Cambridge Technical College

ACADEMIC BACHELOR OF MECHANICAL ENGINEERING

The Bachelor of Engineering (Mechanical Engineering will provide you with the skills to become a professional and highly employable mechanical engineer, within a national and international context. In the first two years of this internationally accredited degree, you'll learn the fundamentals of engineering sciences, mathematics, engineering design and engineering professional practice. As you progress, you'll customise your degree by focusing your studies in the general field of mechanical engineering or other areas such as manufacturing, automotive, business, mathematics or computing. You'll have the opportunity to design creative solutions through inspiring and sustainable design-and-build projects, as well as taking part in the Engineers Without Borders.

Challenge Mechanical engineers are needed in a wide range of industries. For example, in design and manufacturing companies, but also in engineering and consultancy firms. Other sectors include sustainable energy, medical product development and process automation. They design and build production machinery, transport systems and vehicles such as cars and motorcycles

Cambridge Technical College

Program	Bachelor of Mechanical Engineering
Duration	4 Academic Years
Credit Hours	132 Credits

Program Syllabus	
Subject	CREDITS
ENGLISH LANGUAGE (101)	3
CALCULUS I	3
PHYSICS I	3
CHEMISTRY	3
INTRODUCTION TO MECHANICAL ENGINEERING	3
COMPUTER SKILLS	3
ENGLISH LANGUAGE (102)	3
CALCULUS II	3
PHYSICS II	3
ENGINEERING MATHEMATICS	3
MECHANICS OF MATERIALS	3
DYNAMICS	3
THERMODYNAMICS I	3
ENGINEERING DRAWING	3
FLUID MECHANICS	3
HEAT TRANSFER	3
MACHINE DESIGN I	3
MECHANICAL VIBRATIONS	3
MANUFACTURING PROCESSES	3
MACHINE DESIGN II	3
CONTROL SYSTEMS	3
THERMODYNAMICS II	3
ROBOTICS AND AUTOMATION	3

AUTOMOTIVE ENGINEERING	3
COMPUTATIONAL FLUID DYNAMICS (CFD)	3
FINITE ELEMENT ANALYSIS (FEA)	3
AUTOMOTIVE ENGINEERING	3
ADVANCED THERMODYNAMICS	3

HVAC SYSTEM DESIGN	3
NANOTECHNOLOGY	3
MATERIALS ENGINEERING	3
MECHATRONICS	3
3D PRINTING AND RAPID PROTOTYPING	3
SUSTAINABLE ENGINEERING	3

MICROFLUIDICS	3
PROPULSION SYSTEMS	3
OPTICAL INSTRUMENTATION	3
THERMAL SYSTEM DESIGN	3
HYDRAULIC AND PNEUMATIC SYSTEMS	3

GRADUATION PROJECT	15