**Struktur Kurikulum**

**Matakuliah Dasar Pengembangan Karakter (MDPK)**

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| Sandi | Nama Mata Kuliah | | SKS | JS | T/P/L | W/P | Semester Sajian | Prasyarat |
| UNIVUM6001 | Pendidikan Agama  Islam \*) | Islamic Religion Education | 3 | 3 | T | W | 1 |  |
| UNIVUM6002 | Pendidikan Agama Protestan \*) | Christian Religion Education | 3 | 3 | T | W | 1 |  |
| UNIVUM6003 | Pendidikan Agama Katholik \*) | Chatolic Religion Education | 3 | 3 | T | W | 1 |  |
| UNIVUM6004 | Pendidikan Agama Hindu \*) | Hinduism Religion Education | 3 | 3 | T | W | 1 |  |
| UNIVUM6005 | Pendidikan Agama Buddha \*) | Buddhism Religion Education | 3 | 3 | T | W | 1 |  |
| UNIVUM6006 | Pendidikan Agama Konghuchu \*) | Konghuchu Religion Education | 3 | 3 | T | W | 1 |  |
| UNIVUM6014 | Pendidikan Kepercayaan \*) |  | 3 | 3 | T | W | 1 |  |
| UNIVUM6007 | Pendidikan Pancasila | Pancasila Education | 2 | 2 | T | W | 2 |  |
| UNIVUM6008 | Pendidikan Kewarganegaraan | Civic Education | 2 | 2 | T | W | 4 |  |
| UNIVUM6009 | Pendidikan Bahasa Indonesia | Bahasa Indonesia | 2 | 2 | T | W | 3 |  |
| UNIVUM6010 | Manajemen Inovasi | Innovation Management | 3 | 3 | T | W | 6 |  |
| **Jumlah SKS MDPK Program Studi S1 Teknik Sipil** | |  | **12** |  |  |  |  |  |

\*) dipilih sesuai dengan agama yang dianut

**Matakuliah Keilmuan dan Keahlian (MKK)**

| Sandi | | Nama Mata Kuliah | | SKS | JS | T/P/  L | W/P | | Semester Sajian | | Prasyarat | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Fakultas** | | | | | | | | | | | |
| FTEKUM6001 | | Bahasa Inggris Profesi | English for Professional Purposes | 2 | 2 | T | W | | 2 | |  | |
| FTEKUM6002 | | Metodologi Penelitian | Research Methodology | 2 | 2 | T | W | | 5 | |  | |
| FTEKUM6003 | | Kesehatan dan Keselamatan Kerja | Occupational Health and Safety | 2 | 2 | T | W | | 7 | |  | |
| FTEKUM6004 | | Kewirausahaan | Entrepreneurship | 2 | 2 | T | W | | 4 | |  | |
|  | **Inti Keilmuan – Struktur dan Material Konstruksi** | | | | | | | | | | | |
| NTSIUM6001 | | Mekanika Statis Tentu | Statiscally Determinate Mechanics | 3 | 3 | T | W | | 1 | |  | |
| NTSIUM6002 | | Mekanika Bahan | Mechanics of Materials | 3 | 3 | T | W | | 1 | |  | |
| NTSIUM6003 | | Teknologi Bahan Konstruksi  (Praktikum 1sks) | Construction Materials Technology | 3 | 6 | T&P | W | | 1 | |  | |
| NTSIUM6004 | | Mekanika Statis Tak Tentu | Statiscally Indeterminate Mechanics | 3 | 3 | T | W | | 2 | | NTSIUM6001 | |
| NTSIUM6005 | | Balok dan Plat Beton Bertulang | Reinforced Concrete Beams and Plates | 3 | 3 | T | W | | 3 | | NTSIUM6003 | |
| NTSIUM6006 | | Struktur Rangka Baja | Steel Truss Structures | 2 | 2 | T | W | | 3 | | NTSIUM6003 | |
| NTSIUM6007 | | Kolom dan Pondasi Beton Bertulang | Reinforced Concrete Columns and Foundation | 2 | 2 | T | W | | 4 | | NTSIUM6005 | |
| NTSIUM6008 | | Struktur Portal Baja | Steel Frame Structure | 3 | 3 | T | W | | 4 | | NTSIUM6006 | |
| NTSIUM6009 | | Dinamika Struktur | Dynamics of Strucutres | 2 | 2 | T | W | | 4 | | NTSIUM6004 | |
| NTSIUM6010 | | Rekayasa Gempa | Earthquake Engineering | 2 | 2 | T | W | | 5 | | NTSIUM6009 | |
| NTSIUM6011 | | Struktur Jembatan | Bridge Structures | 3 | 3 | T | W | | 4 | | NTSIUM6007 NTSIUM6008 | |
|  | **IPTEKS Penunjang** | | | | | | | | | | | |
|  | **Manajemen Konstruksi** | | | | | | | | | | | |
| NTSIUM6012 | | Manajemen dan Estimasi Biaya Konstruksi | Construction Management | 3 | 3 | T | W | | 3 | |  | |
| NTSIUM6013 | | Metode Pelaksanaan Konstruksi | Construction Methods | 2 | 2 | T | W | | 3 | | NTSIUM6012 | |
|  | **Mekanika Tanah** | | | | | | | | | | | |
| NTSIUM6014 | | Mekanika Tanah | Soil Mechanics | 2 | 2 | T | W | | 2 | |  | |
| NTSIUM6015 | | Pengujian Mekanika Tanah | Soil Mechanics Testing | 2 | 6 | P | W | | 2 | | NTSIUM6014 | |
| NTSIUM6016 | | Teknik Pondasi | Foundation Engineering | 3 | 3 | T | W | | 4 | | NTSIUM6015 | |
|  | **Keairan, Lingkungan, dan Pemetaan** | | | | | | | | | | | |
| NTSIUM6017 | | Hidrologi | Hydrology | 2 | 2 | T | W | | 1 | |  | |
| NTSIUM6018 | | Mekanika Fluida | Fluids Mechanics | 2 | 2 | T | W | | 2 | | NTSIUM6017 | |
| NTSIUM6019 | | Hidrolika  (Praktikum 1sks) | Hydraulics | 2 | 5 | T&P | W | | 3 | | NTSIUM6018 | |
| NTSIUM6020 | | Teknik Lingkungan | Environmental Engineering | 2 | 2 | T | W | 4 | |  | |
| NTSIUM6021 | | Ilmu Ukur Tanah (Praktikum 1sks) | Land Surveying | 2 | 4 | T&P | W | 2 | |  | |
|  | **Transportasi** | | | | | | | | | | | |
| NTSIUM6022 | | Geometrik Jalan Raya | Geometric Design of Highway | 2 | 2 | T | W | 4 | | NTSIUM6021 | |
| NTSIUM6023 | | Teori dan Praktikum Perkerasan Jalan | Theory and Practice of Highway Pavement | 3 | 6 | T&P | W | 3 | |  | |
| NTSIUM6024 | | Teknik Lalu Lintas | Traffic Engineering | 2 | 2 | T | W | 3 | | NTSIUM6023 | |
|  | **Arsitektur** | | | | | | | | | | | |
| NTSIUM6025 | | Menggambar Teknik & CAD | Engineering Drawing and Computer Aided Design | 3 | 6 | T&P | W | 1 | |  | |
|  | **Penulisan Karya Ilmiah** | | | | | | | | | | | |
| NTSIUM6026 | | Matematika Rekayasa I | Engineering Mathematics I | 3 | 3 | T | W | 1 | |  | |
| NTSIUM6027 | | Matematika Rekayasa II | Engineering Mathematics II | 3 | 3 | T | W | 2 | | NTSIUM6026 | |
| NTSIUM6028 | | Bahasa Pemrograman dan Aplikasi Komputer | Computer Programming | 2 | 4 | T | W | 2 | |  | |
| NTSIUM6029 | | Statistika | Statistics | 2 | 2 | T | W | 3 | |  | |
| UKKNUM6090 | | Kuliah Kerja Nyata (KKN) | Community Service Programme | 4 | 12 | P | W | 6 | |  | |
| NTSIUM6030 | | Praktik Kerja Industri (PRAKERIN) | Internship | 4 | 12 | P | W | 6 | |  | |
| NTSIUM6033 | | Skripsi | Undergraduate Thesis | 4 | 12 | P | W | 8 | | FTEKUM6002 | |
|  | **Penciri Program Studi** | | | | | | | | | | | |
| NTSIUM6031 | | Sistem Struktur dan Teknologi Konstruksi Bangunan Tinggi | Highrise Building Structural Systema and Construction Technology | 3 | 3 | T | W | 5 | | NTSIUM6007  NTSIUM6009 | |
| NTSIUM6032 | | Perancangan Struktur Bangunan Gedung Tinggi | Highrise Building Structure Design | 4 | 8 | P | W | 6 | | NTSIUM6031  NTSIUM6010 | |
|  | **Jumlah SKS MKK Program Studi S1 Teknik Sipil** | | | **98** |  |  |  |  | |  | |

**Matakuliah Peminatan dan Pengembangan Diri (MPPD)**

| Sandi | | Nama Mata Kuliah |  | SKS | JS | T/P/L | W/P | Semester Sajian |  |
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|  |
|  | **Inti Keilmuan - Struktur dan Material Konstruksi** | | | | | | | | |
| NTSIUM6034 | | Struktur Baja Canai Dingin | Cold-formed Steel Structures | 2 | 2 | T | P |  |  |
| NTSIUM6035 | | Metode Numerik | Numerical Methods | 2 | 2 | T | P |  |  |
| NTSIUM6036 | | Metode Elemen Hingga | Finite Element Methods | 3 | 3 | T | P |  |  |
| NTSIUM6037 | | Struktur Beton Pratekan | Prestressed Concrete Structures | 3 | 3 | T | P |  |  |
| NTSIUM6038 | | Basement | Basement | 2 | 2 | T | P |  |  |
| NTSIUM6039 | | Building Information Modelling | Building Information Modelling | 3 | 6 | T | P |  |  |
| NTSIUM6040 | | Analisis Struktur Metode Matriks | Structural Analysis with Matrix Method | 2 | 2 | T | P |  |  |
| NTSIUM6041 | | Struktur Kayu | Wood Structures | 2 | 3 | T | P |  |  |
|  | **IPTEKS Penunjang** | | | | | | | | |
|  | **Manajemen Konstruksi** | | | | | | | | |
| NTSIUM6042 | | Manajemen Kualitas Konstruksi | Construction Quality Management | 2 | 2 | T | P |  |  |
| NTSIUM6043 | | Manajemen Alat Berat | Heavy Equipment Management | 2 | 2 | T | P |  |  |
| NTSIUM6044 | | Ekonomi Teknik | Engineering Economics | 2 | 2 | T | P |  |  |
| NTSIUM6045 | | Aspek Hukum Jasa Konstruksi | Legal Aspects in Construction | 2 | 2 | T | P |  |  |
| NTSIUM6046 | | Value Engineering | Value Engineering | 2 | 2 | T | P |  |  |
| NTSIUM6047 | | Perawatan dan Perbaikan Gedung | Building Maintenance and Repair | 2 | 2 | T | P |  |  |
| NTSIUM6048 | | Riset Operasi | Operation Research | 2 | 2 | T | P |  |  |
|  | **Mekanika Tanah** | | | | | | | | |
| NTSIUM6049 | | Perbaikan Tanah dan Stabilitas Lereng | Soil Improvement and Slope Stability | 2 | 2 | T | P |  |  |
| NTSIUM6050 | | Dinding Penahan Tanah | Retaining Walls | 2 | 2 | T | P |  |  |
| NTSIUM6051 | | Reklamasi | Reclamation | 2 | 2 | T | P |  |  |
| NTSIUM6052 | | Geologi Teknik | Geology Engineering | 2 | 2 | T | P |  |  |
|  | **Keairan, Lingkungan, dan Pemetaan** | | | | | | | | |
| NTSIUM6053 | | Pengelolaan Sumber Daya Air | Water Resources Management | 3 | 3 | T | P |  |  |
| NTSIUM6054 | | Drainase Perkotaan |  | 2 | 2 | T | P |  |  |
| NTSIUM6055 | | Sanitasi Lingkungan Perkotaan | Urban Environmental Sanitation | 2 | 2 | T | P |  |  |
| NTSIUM6056 | | Pencemaran Udara | Air Pollution | 2 | 2 | T | P |  |  |
| NTSIUM6057 | | Analisis Mengenai Dampak Lingkungan (AMDAL) | Environmental Impact Assessment | 3 | 3 | T | P |  |  |
| NTSIUM6058 | | Sistem Informasi Geografis | Geographical Information System | 2 | 2 | T | P |  |  |
|  | **Transportasi** | | | | | | | | |
| NTSIUM6059 | | Pemeliharaan Jalan | Highway Maintenance | 2 | 2 | T | P |  |  |
| NTSIUM6060 | | Manajemen Transportasi | Transportation Management | 2 | 2 | T | P |  |  |
| NTSIUM6061 | | Pelabuhan | Harbor Engineering | 2 | 2 | T | P |  |  |
| NTSIUM6062 | | Lapangan Terbang | Airport Engineering | 2 | 2 | T | P |  |  |
|  | **Arsitektur** | | | | | | | | |
| NTSIUM6063 | | Bangunan Ramah Lingkungan | Sustainable Building | 2 | 2 | T | P |  |  |
| NTSIUM6064 | | Teknologi Fasad | Façade Technology | 2 | 2 | T | P |  |  |
| NTSIUM6065 | | Utilitas Bangunan Tinggi | Utility of Highrise Building | 3 | 3 | T | P |  |  |
|  | **Profesi dan Aplikasi Komputer** | | | | | | | | |
| NTSIUM6066 | | Etika Profesi | Professional Ethics | 2 | 2 | T | P |  |  |
| NTSIUM6067 | | Proposal Skripsi | Undergraduate Thesis Proposal | 2 | 2 | T | P |  |  |
| NTSIUM6068 | | Aplikasi Komputer Bidang Teknik Struktur | Computer Application in Structure Engineering | 2 | 4 | T/P | P |  |  |
| NTSIUM6069 | | Aplikasi Komputer Bidang Keairan | Computer Application in Water Engineering | 2 | 4 |  |  |  |  |
| NTSIUM6070 | | Aplikasi Komputer Bidang Transportasi | Computer Application in Transportation Engineering | 2 | 4 |  |  |  |  |
| NTSIUM6071 | | Aplikasi Komputer Bidang Arsitektur | Computer Application in Architecture | 2 | 4 |  |  |  |  |
| NTSIUM6072 | | Aplikasi Komputer Bidang Geoteknik | Computer Application in Geotechnics Engineering | 2 | 4 |  |  |  |  |
| NTSIUM6073 | | Aplikasi Komputer Bidang Manajemen Konstruksi | Computer Application in Construction Management | 2 | 4 |  |  |  |  |
| **Jumlah SKS MPPD Program Studi S1 Teknik Sipil** | | |  | **86** |  |  |  |  |  |
| **Jumlah SKS MPPD yang bisa diambil di Prodi** | | |  | **36** |  |  |  |  |  |
| **TOTAL SKS Program Studi S1 Teknik Sipil** | | |  | **146** |  |  |  |  |  |

## Sebaran Matakuliah

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| SEMESTER I | | |  |  |  | |  | | |  | | |
| No | Sandi | Nama Mata Kuliah | | | SKS | | | JS | | | W/P | | |
| 1. | NTSIUM6026 | Matematika Rekayasa I | | Engineering Mathematics I | 3 | | | 3 | | | W | | |
| 2. | NTSIUM6001 | Mekanika Statis Tentu | | Statically Determinate Mechanics | 3 | | | 3 | | | W | | |
| 3. | NTSIUM6025 | Menggambar Teknik & CAD | | Engineering Drawing and Computer Aided Design | 3 | | | 6 | | | W | | |
| 4. | NTSIUM6017 | Hidrologi | | Hydrology | 2 | | | 2 | | | W | | |
| 5. | UNIVUM6001 | Pendidikan Agama Islam | | Islamic Religion Education \*) | 3 | | | 3 | | | W | | |
| 6. | UNIVUM6002 | Pendidikan Agama Protestan | | Christian Religion Education \*) | 3 | | | 3 | | | W | | |
| 7. | UNIVUM6003 | Pendidikan Agama Katholik | | Catholic Religion Education \*) | 3 | | | 3 | | | W | | |
| 8. | UNIVUM6004 | Pendidikan Agama Hindu | | Hinduism Religion Education | 3 | | | 3 | | | W | | |
| 9. | UNIVUM6005 | Pendidikan Agama Buddha | | Buddhism Religion Education \*) | 3 | | | 3 | | | W | | |
| 10. | UNIVUM6006 | Pendidikan Agama Konghuchu | | Kunghuchu Religion Education \*) | 3 | | | 3 | | | W | | |
| 11. | UNIVUM6014 | Pendidikan Kepercayaan | |  | 3 | | | 3 | | | W | | |
| 12. | NTSIUM6003 | Teknologi Bahan Konstruksi | | Construction Materials Technology | 3 | | | 6 | | | W | | |
| 13. | NTSIUM6002 | Mekanika Bahan | | Mechanics of Materials | 3 | | | 3 | | | W | | |
| Total | | | | | | 20 | | |  | | |  | | |

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| SEMESTER II | |  |  |  | |  |  |
| No | Sandi | Nama Mata Kuliah | | SKS | | JS | W/P |
| 1. | NTSIUM6027 | Matematika Rekayasa II | Engineering Mathematics II | 3 | | 3 | W |
| 2. | NTSIUM6004 | Mekanika Statis Tak Tentu | Statically Indeterminate Mechanics | 3 | | 3 | W |
| 3. | NTSIUM6014 | Mekanika Tanah | Soil Mechanics | 2 | | 2 | W |
| 4. | NTSIUM6028 | Bahasa Pemrograman dan Aplikasi Komputer | Computer Programming | 2 | | 4 | W |
| 5. | NTSIUM6018 | Mekanika Fluida | Fluid Mechanics | 2 | | 2 | W |
| 6. | UNIVUM6007 | Pendidikan Pancasila | Pancasila Education | 2 | | 2 | W |
| 7 | NTSIUM6015 | Pengujian Mekanika Tanah | Soil Mechanics Testing | 2 | | 6 | W |
| 8 | NTSIUM6021 | Ilmu Ukur Tanah (Praktikum 1sks) | Land Surveying | 2 | | 4 | W |
| 10 | FTEKUM6001 | Bahasa Inggris Profesi | English for Professional Purposes | 2 | | 2 | W |
| Total | | | | 20 |  | |  |

\*) dipilih sesuai dengan agama yang dianut

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| SEMESTER III | | |  | |  | |  | |  | |  | |
| No | Sandi | Nama Mata Kuliah | | | | SKS | | JS | | W/P | |
| 1. | NTSIUM6005 | Balok dan Plat Beton Bertulang | | Reinforced Concrete Beams and Plates | | 3 | | 3 | | W | |
| 2. | NTSIUM6006 | Struktur Rangka Baja | | Steel Truss Structures | | 2 | | 2 | | W | |
| 3. | NTSIUM6012 | Manajemen dan Estimasi Biaya Konstruksi | | Construction Management | | 3 | | 3 | | W | |
| 4. | UNIVUM6007 | Pendidikan Bahasa Indonesia | | Bahasa Indonesia | | 2 | | 2 | | W | |
| 5 | NTSIUM6019 | Hidrolika (Praktikum 1sks) | | Hydraulics | | 2 | | 5 | | W | |
| 6 | NTSIUM6013 | Metode Pelaksanaan Konstruksi | | Construction Methods | | 2 | | 2 | | W | |
| 7 | NTSIUM6024 | Teknik Lalu Lintas | | Traffic Engineering | | 2 | | 2 | | W | |
|  | NTSIUM6029 | Statistika | | Statistics | | 2 | | 2 | | W | |
| 9 | NTSIUM6023 | Teori dan Praktikum Perkerasan Jalan | | Theory and Practice of Highway Pavement | | 3 | | 6 | | W | |
|  | Total |  | |  | | 21 | |  | |  | |

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| SEMESTER IV | | |  |  |  |  |  |
| No | Sandi | Nama Mata Kuliah | | | SKS | JS | W/P |
| 1. | NTSIUM6009 | Dinamika Struktur | | Dynamics of Structures | 2 | 2 | W |
| 2. | NTSIUM6007 | Kolom dan Pondasi Beton Bertulang | | Reinforced Concrete Columns and Foundations | 2 | 2 | W |
| 3. | NTSIUM6008 | Struktur Portal Baja | | Steel Frame Structures | 3 | 3 | W |
| 4. | NTSIUM6016 | Teknik Pondasi | | Foundation Engineering | 3 | 3 | W |
| 5. | UNIVUM6008 | Pendidikan Kewarganegaraan | | Civic Education | 2 | 2 | W |
| 6 | NTSIUM6022 | Geometrik Jalan Raya | | Geometric Design of Highway | 2 | 2 | W |
| 7 | NTSIUM6020 | Teknik Lingkungan | | Environmental Engineering | 2 | 2 | W |
| 8 | NTSIUM6011 | Struktur Jembatan | | Bridge Structures | 3 | 3 | W |
| 9 | FTEKUM6004 | Kewirausahaan | | Entrepreneurship | 2 | 2 | W |
| Total | | | |  | 21 |  |  |

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| SEMESTER V | |  | |  |  |  |  |
| No | Sandi | | Nama Mata Kuliah | | SKS | JS | W/P |
| 1. | NTSIUM6010 | | Rekayasa Gempa | Earthquake Engineering | 2 | 2 | W |
| 2. | NTSIUM6031 | | Sistem Struktur dan Teknologi Konstruksi Bangunan Tinggi | Highrise Building Structural Systems and Construction Technology | 3 | 3 | W |
| 3 | FTEKUM6002 | | Metodologi Penelitian | Research Methodology | 2 | 2 | W |
| 4 |  | | Mata Kuliah Pilihan1 |  | 15 |  | P |
| Total | | | |  | 22 |  |  |

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| SEMESTER VI | |  |  |  |  |  |
| No | Sandi | Nama Mata Kuliah | | SKS | JS | W/P |
| 1. | NTSIUM6032 | Perancangan Struktur Bangunan Gedung Tinggi | Highrise Building Structure Design | 4 | 8 | W |
| 2. | UNIVUM6010 | Manajemen Inovasi | Innovation Management | 3 | 3 | W |
| 3. | UKKNUM6090 | Kuliah Kerja Nyata | Community Service Programme | 4 | 12 | W |
| 4 | NTSIUM6030 | Praktik Kerja Industri | Internship | 4 | 12 | W |
| 6. |  | Mata Kuliah Pilihan |  | 5 |  | P |
| Total | | |  | 20 |  |  |

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| SEMESTER VII | | |  |  |  |  |  |
| No | Sandi | Nama Mata Kuliah | | | SKS | JS | W/P |
| 1. | FTEKUM6003 | Kesehatan dan Keselamatan Kerja | | Occupational Health and Safety | 2 | 2 | W |
| 1. |  | Mata Kuliah Pilihan | |  | 16 |  | P |
| Total | | | |  | 18 |  |  |

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| SEMESTER VIII | | |  | |  | | |  | | |  | | |  | | |
| No | Sandi | Nama Mata Kuliah | | | | | SKS | | | JS | | | W/P | | |
| 1. | NTSIUM6033 | Skripsi | | Undergraduate Thesis | | 4 | | | 12 | | | W | | |