



International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 1 of 7
		Rev: 01
		Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Mechanical Engineering CPE Typical Modules

Required Modules for all CPE Level I

- 1. Fundamentals of Solid and Fluid Mechanics**
- 2. Fundamentals of Thermodynamics Heat and Mass Transfer**
- 3. Fundamentals of Engineering Materials and their Strength**
- 4. Fundamentals of Physics and Electromagnetism**
- 5. Fundamentals of Inherently Safer Equipment Design**
- 6. Professional Engineering Ethics Part I**

International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 2 of 7
		Rev: 01
		Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Chemical Engineering Level II

Study and understand the three (3) required and four (4) of the other chosen Engineering Training Modules


Three Required Modules

1. Piping Fluid Flow Hydraulics Line Sizing and Material Selection
2. Project Management
3. Statistical Process Control

Four Modules of Your Choice

1. Introduction to Mechanical Engineering (Recommended Selection)
2. Pump Hydraulics Line Sizing and Selection (Recommended Selection)
3. Piping Safety Relief Valve Sizing and Material Selection (Recommended Selection)
4. Corrosion Theory and Control (Recommended Selection)

Special Project based on your selection of modules

International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 3 of 7
		Rev: 01
		Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Chemical Engineering Level III

Study and understand the three (3) required and four (4) of the other chosen Engineering Training Modules


Three Required Modules

- 1. Production Control Engineering**
- 2. Professional Engineering Ethics Part II**
- 3. Professional Reports and Presentations**

Four Modules of Your Choice

- 1. Tribology Theory and Application (Recommended Selection)**
- 2. Heat Exchanger Sizing and Selection (Recommended Selection)**
- 3. Metallurgical Theory and Applications (Recommended Selection)**
- 4. Machine Design Theory and Applications (Recommended Selection)**

One Hour Oral Exam by Board Members (Four 15 minute Sessions)

International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 4 of 7
		Rev: 01
		Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Engineering Training Modules Choices

Introduction to Chemical Engineering

Introduction to Civil Engineering

Introduction to Mechanical Engineering

Introduction to Information Technology

Introduction to Electrical Engineering

Introduction to Environmental Management

Supply Chain Management

Human Factors and Ergonomics Engineering

Facility Management


Waste Water Treatment Theory and Application

Solid Waste Management Theory and Application

Water Supply and Treatment Theory and Application

Environmental Impact Assessment and Mitigation theory and application

Air Pollution Management theory and application

International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 5 of 7
		Rev: 01 Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Tribology Theory and Application

HVAC Theory and Application

Piping Fluid Flow Measurement Sizing and Material Selection

General Instrumentation Sizing and Material Selection

Instrumentation Control Valve Sizing and Material Selection

Pump Hydraulics Line Sizing and Selection

Heat Exchanger Sizing and Selection

Compressor Sizing and Selection

Distillation Column Sizing and Selection

Corrosion Theory and Control

Separator Vessels Sizing and Selection

Boilers Sizing and Selection


Furnace Sizing and Selection

Flare System Sizing and Selection

Storage Tank Systems Sizing and Selection

Reactor Systems Sizing and Selection

Cooling Tower Systems Sizing and Selection

International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 6 of 7
		Rev: 01
		Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Gas Drying Systems Sizing and Selection

Gas Sweetening Systems Sizing and Selection

Refrigeration Systems Sizing and Selection

Geotechnical Theory and Application

Hydrology Theory and Application

Piping Safety Relief Valve Sizing and Material Selection

Electrical Theory and Application

Electrical Circuits and Application

Electrical Power Supply and Regulation

Process Control Systems Sizing and Selection

Safety in Over-Pressure Relieving Systems

Separator Vessels Sizing and Selection


Bio molecular Engineering

Metallurgical Theory and Applications

Machine Design Theory and Applications

Site Surveys, soil investigation and layout

Foundations, concreting and reinforcement

International Association Of Certified Practicing Engineers	 www.iacpe.com Knowledge, Certification, Networking	Page : 7 of 7
		Rev: 01
		Rev 01- May 2016
IACPE No 19, Jalan Bilal Mahmood 80100 Johor Bahru Malaysia	Typical Modules Track for Mechanical Engineering CPE	

Civil Structural Design and Mechanics

Transportation Engineering Planning and Design

Air Pollution Management theory and application

Environmental Impact Assessment and Mitigation theory and application

Water Supply and Treatment Theory and Application