



APPROVED

Awards	
Honours Bachelor Degree	
Mode of Delivery:	Full Time, Part Time, ACCS
No. of Semesters :	8
NFQ Level:	8
Programme Credits:	240
Language of Instruction:	English
Department:	Aerospace, Mechanical & Electronic Engineering

Semester Schedules

Stage 1 / 60 ECTS / Semester 1

Elective Regulation

All subjects are mandatory. Modules may require that students participate in class work, practical work & project work per assessment criteria. A minimum of 40% may be required in each of these elements to satisfy the module learning outcomes.

Mandatory	
Module Code	Module Title
DSGN C1601	Computer Aided Drafting
TECH C1602	Technical Communications
MATH C1605	Engineering Mathematics 1
MECH C1613	Mechatronics 1
MECH C1605	Static Mechanics

Stage 1 / 60 ECTS / Semester 2

Elective Regulation

All subjects are mandatory. Modules may require that students participate in class work, practical work & project work per assessment criteria. A minimum of 40% may be required in each of these elements to satisfy the module learning outcomes.

Mandatory	
Module Code	Module Title
MATH C1608	Engineering Mathematics 2
MECH C1615	Mechatronics 2
PHYS C1601	Dynamic Mechanics
MECH C1617	Fluid Mechanics 1
PRAC C1602	Workshop Practices

Stage 2 / 60 ECTS / Semester 1

Elective Regulation

Students may EXIT at this stage of the programme with a Higher Certificate in Engineering in Mechanical Engineering (Embedded Exit Award), provided they have achieved the required Level 6 learning outcomes. Academic regulations apply.

Mandatory	
Module Code	Module Title
MATH C2607	Engineering Mathematics 3
AUTO H2003	Mechatronics 3
MECH H2003	Statics 2
PHYS C2601	Dynamics 2
MANU C2F02	Manufacturing and CAD

Stage 2 / 60 ECTS / Semester 2

Elective Regulation

Students may EXIT at this stage of the programme with a Higher Certificate in Engineering in Mechanical Engineering (Embedded Exit Award), provided they have achieved the required Level 6 learning outcomes. Academic regulations apply.

Mandatory	
Module Code	Module Title
MATH C2608	Engineering Mathematics 4
AUTO H2004	Mechatronics 4
ENGR C2F04	Materials Science in Engineering
PHYS H2004	Dynamics 3
ENGY H2004	Thermodynamics 1

Stage 3 / 60 ECTS / Semester 1

Mandatory	
Module Code	Module Title
MATH C3603	Engineering Mathematics 5
MECH H3005	Mechanics of Materials
AUTO H3005	Mechatronics 5
DSGN H3601	Advanced Manufacturing
ENGY H3005	Fluid Mechanics 2

Stage 3 / 60 ECTS / Semester 2

Elective Regulation

Learners will complete Work Placement as part of this Level 8 programme. In exceptional circumstances, and only with the formal approval of the Programme Board, learners may be enrolled on the other elective modules as a contingency for not being in a position to take the Work Placement elective module. Students may apply to EXIT after this stage of the programme with a Bachelor of Engineering/Science in Mechanical Engineering (Embedded Exit Award), provided they have achieved the required Level 7 learning outcomes and have accumulated 180 credits. Academic regulations apply.

Mandatory	
Module Code	Module Title
WKPL C3603	Work Placement
INDL C3604	Industrial Studies

Elective	
Module Code	Module Title
PROJ C3F01	Development Project (Engineering)
AGRI C3F03	Process Instrumentation
SYST C2609	Introduction to Systems and Control
COMP C3F01	Advanced PLCs

Stage 4 / 60 ECTS / Semester 1

Elective Regulation
Students are expected to attend laboratory/workshop Project for 4 hours minimum duration.

Mandatory	
Module Code	Module Title
PROJ C4604	Research Project (Engineering) (Part 1 of 2)
DSGN H4601	Advanced Simulation
ENGR C4F01	Materials Engineering
PHYS H4007	Control System Design
ENGY H4007	Thermodynamics 2

Stage 4 / 60 ECTS / Semester 2

Elective Regulation
Students are expected to attend laboratory/workshop Project for 4 hours minimum duration.

Mandatory	
Module Code	Module Title
ENGY C4F01	Sustainable Energy
QUAL H4601	Quality in Manufacturing
STUD C4601	Professional Studies
ANAL C4F01	Dynamics Vibration Control
PROJ C4604	Research Project (Engineering) (Part 2 of 2)