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.
PO12	Ability to recognise the need for professional development and to engage in independent and lifelong learning.

CURRICULUM STRUCTURE BELR

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 1	BELG 1013	Matematik Teknikal Technical Mathematics	P	3	
	BELR 1304	Elektronik & Sistem Digital Digital Electronics & Systems	K	4	
	BELT 1303	Pengukuran dan Instrumentasi Measurement and Instrumentation	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				**19**	
SEMESTER 2	BMIG 1023	Kalkulus untuk Teknologi Calculus for Technology	P	3	
	BELK 1311	Bengkel Elektrik I Electrical Workshop I	K	1	
	BELK 1323	Elektrik & Kemagnetan Electrical & Magnetism	K	3	
	BELK 1453	Prinsip Elektronik Electronics Principle	K	3	BELK 1303
	**BELK 1333	Litar Elektrik Lanjutan Advanced Electrical Circuits	K	3	
	BELR 1343	Pengaturcaraan Komputer Computer Programming	K	3	
	BLLW 1142	Bahasa Inggeris untuk Akademik English for Academic Purposes	W	2	
	BLLW 1172	Bahasa Melayu Komunikasi (untuk pelajar antarabangsa) Malay Language for Communication (for international students)	W	2	
TOTAL CREDITS THIS SEMESTER					
LOCAL STUDENT				**18**	
INTERNATIONAL STUDENT				**20**	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 3	BMKG 2033	Kalkulus Gunaan Applied Calculus	P	3	
	BELR 2061	Seminar Kejuruteraan I Engineering Seminar I	P	1	
	**BELK 2342	Bengkel Elektrik II Electrical Workshop II	K	2	BELK 1311
	BELR 2363	Statik & Mekanik Static & Mechanics	K	3	
	BELK 2364	Teknologi Elektrik Electrical Technology	K	4	
	BELK 2373	Mesin Elektrik Electrical Machine	K	3	
	BLLW 1XX2	Bahasa Ketiga Third Language	W	2	
	BKKX XXX1	Kokurikulum II Cocurriculum II	W	1	
TOTAL CREDITS THIS SEMESTER				**19**	
SEMESTER 4	BERG 2043	Kaedah Statistik Statistical Methods	P	3	
	BELR 2373	Sistem Terbenam Embedded Systems	K	3	
	BELK 3413	Elektronik Kuasa Power Electronics	K	3	
	BMKC 2323	Mekanik Bendalir Fluids Mechanics	K	3	
	BELR 2383	Pengenalan Sistem Kawalan Control System Fundamental	K	3	
	BLLW 2152	Penulisan Akademik Academic Writing	W	2	
	***BLHXXXX2	Elektif Umum General Elective	E	2	
TOTAL CREDITS THIS SEMESTER				**19**	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 5	BELK 2383	Sistem Kuasa Lanjutan Advanced Power System	K	3	
	BELR 3463	Data Komunikasi Industri Industrial Data Communication	K	3	
	**BELR 3393	Kejuruteraan Sistem Kawalan Control System Engineering	K	3	BELR 2383
	BELR 3453	Sistem Kawalan Peggerak Motion Control System	K	3	
	BELR 3473	PLC & Automasi PLC & Automation	K	3	
	BLHW 2772 OR BLHW 2752	Penghayatan Etika dan Peradaban (untuk pelajar tempatan) Aprreciation of Ethics and Civilisation (for local students) OR Kebudayaan Malaysia (untuk pelajar antarabangsa) Malaysian Culture (for international students)	W	2	
TOTAL CREDITS THIS SEMESTER				**17**	
SEMESTER 6	BELK 3061	Seminar Kejuruteraan II Engineering Seminar II	P	1	
	BELU 4053	Etika Kejuruteraan & KPPP Engineering Ethics & OSHE	P	3	
	BELU 3764	Projek Sarjana Muda I Bachelor Degree Project I	K	4	
	BELR 3443	Pneumatik & Hidraulik Pneumatic & Hydraulic	K	3	
	BELU 3803	Rekabentuk Projek Bersepadu Integrated Design Project	K	3	
	BLLW 3162	Bahasa Inggeris untuk Interaksi Profesional English for Professional Interaction	W	2	
TOTAL CREDITS THIS SEMESTER				**16**	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 7	**BELU 4774	Projek Sarjana Muda II Bachelor Degree Project II	K	4	BELU 3764
	BLHC 4032	Pemikiran Kritis dan Kreatif (untuk pelajar tempatan) Critical and Creative Thinking (for local students)	W	2	
	BTMW 4012	Keusahawanan Teknologi Technology Enterpreneurship	W	2	
	*BELR 48X3	Elektif I Elective I	E	3	
	*BELR 48X3	Elektif II Elective II	E	3	
	*BELR 48X3	Elektif III Elective III	E	3	
TOTAL CREDITS THIS SEMESTER					
LOCAL STUDENT				**17**	
INTERNATIONAL STUDENT				**15**	
SEMESTER 8	BELU 48812	Latihan Industri Industrial Training	K	12	
TOTAL CREDITS THIS SEMESTER				**12**	
TOTAL CREDITS				**140**	

For Elective I, II & III students may choose any THREE (3) subject from the list below:

No.	CODE	SUBJECT
1	BELR 4803	Sistem Pembuatan Teranjal Flexible Manufacturing System
2	BELR 4813	Kawalan Proses Industri Industrial Process Control
3	BELR 4823	Penglihatan Mesin Machine Vision
4	BELR 4833	Sistem Kawalan Teragih Distributed Control System
5	BELR 4843	Sistem Pembuatan Manufacturing System
6	BELR 4853	Sistem Kawalan Lanjutan Advanced Control System
7	BELR 4863	Kepintaran Buatan Artificial Intelligence
8	BELR 4873	Teknologi Penyelenggaraan & Pengurusan Aset Maintenance Technology & Asset Management

*** 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 Psycology and Organization
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
BITS 2610	Cisco Certified Network Associate Routing & Switching (Preparation)
BERC 2210	IoT Fundamentals: Connecting Things Professional Certification
BERC 2220	IoT Fundamentals: Big Data & Analytics Professional Certification
BERE 3210	Programmable Logic Controller (PLC) Level 1 and Level 2
BEER 4210	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	17
Course K	K	82
University Compulsory	W	18
Industrial Training	K	12
Elective	E	11
		140