

## COURSE DETAILS

A separate sheet should be completed for each course.

Course title	Bachelor of Engineering Program in Mechatronics Engineering
Entry qualifications	<ol style="list-style-type: none"> <li>1. Must have graduated or</li> <li>2. To receive graduate status of their high school in Mathematics-Science or English-Mathematics program, successfully completed grade 12 or</li> <li>3. Vocational Certificate Graduates</li> <li>4. High Vocational Certificate Graduates</li> </ol>
Maximum number in class	30 people
Average class contact hours per week	15 – 21 hours per week
Examining body	RMUTT
Academic level	Bachelor of Engineering (Mechatronics Engineering)
Certificate awarded, and by whom	Ministry of Education
Duration of course	4 years
Teacher/Course Leader responsible for the course	Asst. Prof. Dr. Dechrit Maneetham
Brief outline of the course content and its delivery	<p>Students must complete at least 143 credits of the curriculum</p> <p><b>A. General Education Courses 36 credits</b></p> <p><b>B. Specialized Courses 131 credits</b></p> <p>Core Courses</p> <ul style="list-style-type: none"> <li>- Calculus for Engineers 1</li> <li>- Calculus for Engineers 2</li> <li>- Chemistry for Engineers</li> <li>- Chemistry Laboratory for Engineers</li> <li>- Physics for Engineers 1</li> </ul>

- Physics Laboratory for Engineers 1
- Physics for Engineers 2
- Physics Laboratory for Engineers 2

#### Basic Engineering Courses

- Computer Programming
- Digital Circuits and Logic Design
- Engineering Mechanics
- Engineering Drawing
- Manufacturing Process
- Engineering Materials
- Basic Engineering Practical
- Mechatronics Engineering Laboratory
- Fundamental of Electrical Engineering
- Microprocessor and Microcontroller
- Electronic Devices and Circuit Design

#### Major Required Courses

- Pneumatics and Hydraulics
- Kinematics and Dynamics of Robotics
- Sensors and Transducers
- Microcontroller and Mechatronic Applications
- Automation Control System
- Computer Aided Design and Applications
- Control System Theory
- Electrical Machine in Automatic System
- Industrial Robotics and Machine Vision
- Advance Robotics Control System
- Power Electronics

#### **C. Free Elective Courses 6 credits**