

**PEMETAAN MATLAMAT PENDIDIKAN INSTITUSI VS. OBJEKTIF PENDIDIKAN PROGRAM (PEO)
&
MATLAMAT PENDIDIKAN INSTITUSI VS. HASIL PEMBELAJARAN PROGRAM (PLO)**

PROGRAM: SARJANA MUDA TEKNOLOGI KEJURUTERAAN BIOPROSES DENGAN KEPUJIAN

PTJ: TEKNOLOGI INDUSTRI

a) Pemetaan PEO - IEG

PEO	PEO statement	THINKER (T) IEG1	BALANCED (B) IEG2	ENTREPRENEURIAL (E) IEG3	ARTICULATE (A) IEG4	HOLISTIC (H) IEG5
PEO1	Graduates who are competent, creative, innovative and capable of solving problems related to Bioprocess Engineering Technology at the global and society levels at the context of sustainable development.	√				√
PEO2	Graduates who have high leadership qualities and communication skills in addition to active involvement in engineering technology processes independently and in teams of different disciplines.		√		√	
PEO3	Graduates with professional and ethical qualities		√			
PEO4	Graduates who constantly strive to acquire new knowledge through research, continuing education and/or professional development activities.			√		√

b) Pemetaan PLO - IEG

PLO	MQF 2.0 DOMAIN	PROGRAM LEARNING OUTCOMES, PLO	IEG ELEMENT	
PLO1	PLO1	Apply knowledge related to mathematics, natural science, computing, fundamentals and specialization of bioprocess engineering to defined and applied bioprocess engineering technology procedures, processes, systems or methodologies (Knowledge).	IEG1	THINKER (T)
PLO2	PLO3 PLO7	Identify, formulate, research literature reviews and analyse broadly defined engineering related problems reaching substantiated conclusions using analytical tools appropriate to Bioprocess Engineering Technology with considerations for sustainable development (Problem Analysis).	IEG1	THINKER (T)
PLO3	PLO2	Design creative solutions for broadly-defined Bioprocess Engineering Technology problems and contribute to the design of systems, components or processes to meet identified needs with appropriate consideration for public health and safety, whole-life cost, net zero carbon as well as resource, cultural, society and environmental considerations (Design/Development of Solutions).	IEG1	THINKER (T)
PLO4	PLO3	Investigate broadly-defined bioprocess engineering technology problems by locate, search and select relevant data from codes, databases and literature, design, and conduct experiments to provide valid conclusions (Investigation).	IEG1	THINKER (T)
PLO5	PLO2	Select and apply, and recognize limitations of appropriate techniques, resources, and modern engineering and IT tools, including prediction and modelling to Bioprocess Engineering Technology (Tool Usage).	IEG1	THINKER (T)
PLO6	PLO3 PLO6	Analyze and evaluate sustainable development impacts to solve issues related society, economy, sustainability, health and safety, legal frameworks, and the environment by the professional practice of Bioprocess Engineering Technology (The Engineering Technologist and the World).	IEG2	BALANCED (B)
PLO7	PLO11	Understand and commit to professional ethics and norms of Bioprocess Engineering Technology practice and adhere to relevant national and international laws. Demonstrate an understanding of the need for diversity and inclusion (Ethics).	IEG2	BALANCED (B)
PLO8	PLO8 PLO9	Function effectively as an individual, and as a member or leader in diverse and inclusive teams and in multidisciplinary, face-to-face, remote and distributed settings (Individual and Collaborative Teamwork).	IEG5	HOLISTIC (H)
PLO9	PLO4 PLO5	Communicate effectively and inclusively on Bioprocess Engineering Technology activities with the community of engineering technologists and with society at large, by being able to comprehend, write effective reports and design documentation, make effective presentations, taking account cultural, language, and learning differences (Communications).	IEG4	ARTICULATE (A)

PLO10	PLO10	Apply knowledge and understanding of engineering management principles and economic decision-making and apply these criteria to one's own work, as a member and leader in a team, and to manage projects in multidisciplinary environments (Project Management and Finance) .	IEG3	ENTREPRENEURIAL (E)
PLO11	PLO9	Recognise the need for, and have the ability for: (i) independent and life-long learning and (ii) critical thinking in the face of new specialist technologies (Life Long Learning) .	IEG5	HOLISTIC (H)