Cawangan Pulau Pinang Kampus Permatang Pauh

## PROGRAMME OUTCOME (PO) **BACHELOR OF MANUFACTURING** ENGINEERING TECHNOLOGY WITH HONOURS (CEEM243)

## **PO1**

Knowledge: Apply knowledge of mathematics, science, engineering fundamentals and an engineering specialisation to defined and applied engineering procedures, processes, systems or methodologies; (SK1 to SK4)

**PO2** 

Problem analysis: Identify, formulate, research literature and analyse broadly-defined engineering problems reaching substantiated conclusions using analytical tools appropriate to their discipline or area of specialisation; (SK1 to SK4)

Design/ development of solutions: Design solutions for broadly-defined engineering technology

with appropriate consideration for public health and safety, cultural, societal, and environmental

problems and contribute to the design of systems, components or processes to meet specified needs

**PO**3

P04

**PO**5

**PO6** 

**PO7** 

Investigation: Conduct investigations of broadly-defined problems; locate, search and select relevant data from codes, data bases and literature, design and conduct experiments to provide valid conclusions; (SK8)

Modern Tool Usage: Select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling, to broadly-defined engineering problems, with an understanding of the limitations; (SK6)

The Engineer and Society: Demonstrate understanding of the societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to engineering technology practice and solutions to broadly-defined engineering problems; (SK7)

Environment and Sustainability: Understand the impact of engineering technology solutions of broadly-defined engineering problems in societal and environmental context and demonstrate knowledge of and need for sustainable development; (SK7)

Ethics: Understand and commit to professional ethics and responsibilities and norms of engineering technology practice; (SK7)

Individual and Team Work: Function effectively as an individual, and as a member or leader in



P(0)

**PO10** 



**PO12** 

community and with society at large, by being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

diverse technical teams.

considerations; (SK5)

Project Management and Finance: Demonstrate knowledge and understanding of engineering management principles and apply these to one's own work, as a member and leader in a team and to manage projects in multidisciplinary environments.

Communications: Communicate effectively on broadly-defined engineering activities with the engineering

Life Long Learning: Recognize the need for, and have the ability to engage in independent and life-long learning in specialist technologies.