

PROGRAMME LEARNING OUTCOMES (PLO)

PLO1	Ability to apply knowledge of mathematics, science, engineering fundamentals and engineering specialization principles to defined and applied engineering procedures, processes, systems or methodologies in the field of electrical engineering technology (industrial automation & robotics / industrial power).
PLO2	Ability to solve broadly-defined engineering problems systematically to reach substantiated conclusions, using tools and techniques appropriate to electrical engineering technology (industrial automation & robotics / industrial power).
PLO3	Ability to design solutions for broadly-defined engineering technology problems, and to design systems, components or processes to meet specified needs with appropriate consideration for public health and safety, as well as cultural, societal, environmental and sustainability concerns.
PLO4	Ability to plan and conduct experimental investigations of broadly-defined problems, using data from relevant sources.
PLO5	Ability to select and apply appropriate techniques, resources and modern engineering tools, with an understanding of their limitations.
PLO6	Ability to demonstrate an awareness of and consideration for societal, health, safety, legal and cultural issues and their consequent responsibilities.
PLO7	Ability to demonstrate an understanding of the impact of engineering technology practices, taking into account the need for sustainable development.
PLO8	Ability to demonstrate an understanding of professional ethics, responsibilities and norms of engineering technology practices.
PLO9	Ability to function effectively as individuals, and as members or leaders in diverse technical teams.
PLO10	Ability to communicate effectively with the engineering community and society at large.
PLO11	Ability to demonstrate an awareness of project management, business practices and entrepreneurship.
PLO12	Ability to recognise the need for professional development and to engage in independent and lifelong learning.

CURRICULUM STRUCTURE BELT

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 1	BELU 1013	Matematik Teknikal Technical Mathematics	P	3	
	BELE 1013	Fizik Teknikal Technical Physics	P	3	
	BELT 1303	Pengukuran dan Sistem Instrumentasi Measurement and Instrumentation System	K	3	
	BELR 1313	Rekabentuk Terbantu Komputer Computer Aided Design	K	3	
	BELK 1303	Pengenalan Litar Elektrik Electrical Circuit Fundamental	K	3	
	BLHW 1762	Falsafah dan Isu Semasa Philosophy and Current Issue	W	2	
	BKKX XXX1	Kokurikulum I Cocurriculum I	W	1	
TOTAL CREDITS THIS SEMESTER				18	
SEMESTER 2	BELU 1023	Kalkulus untuk Teknologi Calculus for Technology	P	3	
	BELT 1313	Bengkel Elektronik Electronics Workshop	K	3	
	BELK 1323	Elektrik & Kemagnetan Electrical & Magnetism	K	3	
	BELT 1323	Elektronik & Sistem Digital Digital Electronics & System	K	3	
	**BELK 1333	Litar Elektrik Lanjutan Advanced Electrical Circuits	K	3	BELK 1303
	BKKX XXX1	Kokurikulum II Cocurriculum II	W	1	
	BLLW 1442	Bahasa Inggeris untuk Akademik English for Academic Purposes	W	2	
	BLLW 1172	Bahasa Melayu Komunikasi I (untuk pelajar antarabangsa) Malay Language for Communication I (for international students)	W	2	
TOTAL CREDITS THIS SEMESTER					
LOCAL STUDENT				18	
INTERNATIONAL STUDENT				20	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 3	BELU 2053	Kalkulus Gunaan Applied Calculus	P	3	
	BELT 2333	Pemasangan Elektrik I Electrical Installation I	K	3	
	BELT 2343	Peranti Elektronik Electronic Devices	K	3	
	BELT 2353	Teknologi Elektrik Electrical Technology	K	3	
	BELR 1343	Pengaturcaraan Komputer Computer Programming	K	3	
	BELT 2361	Kerjaya Teknologi Kejuruteraan Elektrik Electrical Engineering Technology Career	K	1	
	BLLW 1XX2	Bahasa Ketiga Third Language	W	2	
TOTAL CREDITS THIS SEMESTER				18	
SEMESTER 4	BELU 2043	Kaedah Statistik Statistical Methods	P	3	
	BELR 2373	Sistem Terbenam Embedded Systems	K	3	
	BELT 2373	Pemasangan Elektrik II Electrical Installation II	K	3	
	BELR 2383	Pengenalan Sistem Kawalan Control System Fundamental	K	3	
	BELR 2353	Elektronik Analog Analog Electronics	K	3	
	BLLW 2152	Penulisan Akademik Academic Writing	W	2	
	***BLHX XXX2	Elektif Umum General Elective	E	2	
TOTAL CREDITS THIS SEMESTER				19	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 5	BELK 2373	Mesin Elektrik Electrical Machines	K	3	
	BELT 3383	Peranti Elektronik Kuasa Power Electronics Devices	K	3	
	BELK 2383	Teknologi Sistem Kuasa Power System Technology	K	3	
	BELT 3403	Automasi Industri Industrial Automation	K	3	
	BLHW 2772	Penghayatan Etika dan Peradaban (untuk pelajar tempatan) Appreciation of Ethics and Civilisation (for local students)	W	2	
	BLHW 2752	OR Kebudayaan Malaysia (untuk pelajar antarabangsa) Malaysian Culture (for international students)	W	2	
	*BELT 38X3	Elektif I Elective I	E	3	
	*BELT 38X3	Elektif II Elective II	E	3	
TOTAL CREDITS THIS SEMESTER				20	
SEMESTER 6	BELU 3764	Projek Sarjana Muda I Bachelor Degree Project I	K	4	
	BELT 4393	Sistem Elektronik Kuasa Power Electronics Systems	K	3	
	BELU 3803	Rekabentuk Projek Berintegrasi Integrated Design Project	K	3	
	BLHC 4032	Pemikiran Kritis dan Kreatif (untuk pelajar tempatan) Critical and Creative Thinking (for local students)	W	2	
	BLLW 3162	Bahasa Inggeris untuk Interaksi Profesional English for Professional Interaction	W	2	
	*BELT 38X3	Elektif III Elective III	E	3	
TOTAL CREDITS THIS SEMESTER				17	
LOCAL STUDENTS				17	
INTERNATIONAL STUDENTS				15	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 7	BELU 4053	Etika Kejuruteraan & KKPP Engineering Ethics & OSHE	P	3	
	**BELU 4774	Projek Sarjana Muda II Bachelor Degree Project II	K	4	BELU 3764
	BELT 4413	Kecekapan Tenaga Energy Efficiency	K	3	
	BELK 3403	Sistem Pengagihan Kuasa Power Distribution System	K	3	
	BTMW 4012	Keusahawanan Teknologi Technology Entrepreneurship	W	2	
	*BEEX XXX3	Elektif IV Elective IV	E	3	
TOTAL CREDITS THIS SEMESTER				18	
SEMESTER 8	BELU 48812	Latihan Industri Industrial Training	K	12	
	TOTAL CREDITS THIS SEMESTER				12
TOTAL CREDITS				140	

** Pre-requisite subject

* For Elective I, Elective II, Elective III and Elective IV students may choose strictly from either of the TWO (2) tracks below:

Track 1: Renewable Energy

CODE	SUBJECT NAME
BELT 3803	Sistem Tenaga Diperbaharui Renewable Energy System
BELT 3823	Teknologi Penyimpanan Tenaga Energy Storage Technology
BELT 3843	Rekabentuk Sistem PV PV System Design
BELT 3853	Aplikasi Elektronik Kuasa Power Electronics Application
BELK 4843	Keserasian Elektromagnetik Sistem Kuasa Power System Electromagnetic Compatibility
BELK 4853	Ekonomi Sistem dan Pasaran Elektrik Electricity Market and System Economics
BELK 4863	Kualiti Kuasa Power Quality
BELR 4863	Kepintaran Buatan Artificial Intelligence

Track 2: Electrical Transportation

CODE	SUBJECT NAME
BELT 3813	Pengenalan kepada Sistem Pengangkutan Elektrik Introduction To Electric Transportation System
BELT 3823	Teknologi Penyimpanan Tenaga Energy Storage Technology
BELT 3853	Aplikasi Elektronik Kuasa Power Electronics Application
BELT 3863	Pemacu Motor dan Sistem Tarikan Motor Drive and Traction System
BELK 4843	Keserasian Elektromagnetik Sistem Kuasa Power System Electromagnetic Compatibility
BELR 4863	Kepintaran Buatan Artificial Intelligence
BELT 4903	Sistem Pemacu Moden Modern Drive System
BELT 4913	Kenderaan Elektrik Hibrid Hybrid Electric Vehicle

*** For General elective, students may choose any ONE (1) subject from the list below:

CODE	SUBJECT NAME
BLHW 1722	Falsafah Sains Dan Teknologi Philosophy of Science and Technology
BLHC 4012	Komunikasi Organisasi Organizational Communication
BLHH 1032	Psikologi Industri dan Organisasi Industrial Psychology and Organisation
BLHC 4022	Kemahiran Perundingan Negotiation Skills
BLHW 2782	Sosiologi Industri Industrial Sociology
BLHW 2792	Integriti dan Anti-Rasuah Integrity and Anti-Corruption

Besides the aforementioned curriculum, the Programme offers professional certificate courses as an added value for the students to increase their employability. Students may choose any ONE (1) subject from the following list.

CODE	CERTIFICATE NAME
BELR 3100	Certified LabView Associate Developer (CLAD)
BEEE 3100	Programmable Logic Controller (PLC) Level 1 and Level 2
BEEZ 3100	SMCT MT1 – Practical Mechatronics 1

Number of credit hours regarding to course category is represented in the table below.

W = university compulsory subjects

P = program core subjects

K = course core subjects

E = elective subjects

Programme P	P	18
Course K	K	78
University Compulsory	W	18
Industrial Training	K	12
Elective	E	14
		140