No	Kode	Mata Kuliah	SKS
1	TF186671	Seminar Kemajuan Tahap IV <i>Dissertation's Progress Seminar IV</i>	5
2	TF186673	Ujian Terbuka Disertasi <i>Dissertation Examination (Open)</i>	3
3	TF186673	Ujian Tertutup Disertasi <i>Dissertation Examination (Closed)</i>	3
JUMLAH SKS			11

Mata Kuliah Pilihan/*Elective Courses*

■ **Bidang Rekayasa Instrumentasi**

No	Kode	Nama Mata Kuliah	SKS
1	TF186111	Pengolahan Data Multivariat <i>Multivariate Data Processing</i>	3
2	TF186112	Pemodelan Sistem <i>System Modelling</i>	3
3	TF186113	Sistem Kontrol Lanjut <i>Advanced Control Systems</i>	3
4	TF186211	Sistem Instrumentasi Lanjut <i>Advanced Instrumentation Systems</i>	3
5	TF186212	Optimisasi Sistem <i>System Optimization</i>	3

■ **Bidang Vibrasi dan Akustik**

No	Kode	Nama Mata Kuliah	SKS
1	TF186141	Telinga dan Pendengaran <i>Ear and Hearing</i>	3
2	TF186142	Vibrasi dan Akustik <i>Vibration and Acoustics</i>	3
3	TF186143	Pemrosesan Sinyal Array <i>Array Signal Processing</i>	3
4	TF186241	Algoritma Pembelajaran Mesin <i>Machine Learning Algorithm</i>	3
5	TF186242	Akustika Bawah Air <i>Underwater Acoustics</i>	3

■ **Bidang Rekayasa Fotonika**

No	Kode	Nama Mata Kuliah	SKS
1	TF186122	Material Fotonik <i>Photonic Materials</i>	3
2	TF186123	Komputasi Optik dan Photonics <i>Optical dan Photonic Computation</i>	3
3	TF186121	Pengembangan Sistem Fotonik <i>Photonic System Developments</i>	3
4	TF186221	Kapita Selektif Optik dan Fotonika <i>Capita Selecta on Optics and Photonics</i>	3
5	TF186222	Analisa dan Pencitra Multimodal Spektroskopi <i>Multimodal Spectroscopic Analysis and Imaging</i>	3

■ **Bidang Rekayasa Material**

No	Kode	Nama Mata Kuliah	SKS
1	TF186151	Dasar-dasar Material Fungsional <i>Fundamentals of Functional Materials</i>	3
2	TF186152	Struktur Material Lanjut <i>Advanced Material Structures</i>	3
3	TF186251	Kinetika Material Lanjut <i>Advanced Material Kinetics</i>	3

■ **Bidang Rekayasa Energi**

No	Kode	Nama Mata Kuliah	SKS
1	TF186132	Pemodelan Energi <i>Energy Modelling</i>	3
2	TF186133	Sistem dan Distribusi Energi <i>Energy Systems and Distribution</i>	3
3	TF186231	Desain Sistem Thermal <i>Thermal Systems Design</i>	3
4	TF186232	Dinamika Fluida Lanjut <i>Advanced Fluid Dynamics</i>	3