

Bachelor of Electrical Engineering Technology (Industrial Automation & Robotic) with Honours (BELR)

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 1	BELG 1013	Matematik Teknikal <i>Technical Mathematics</i>	P	3	
	BELK 1453	Prinsip Elektronik <i>Electronics Principle</i>	K	3	
	BELT 1303	Pengukuran dan Instrumentasi <i>Measurement and Instrumentation</i>	K	3	
	BELR 1313	Rekabentuk Terbantu Komputer <i>Computer Aided Design</i>	K	3	
	BELK 1303	Pengenalan Litar Elektrik <i>Electrical Circuit Fundamental</i>	K	3	
	BLLW 1142	Bahasa Inggeris Untuk Akademik <i>English For Academic Purposes</i>	W	2	
	BKKX XXX1	Kokurikulum I <i>Cocurriculum I</i>	W	1	
TOTAL CREDITS THIS SEMESTER				18	
SEMESTER 2	BMIG 1023	Kalkulus untuk Teknologi <i>Calculus for Technology</i>	P	3	
	BELK 1311	Bengkel Elektrik I <i>Electrical Workshop I</i>	K	1	
	BELK 1323	Elektrik & Kemagnetan <i>Electrical & Magnetism</i>	K	3	
	BELR 1304	Elektronik & Sistem Digital <i>Digital Electronics & Systems</i>	K	4	
	**BELK 1333	Litar Elektrik Lanjutan <i>Advanced Electrical Circuits</i>	K	3	BELK 1303
	BELR 1353	Pengaturcaraan Komputer <i>Computer Programming</i>	K	3	
	BLHW 1762	Falsafah dan Isu Semasa <i>Philosophy and Current Issue</i>	W	2	
	BKKX XXX1	Kokurikulum II <i>Cocurriculum II</i>	W	1	
TOTAL CREDITS THIS SEMESTER				20	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 3	BMKG 2033	Kalkulus Gunaan <i>Applied Calculus</i>	P	3	
	**BELK 2342	Bengkel Elektrik II <i>Electrical Workshop II</i>	K	2	BELK 1311
	BELR 2363	Statik & Mekanik <i>Static & Mechanics</i>	K	3	
	BELK 2364	Teknologi Elektrik <i>Electrical Technology</i>	K	4	
	BELK 2373	Mesin Elektrik <i>Electrical Machine</i>	K	3	
	BELK 2393	Aplikasi Sistem Isyarat <i>Applied Signal Systems</i>	K	3	
	BLLW 1XX2	Bahasa ketiga (Untuk Pelajar Tempatan) <i>Third Language (For Local Students)</i> Atau/Or	W	2	
BLLW 1172	Bahasa Melayu Komunikasi I (untuk pelajar antarabangsa) <i>Malay Language for Communication I</i> (for international students)				
TOTAL CREDITS THIS SEMESTER				20	
SEMESTER 4	BERG 2043	Kaedah Statistik <i>Statistical Methods</i>	P	3	
	BELR 2373	Sistem Terbenam <i>Embedded Systems</i>	K	3	
	BELK 3413	Elektronik Kuasa <i>Power Electronics</i>	K	3	
	BMKT 2523	Mekanik Bendalir <i>Fluids Mechanics</i>	K	3	
	BELR 2383	Pengenalan Sistem Kawalan <i>Control System Fundamental</i>	K	3	
	BLLW 2152	Penulisan Akademik <i>Academik Writing</i>	W	2	
	BLHW 2792	Integriti dan Anti-Rasuah <i>Integrity and Anti-Corruption</i>	W	2	
TOTAL CREDITS THIS SEMESTER				19	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 5	BELK 2383	Teknologi Sistem Kuasa <i>Power System Technology</i>	K	3	
	BELR 3463	Data Komunikasi Industri <i>Industrial Data Communication</i>	K	3	
	**BELR 3393	Kejuruteraan Sistem Kawalan <i>Control System Engineering</i>	K	3	BELR 2383
	BELR 3453	Sistem Kawalan Peggerak <i>Motion Control System</i>	K	3	
	BELR 3473	PLC & Automasi <i>PLC & Automation</i>	K	3	
	BLHW 2772	Penghayatan Etika dan Peradaban (untuk pelajar tempatan) <i>Appreciation of Ethics and Civilisation</i> (for local students)	W	2	
	BLHW 2752	Kebudayaan Malaysia (untuk pelajar antarabangsa) <i>Malaysian Culture</i> (for international students)	W	2	
TOTAL CREDITS THIS SEMESTER				17	
SEMESTER 6	BELU 4053	Etika Kejuruteraan & KKPP <i>Engineering Ethics & OSHE</i>	P	3	
	BELK 3071	Seminar Kejuruteraan <i>Engineering Seminar</i>	P	1	
	BELU 3764	Projek Sarjana Muda I <i>Bachelor Degree Project I</i>	K	4	
	BELR 3443	Pneumatik & Hidraulik <i>Pneumatic & Hydraulic</i>	K	3	
	BELR 3433	Robotik Industri <i>Industrial Robotic</i>	K	3	
	BELU 3803	Rekabentuk Projek Bersepadu <i>Integrated Design Project</i>	K	3	
	BLLW 3162	Bahasa Inggeris untuk Interaksi Profesional <i>English for Professional Interaction</i>	W	2	
TOTAL CREDITS THIS SEMESTER				19	

	CODE	SUBJECT	CATEGORY	CREDIT	PRE-REQUISITE
SEMESTER 7	**BELU 4774	Projek Sarjana Muda II <i>Bachelor Degree Project II</i>	K	4	BELU 3764
	BTMW 4012	Keusahawanan Teknologi <i>Technology Entrepreneurship</i>	W	2	
	*BELR 48X3	Elektif I <i>Elective I</i>	E	3	
	*BELR 48X3	Elektif II <i>Elective II</i>	E	3	
	*BELR 48X3	Elektif II <i>Elective II</i>	E	3	
TOTAL CREDITS THIS SEMESTER				15	
SEMESTER 8	BELU 48812	Latihan Industri <i>Industrial Training</i>	K	12	
	TOTAL CREDITS THIS SEMESTER				12
TOTAL CREDITS				140	

** Pre-requisite subject

* For Elective I, II and III students may choose any THREE (3) subject from the list below including Integrated Bachelor–Master Elective Courses

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

* Electives for Integrated Bachelor–Master Elective Courses

CODE	SUBJECT NAME
BELC 5133	Reka Bentuk Kawalan Moden <i>Modern Control Design</i>
BELM 5233	Dinamik Sistem <i>System Dynamics</i>
BELE 5143	Mesin dan Pemacu Elektrik Lanjutan <i>Advanced Electrical Machines and Drives</i>
BELM 5113	Reka Bentuk Sistem Mekatronik Lanjutan <i>Advanced Mechatronic System Design</i>
BELM 5123	Pemodelan dan Simulasi Sistem Gunaan <i>Applied System Modeling and Simulation</i>

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 3100	Programmable Logic Controller (PLC) Level 1 and Level 2
BERZ 3100	SMCT MT1 – Practical Mechatronics 1
BELT 3100	Energy Efficient for Lighting

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	16
Course	K	85
University Compulsory	W	18
Industrial Training	K	12
Elective	E	9
		140