**MATA KULIAH WAJIB (SEMESTER I-VIII) KURIKULUM KKNI 2018**

**SEMESTER I**

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| **Kode** | **Semester 1** | **SKS** |
| UNI 1101-1105 | Pend. Agama | 2 |
| UNI 1106 | Pancasila | 2 |
| UNI 1107 | B. Inggris | 2 |
| RTI 1101 | Kalkulus I | 3 |
| RTI 1102 | Fisika Dasar I | 2 |
| RTI 1103 | Pengantar Teknik Industri | 3 |
| RTI 1104 | Kimia Industri | 2 |
| RTI 1105 | Elektronika Industri | 2 |
| **Total** | | **18** |

**SEMESTER II**

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| **Kode** | **Semester 2** | **SKS** |
| RTI 1206 | Kalkulus II | 3 |
| RTI 1207 | Fisika Dasar II | 3 |
| RTI 1208 | Pemrograman Komputer | 3 |
| RTI 1209 | Sistem Lingkungan Industri | 2 |
| RTI 1210 | Statistik Industri I | 3 |
| RTI 1211 | Ilmu Ekonomi | 2 |
| RTI 1212 | Menggambar Teknik | 2 |
| RTI 1213 | Pengetahuan Bahan | 2 |
| **Total** | | **20** | |

**SEMESTER III**

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| **Kode** | **Semester 3** | **SKS** | |
| RTI 2114 | Aljabar Linier | 3 | |
| RTI 2115 | Mekanika Teknik | 2 | |
| RTI 2116 | Rekayasa Keselamatan Kerja | 2 | |
| RTI 2117 | Ergonomi | 3 | |
| RTI 2118 | Perancangan Pengendalian Produksi I | 2 | |
| RTI 2119 | Statistika industri II | 3 | |
| RTI 2120 | Riset Operasi I | 3 | |
| RTI 2121 | Proses Manufaktur | 2 | |
| **Total** | | **20** |

**SEMESTER IV**

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| **Kode** | **Semester 4** | **SKS** | |
| RTI 2222 | Matematika Optimasi | 3 | |
| RTI 2223 | Otomasi Produksi | 2 | |
| RTI 2224 | Perancangan Sistem Kerja | 2 | |
| RTI 2225 | Perancangan dan Pengembangan Produk | 3 | |
| RTI 2226 | Perencanaan dan Pengendalian Produksi II | 2 | |
| RTI 2227 | Permodelan Sistem | 2 | |
| RTI 2228 | Riset Operasi II | 3 | |
| RTI 2229 | PTIT I | 2 | |
| **Total** | | **19** |

**SEMESTER V**

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| **Kode** | **Semester 5** | **SKS** |
| RTI 3130 | Ekonomi Teknik | 2 |
| RTI 3131 | Analisis Biaya | 2 |
| RTI 3132 | Manajemen Teknologi dan Produktivitas | 3 |
| RTI 3133 | Perancangan Tata Letak Fasilitas | 3 |
| RTI 3134 | Simulasi Komputer | 3 |
| RTI 3135 | Metodologi Penelitian dan Komunikasi Ilmiah | 3 |
| RTI 3136 | Organisasi Manajemen Perusahaan Industri | 2 |
| RTI 3137 | PTIT II | 2 |
| **Total** | | **20** |

**SEMESTER VI**

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| **Kode** | **Semester 6** | **SKS** |
| RTI 3238 | Kewirausahaan Berbasis Teknologi | 2 |
| RTI 3239 | Psikologi Industri | 2 |
| RTI 3240 | Rekayasa Produktivitas | 3 |
| RTI 3241 | Perancangan Informasi & *Digital Marketing* | 3 |
| RTI 3242 | Manajemen Energi | 2 |
| RTI 32.. | Kuliah Pilihan 1 | 3 |
| RTI 32.. | Kuliah Pilihan 2 | 3 |
| RTI 3243 | PTIT III | 2 |
| **Total** | | **20** |

**SEMESTER VII**

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| **Kode** | **Semester 7** | **SKS** |
| RTI 4144 | Analisa Perancangan Perusahaan | 3 |
| RTI 4145 | Kerja Praktek | 2 |
| RTI 4146 | Manajemen *Human Capital* | 3 |
| RTI 4147 | Pengendalian dan Penjaminan Mutu | 3 |
| RTI 4148 | Manajemen Rantai Pasok | 2 |
| RTI 4149 | Manajemen Proyek | 2 |
| RTI 41.. | Kuliah Pilihan 3 | 3 |
| UNI 4108 | Pendidikan Kewarganegaraan | 2 |
| **Total** | | **20** | |

**SEMESTER VIII**

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| **Kode** | **Semester 8** | **SKS** |
| UNI 3246 | Kuliah Kerja Nyata | 3 |
| TKI 4250 | Tugas Akhir | 4 |
| **Total** | | **7** |

**2. MATA KULIAH PILIHAN I & II**

**SEMESTER VI**

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| **BIDANG REKAYASA SISTEM MANUFAKTUR** | | |
| **KODE** | **MATA KULIAH** | **SKS** |
| RTI 3251 | Produktivitas Hijau / *Green Productivity* | 3 |
| RTI 3252 | Rantai Pasok Hijau / *Green Supply Chain* | 3 |
| RTI 3253 | Rekayasa Serempak / *Concurrent Engineering* | 3 |
| RTI 3254 | Tata Letak Pabrik Lanjut / *Advanced Layout* | 3 |
| RTI 3255 | Energi Terbarukan / *Renewal Energy* | 3 |

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| **BIDANG REKAYASA FAKTOR MANUSIA** | | |
| **KODE** | **MATA KULIAH** | **SKS** |
| RTI 3256 | Ergonomi Lingkungan / *Enviromental Ergonomic* | 3 |
| RTI 3257 | Ergonomi Makro / *Macro Ergonomic* | 3 |
| RTI 3258 | Ergonomi Hijau / *Green Ergonomic* | 3 |
| RTI 3259 | Sistem Kendali Manusia Mesin / *Man Machine Control* | 3 |
| RTI 3260 | Desain Lingkungan Kerja /  *Work Environmental Design* | 3 |

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| **BIDANG MANAJEMEN SAINS/*OPERATION RESEARCH*** | | |
| **KODE** | **MATA KULIAH** | **SKS** |
| RTI 3261 | Data *Mining* | 3 |
| RTI 3262 | Manajemen Resiko / *Risk Management* | 3 |
| RTI 3263 | Manajemen Strategis / *Strategic Management* | 3 |
| RTI 3264 | Komputasi Lunak / *Soft Computing* | 3 |
| RTI 3265 | Intelijen Bisnis / *Business Intelligent* | 3 |

**3. MATA KULIAH PILIHAN I & II**

**SEMESTER VII**

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| **BIDANG REKAYASA SISTEM MANUFAKTUR** | | |
| **KODE** | **MATA KULIAH** | **SKS** |
| RTI 4166 | Perencanaan Sumber Daya Perusahaan / *Enterprises Resources Planning* | 3 |
| RTI 4167 | Rekayasa Nilai / *Value Engineering* | 3 |
| RTI 4168 | Penjadwalan Mesin / *Machine Schedulling* | 3 |
| RTI 4169 | Perancangan Manufaktur Rakitan / *Design Manufacturing Assembly* | 3 |

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| **BIDANG REKAYASA FAKTOR MANUSIA** | | |
| **KODE** | **MATA KULIAH** | **SKS** |
| RTI 4170 | Perancangan, Pengukuran dan Pembakuan Sistem Kerja / *Advanced Work System Design* | 3 |
| RTI 4171 | Biomekanika Kerja / *Occupational Biomechanic* | 3 |
| RTI 4172 | Ergonomi Kognitif / *Cognitive Ergonomic* | 3 |
| RTI 4173 | Teknik Pengendalian Faktor Manusia / *Human Control Engineering* | 3 |

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| **BIDANG MANAJEMEN SAINS/*OPERATION RESEARCH*** | | |
| **KODE** | **MATA KULIAH** | **SKS** |
| RTI 4174 | Sistem Pendukung Keputusan / *Decision Support System* | 3 |
| RTI 4175 | Manajemen Keuangan / *Financial Management* | 3 |
| RTI 4176 | Manajemen Perawatan / *Maintenance Management* | 3 |
| RTI 4177 | Manajemen Operasi / *Operational Management* | 3 |