

7. Mechanical Engineering

YEAR 1

Semester 1		Semester 2	
CHEM181 Chemistry for Engineers 1A or CHEM163 Chemistry & Society 1	(8) (8)	CHEM191 Chemistry for Engineers 1B or CHEM173 Chemistry & Society 2	(8) (8)
ENCH1TC Tech. Comm. for Engineers	(8)	ENME1EM Intro. to Engineering Materials or ENAG1MT Intro. to Engineering Materials	(8) (8)
ENME1DR Engineering Drawing	(8)	ENME1ED Mechanical Engineering Design or ENAG1DE Engineering Design	(8) (8)
MATH131 Mathematics 1A (Eng)	(16)	MATH141 Mathematics 1B (Eng)	(16)
MATH132 Applied Mathematics 1A (Eng)	(16)	MATH142 Applied Mathematics 1B (Eng)	(16)
PHYS151 Engineering Physics 1A or PHYS110 Mech., Optics & Thermal Phys	(16) (16)	PHYS152 Engineering Physics 1B or PHYS120 Electromag, Waves & Mod. Phys	(16) (16)
		ENCV1EP Engineering Practice Workshop	(DP)

YEAR 2

Semester 1		Semester 2	
ENEL2EL Electrical Engineering	(16)	ENEL2EC Electronic Engineering	(8)
ENME2CF Computer Fundamentals	(8)	ENEL2EN Environmental Engineering	(8)
ENME2DY Dynamics	(8)	ENME2DM Design Methods	(16)
ENME2FM Fluid Mechanics 1	(8)	ENME2MM Measurements & Exptl Methods	(8)
ENME2PM Funds of Physical Metallurgy	(8)	ENME2SM Strength of Materials 1	(16)
ENME2TH Thermodynamics 1	(8)	MATH248 Mathematics 2B (Eng)	(16)
MATH238 Mathematics 2A (Eng)	(16)	ENME2WS Workshop Course	(DP)

YEAR 3

Semester 1		Semester 2	
ENCH4ML Eng. Mgmt & Labour Relations	(8)	ENEL3CS Control Systems 1	(8)
ENEL3MA Electrical Machines 1	(8)	ENME3FM Fluid Mechanics 2	(16)
ENEL3SS Systems and Simulation	(8)	ENME3HM Heat & Mass Transfer 1	(16)
ENME3DM Design of Machine Elements	(16)	ENME3MT Manufacturing Technology	(8)
ENME3ST Strength of Materials 2	(16)	ENME3SM Selection of Engineering Materials	(8)
MATH354 Mathematics 3 (Eng)	(8)	ENME3TH Thermodynamics 2	(8)
STAT370 Engineering Statistics	(8)	ENME3TM Theory of Machines	(8)

YEAR 4

Semester 1		Semester 2	
ENME4AM Advanced Manufacturing Systems	(8)	ENEL4EE Engineering Entrepreneurship	(8)
ENME4CM Eng. Computational Methods	(8)	ENME4DP Design and Research Project 2	(24)

ENME4FP Design of Fluid Power Systems (8)	ENME4MT Mechatronic Engineering (8)
ENME4PD Design and Research Project 1 (16)	ENME4MV Mechanical Vibrations (8)
ENME4TD Thermodynamics 3 (8)	ENME4VW Vacation Work (DP)
<i>Elective modules (see note 1)</i>	<i>Elective modules (see note 1)</i>
ENEL4EB Engineering Business (8)	ENME4ED Mechanical Engineering Design (8)
ENME4DM Design & Analysis of Mnfing Proc. (8)	ENME4EM Energy Management (8)
ENME4ES Alternative Energy Systems (8)	ENME4FF Fracture & Fatigue of Eng. Materials (8)
ENME4MC Mechanics of Composite Materials (8)	ENME4MN Selected Topics in Mech. Eng. 2 (8)
ENME4ME Selected Topics in Mech. Eng 1 (8)	MATH360 Numerical Methods (8)
ZULUN101 Basic isiZulu Language Studies A or Free elective modules (see note 2)	Free elective modules (see note 2)

Notes:

1. A student shall take a total of 48 elective credits to be selected following consultation with, and approval by the Dean and Head of School.
2. Free elective modules are modules offered outside the College. Each student must complete a minimum of 24 credits, and a maximum of 32 credits of free elective modules. Any selected module(s) shall require the approval of the Dean and Head of School, and the Dean and Head of the School offering the module.
3. The remaining credits, to total 48 credits, should be selected from modules in Mechanical Engineering.