

## Bachelor of Electrical Engineering Technology with Honours (BELT) for Handbook 2025/2026

|                             | CODE        | SUBJECT                                                                              | CATEGORY | CREDIT | PRE-REQUISITE |
|-----------------------------|-------------|--------------------------------------------------------------------------------------|----------|--------|---------------|
| SEMESTER 1                  | BELG 1013   | Matematik Teknikal<br><i>Technical Mathematics</i>                                   | P        | 3      |               |
|                             | BERE 1013   | Fizik Teknikal<br><i>Technical Physics</i>                                           | P        | 3      |               |
|                             | BELT 1303   | Pengukuran dan Sistem Instrumentasi<br><i>Measurement and Instrumentation System</i> | K        | 3      |               |
|                             | BELR 1313   | Rekabentuk Terbantu Komputer<br><i>Computer Aided Design</i>                         | K        | 3      |               |
|                             | BELK 1303   | Pengenalan Litar Elektrik<br><i>Electrical Circuit Fundamental</i>                   | K        | 3      |               |
|                             | BLLW 1142   | Bahasa Inggeris untuk Akademik<br><i>English for Academic Purpose</i>                | W        | 2      |               |
|                             | BKKX XXX1   | Kokurikulum I<br><i>Cocurriculum I</i>                                               | W        | 1      |               |
| TOTAL CREDITS THIS SEMESTER |             |                                                                                      |          | 18     |               |
| SEMESTER 2                  | BMIG 1023   | Kalkulus untuk Teknologi<br><i>Calculus for Technology</i>                           | P        | 3      |               |
|                             | BELT 1313   | Bengkel Elektronik<br><i>Electronics Workshop</i>                                    | K        | 3      |               |
|                             | BELK 1323   | Elektrik & Kemagnetan<br><i>Electrics &amp; Magnetism</i>                            | K        | 3      |               |
|                             | BELR 1304   | Elektronik & Sistem Digital<br><i>Digital Electronics &amp; System</i>               | K        | 4      |               |
|                             | **BELK 1333 | Litar Elektrik Lanjutan<br><i>Advanced Electrical Circuit</i>                        | K        | 3      | BELK 1303     |
|                             | BKKX XXX1   | Kokurikulum II<br><i>Cocurriculum II</i>                                             | W        | 1      |               |
|                             | BLHW 1762   | Falsafah dan Isu Semasa<br><i>Philosophy and Current Issue</i>                       | W        | 2      |               |
| TOTAL CREDITS THIS SEMESTER |             |                                                                                      |          |        |               |
| LOCAL STUDENTS              |             |                                                                                      |          | 19     |               |

|                             | CODE                       | SUBJECT                                                                                                                                                                                                                                                           | CATEGORY | CREDIT | PRE-REQUISITE |
|-----------------------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|---------------|
| SEMESTER 3                  | BMKG 2053                  | Kalkulus Gunaan<br><i>Applied Calculus</i>                                                                                                                                                                                                                        | P        | 3      |               |
|                             | BELT 2333                  | Pemasangan Elektrik I<br><i>Electrical Installation I</i>                                                                                                                                                                                                         | K        | 3      |               |
|                             | BELK 1453                  | Prinsip Elektronik<br><i>Electronic Principle</i>                                                                                                                                                                                                                 | K        | 3      |               |
|                             | BELR 1343                  | Pengaturcaraan Komputer<br><i>Computer Programming</i>                                                                                                                                                                                                            | K        | 3      |               |
|                             | BELK 2364                  | Teknologi Elektrik<br><i>Electrical Technology</i>                                                                                                                                                                                                                | K        | 4      |               |
|                             | BLLW 1XX2<br><br>BLLW 1172 | Bahasa ketiga ( <b>Untuk Pelajar Tempatan</b> )<br><i>Third Language (For Local Students)</i><br>Atau/Or<br>Bahasa Melayu Komunikasi I<br><b>(untuk pelajar antarabangsa)</b><br><i>Malay Language for Communication I</i><br><b>(for international students)</b> | W        | 2      |               |
| TOTAL CREDITS THIS SEMESTER |                            |                                                                                                                                                                                                                                                                   |          | 18     |               |
| SEMESTER 4                  | BERG 2043                  | Kaedah Statistik<br><i>Statistical Methods</i>                                                                                                                                                                                                                    | P        | 3      |               |
|                             | BELR 2373                  | Sistem Terbenam<br><i>Embedded Systems</i>                                                                                                                                                                                                                        | K        | 3      |               |
|                             | BELT 2373                  | Pemasangan Elektrik II<br><i>Electrical Installation II</i>                                                                                                                                                                                                       | K        | 3      |               |
|                             | BELR 2383                  | Pengenalan Sistem Kawalan<br><i>Control System Fundamental</i>                                                                                                                                                                                                    | K        | 3      |               |
|                             | BELK 2393                  | Isyarat Sistem & Komunikasi<br><i>Signal System &amp; Communication</i>                                                                                                                                                                                           | K        | 3      |               |
|                             | BLLW 2152                  | Penulisan Akademik<br><i>Academic Writing</i>                                                                                                                                                                                                                     | W        | 2      |               |
|                             | BLHW 2792                  | Integriti dan Anti Rasuah<br><i>Integrity and Anti-Corruption</i>                                                                                                                                                                                                 | W        | 2      |               |
| TOTAL CREDITS THIS SEMESTER |                            |                                                                                                                                                                                                                                                                   |          | 19     |               |

|                             | CODE                   | SUBJECT                                                                                                                                                                                                                                                   | CATEGORY | CREDIT | PRE-REQUISITE |
|-----------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|--------|---------------|
| SEMESTER 5                  | BELK 2373              | Mesin Elektrik<br><i>Electrical Machines</i>                                                                                                                                                                                                              | K        | 3      |               |
|                             | BELT 3383              | Peranti Elektronik Kuasa<br><i>Power Electronics Devices</i>                                                                                                                                                                                              | K        | 3      |               |
|                             | BELK 2383              | Teknologi Sistem Kuasa<br><i>Power System Technology</i>                                                                                                                                                                                                  | K        | 3      |               |
|                             | BELT 3403              | Automasi Industri<br><i>Industrial Automation</i>                                                                                                                                                                                                         | K        | 3      |               |
|                             | BLHW 2772<br>BLHW 2752 | Penghayatan Etika dan Peradaban<br>(untuk pelajar tempatan)<br><i>Appreciation of Ethics and Civilisations</i><br>(for local students)<br>Kebudayaan Malaysia<br>(untuk pelajar antarabangsa)<br><i>Malaysian Culture</i><br>(for international students) | W        | 2      |               |
|                             | *BELT 38X3             | Elektif I<br><i>Elective I</i>                                                                                                                                                                                                                            | E        | 3      |               |
|                             | *BELT 38X3             | Elektif II<br><i>Elective II</i>                                                                                                                                                                                                                          | E        | 3      |               |
| TOTAL CREDITS THIS SEMESTER |                        |                                                                                                                                                                                                                                                           |          | 20     |               |
| SEMESTER 6                  | BELK 3071              | Seminar Kejuruteraan<br><i>Engineering Seminar</i>                                                                                                                                                                                                        | P        | 1      |               |
|                             | BELU 3764              | Projek Sarjana Muda I<br><i>Bachelor Degree Project I</i>                                                                                                                                                                                                 | K        | 4      |               |
|                             | BELT 4393              | Sistem Elektronik Kuasa<br><i>Power Electronics Systems</i>                                                                                                                                                                                               | K        | 3      |               |
|                             | BELU 3803              | Rekabentuk Projek Berintegrasi<br><i>Integrated Design Project</i>                                                                                                                                                                                        | K        | 3      |               |
|                             | BLLW 3162              | Bahasa Inggeris untuk Interaksi Profesional<br><i>English for Professional Interaction</i>                                                                                                                                                                | W        | 2      |               |
|                             | *BELT 38X3             | Elektif III<br><i>Elective III</i>                                                                                                                                                                                                                        | E        | 3      |               |
| TOTAL CREDITS THIS SEMESTER |                        |                                                                                                                                                                                                                                                           |          | 16     |               |

|                             | CODE                        | SUBJECT                                                           | CATEGORY | CREDIT | PRE-REQUISITE |
|-----------------------------|-----------------------------|-------------------------------------------------------------------|----------|--------|---------------|
| SEMESTER 7                  | BELU 4053                   | Etika Kejuruteraan & KKPP<br><i>Engineering Ethics &amp; OSHE</i> | P        | 3      |               |
|                             | **BELU 4774                 | Projek Sarjana Muda II<br><i>Bachelor Degree Project II</i>       | K        | 4      | BEEU 3764     |
|                             | BELT 4413                   | Kecekapan Tenaga<br><i>Energy Efficiency</i>                      | K        | 3      |               |
|                             | BELK 3403                   | Sistem Pengagihan Kuasa<br><i>Power Distribution System</i>       | K        | 3      |               |
|                             | BTMW 4012                   | Keusahawanan Teknologi<br><i>Technology Entrepreneurship</i>      | W        | 2      |               |
|                             | *BEEEX XXX3                 | Elektif IV<br><i>Elective IV</i>                                  | E        | 3      |               |
| TOTAL CREDITS THIS SEMESTER |                             |                                                                   |          | 18     |               |
| SEMESTER 8                  | BELU 48812                  | Latihan Industri<br><i>Industrial Training</i>                    | 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<br><i>Renewable Energy System</i>                                 |
| BELT 3823 | Teknologi Penyimpanan Tenaga<br><i>Energy Storage Technology</i>                             |
| BELT 3843 | Rekabentuk Sistem PV<br><i>PV System Design</i>                                              |
| BELT 3853 | Aplikasi Elektronik Kuasa<br><i>Power Electronics Application</i>                            |
| BELK 4843 | Keserasian Elektromagnetik Sistem Kuasa<br><i>Power System Electromagnetic Compatibility</i> |
| BELK 4853 | Ekonomi Sistem dan Pasaran Elektrik<br><i>Electricity Market and System Economics</i>        |
| BELK 4863 | Kualiti Kuasa<br><i>Power Quality</i>                                                        |
| BELR 4863 | Kepintaran Buatan<br><i>Artificial Intelligence</i>                                          |

Track 2: Electrical Transportation

| CODE      | SUBJECT NAME                                                                                            |
|-----------|---------------------------------------------------------------------------------------------------------|
| BELT 3813 | Pengenalan kepada Sistem Pengangkutan Elektrik<br><i>Introduction To Electric Transportation System</i> |

|           |                                                                                              |
|-----------|----------------------------------------------------------------------------------------------|
| BELT 3823 | Teknologi Penyimpanan Tenaga<br><i>Energy Storage Technology</i>                             |
| BELT 3853 | Aplikasi Elektronik Kuasa<br><i>Power Electronics Application</i>                            |
| BELT 3863 | Pemacu Motor dan Sistem Tarikan<br><i>Motor Drive and Traction System</i>                    |
| BELK 4843 | Keserasian Elektromagnetik Sistem Kuasa<br><i>Power System Electromagnetic Compatibility</i> |
| BELR 4863 | Kepintaran Buatan<br><i>Artificial Intelligence</i>                                          |
| BELT 4903 | Sistem Pemacu Moden<br><i>Modern Drive System</i>                                            |
| BELT 4913 | Kenderaan Elektrik Hibrid<br><i>Hybrid Electric Vehicle</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                                                    |
|-----------|---------------------------------------------------------------------|
| BERC 2220 | IoT Fundamentals: Big Data & Analytics Professional Certification   |
| BERC 2210 | IoT Fundamentals: Connecting Things Professional Certification      |
| BITS 2610 | Cisco Certified Network Associate Routing & Switching (Preparation) |
| BEEE 3100 | Programmable Logic Controller (PLC) Level 1 and Level 2             |
| BEEZ 3100 | SMCT MT1 – Practical Mechatronics 1                                 |
| BELT 3100 | Energy Efficiency for Lighting                                      |

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

|                              |          |            |
|------------------------------|----------|------------|
| <b>Programme P</b>           | <b>P</b> | <b>19</b>  |
| <b>Course K</b>              | <b>K</b> | <b>79</b>  |
| <b>University Compulsory</b> | <b>W</b> | <b>18</b>  |
| <b>Industrial Training</b>   | <b>K</b> | <b>12</b>  |
| <b>Elective</b>              | <b>E</b> | <b>12</b>  |
|                              |          | <b>140</b> |

Number