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)