|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **DEPARTMENT MECHANICAL AND AERONAUTICAL ENGINEERING 2022** | | | | | |
| **1st YEAR** | | | | | |
| **1st SEMESTER** | | | **2nd SEMESTER** | | |
| MGC 110 | Graphical Communication | Mr Riaan Meeser, Mr Tlou Mokobodi,  Mr Isaac Setshedi | NMC 123 | Materials Science | Mr Vinod Kurup |
| WTW 158 | Calculus | Prof AF Harding | WTW 164 | Calculus & Algebra | Dr Quay van der Hoff |
| FSK 116 | Physics | Dr Jackie Nel | HAS 120 | Humanities and social sciences | Mr George Noffke |
| HAS 110 | Humanities and social sciences | Mr Jimmy Pieterse | CHM 172 | General Chemistry | Mrs Anita Botha |
| EBN 111 | Electricity and Electronics | Mr Daniel Ramotsoela & Dr Xianming Ye | SWK 122 | Mechanics | Dr Anneke Roux |
|  |  |  |  |  |  |
|  |  |  | ***WWP 121*** | ***Workshop Practice*** | ***Enquiries: Student Admin*** |
| **2nd YEAR** | | | | | |
| **1st SEMESTER** | | | **2nd SEMESTER** | | |
| WTW 258 | Calculus | Dr Desiree Moubandjo | WTW 238 | Mathematics | Ms Leoni Mostert |
| WTW 256 | Differential Equations | Ms Leoni Mostert | WTW 263 | Numerical Methods | Dr Rao Appadu |
| MSD 210 | Dynamics | Dr Cor-Jacques Kat, Dr Helen Inglis, | BES 220 | Engineering Statistics | Mrs Tsholofelo Malatji |
| MOW 217 | Manufacturing and Design | Dr Lukas du Plessis | MOW 227 | Structural Design | Prof Schalk Kok |
| MPR 213 | Programming and information technology | Mr Isaac Setshedi, Ms Dineo Ramatlo, Dr Abrie Oberholster, Dr M Mahdavi | MTX 221 | Thermodynamics | Prof Jaco Dirker, Dr Bradley Bock, Mr Tlou Mokobodi |
| MJJ 210 | Professional and Technical Communication | Dr Bradley Bock |  |  |  |
| JCP 203 | Community-based project | Dr Lelanie Smith |  |  |  |
| **3rd YEAR** | | | | | |
| **1st SEMESTER** | | | **2nd SEMESTER** | | |
| MOW 312 | Machine Design | Dr Joachim Huyssen | MOW 323 | Simulation-based design | Dr Stephan Schimdt |
| MSY 310 | Structural Mechanics | Dr Helen Inglis | MVR 320 | Vibrations and Noise | Prof Stephan Heyns, Dr Cor-Jacques Kat |
| MTV 310 | Fluid Mechanics | Prof Ken Craig | EIR 221 | Electrical Engineering | Dr Lijun Zhang & Dr Filip Paluncic |
| MTX 311 | Thermodynamics | Prof Willem le Roux | MIA 320 | Engineering activity and group work | Dr Mehdi Mehrabi |
| BSS 310 | Engineering Management | Dr Michael Ayomoh, Dr Nadia Viljoen Mrs Saija Bezuidenhout | MKM 321 | Continuum Mechanics | Prof Nico Wilke |
| ***MPY 315*** | ***Practical Training*** | Dr Abrie Oberholser |  |  |  |
| **4th YEAR** | | | | | |
| **1st SEMESTER** | | | **2nd SEMESTER** | | |
| MKM 411 | Computational fluid dynamics | Prof Mohsen Sharifpur, Mr M Mahdavi | MRN 422 | Research Project | Prof Schalk Kok |
| MTV 410 | Heat Transfer | Dr Marlize Everts | MBB 410 | Mechatronics and Control | Dr Abrie Oberholster |
| MOX 410 | Design Project | Dr Lukas Du Plessis | MTV 420 | Thermal and fluid Machines | Prof Jaco Dirker, Dr Mostafa Mahdavi |
| IPI 410 | Engineering professionalism | Dr George Thopil |  | | |
| MRN 412 | Research Project | Prof Schalk Kok |  |  |  |
| ***MPY 415*** | ***Practical training*** | Dr Abrie Oberholster |  |  |  |
|  |  |  |  |  |  |
|  | **SERVICE MODULES** |  |  |  |  |
| MVS 311 | Manufacturing Systems | Mr Riaan Meeser |  |  |  |
| NTV 310 | Metallurgical Fluid Mechanics | Prof Ken Craig |  |  |  |
|  |  |  |  | **ELECTIVES** |  |
|  |  |  | MVE 420 | Vehicle Engineering | Prof Schalk Els |
|  |  |  | MLV 420 | Aeronautics | Dr Barbara Huyssen |
|  |  |  | MII 420 | Maintenance Engineering | Prof Johann Wannenburg |
|  |  |  | MKI 420 | Nuclear Engineering | Prof Johan Slabber |
|  |  |  | MHM 420 | Heat and mass transfer | Dr Mehdi Mehrabi |
|  |  |  | MOO 420 | Optimum design | Prof Nico Wilke |
|  | | | | | |