

Program Outcomes (PO)

Chemical Engineering HK03 Program, Universiti Malaysia Sabah

The programme outcomes are listed as follows:

1) Engineering Knowledge – Apply knowledge of mathematics, natural science, engineering fundamentals and an engineering specialization to the solution of complex engineering problems (PO(i) in EAC manual 2012);

2) Problem Analysis – Identify, formulate, research literature and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences (PO(ii) in EAC manual 2012);

3) Design/Development of Solutions – Design solutions for complex engineering problems and design systems, components or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal and environmental considerations (PO(iii) in EAC manual 2012);

4) Investigation – Conduct investigations of complex problems using research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions (PO(iv) in EAC manual 2012);

5) Modern Tool Usage – Create, select and apply appropriate techniques, resources, and modern engineering and IT tools, including prediction and modeling, to complex engineering problems, with an understanding of limitations (PO(v) in EAC manual 2012);

6) The Engineer and Society – Apply reasoning informed by contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to professional engineering practice and solutions to complex engineering problems (PO(vi) in EAC manual 2012);

7) Environment and Sustainability – Understand and evaluate the sustainability and impact of professional engineering work in the solution of complex engineering problems in societal and environmental contexts (PO(vii) in EAC manual 2012);

8) Ethics – Apply ethical principles and commit to professional ethics and responsibilities and norm of engineering practice (PO(viii) in EAC manual 2012);

9) Individual and Team Work – function effectively as an individual, and as a member or leader in diverse teams and in multi-disciplinary settings (PO(x) in EAC manual 2012) ;

10) Communications – Communicate effectively on complex engineering activities with the engineering community and with society at large, such as being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions (PO(ix) in EAC manual 2012);

11) Project Management and Finance – Demonstrate knowledge and understanding of engineering management principles and economics decision-making and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments (PO(xii) in EAC manual 2012);

12) Lifelong Learning – Recognise the need for, and have the preparation and ability to engage in independent and lifelong