

**PENTING / IMPORTANT:**

Kandungan Pro Forma ini tidak boleh diubah tanpa kelulusan Senat bagi perkara-perkara yang telah ditandakan\*. Pindaan kepada perkara lain boleh diluluskan di peringkat Akademi/Fakulti/Institut/Pusat.

*Contents of this Pro Forma shall not be changed without the Senate's approval for items indicated with \*. Changes to the other items can be approved at the Academy/Faculty/Institution/Centre level.*

	<b>Versi Bahasa Malaysia Malay Version</b>	<b>Versi Bahasa Inggeris English Version</b>
Akademi/Fakulti/Institut/Pusat <i>Academy/Faculty/Institute/Centre</i>	Fakulti Kejuruteraan	<i>Faculty of Engineering</i>
Jabatan <i>Department</i>	Jabatan Kejuruteraan Elektrik	<i>Department of Electrical Engineering</i>
Nama Program Akademik <i>Name of Academic Programme</i>	Sarjana Muda Kejuruteraan Elektrik	<i>Bachelor of Electrical Engineering</i>
Kod Kursus* <i>Course Code*</i>	KIE3009	<i>KIE3009</i>
Tajuk Kursus* <i>Course Title*</i>	Penukaran Tenaga dan Penghantaran Voltan Tinggi	<i>Energy Conversion and High Voltage Transmission</i>
Kredit* <i>Credit*</i>	3	3
Masa Pembelajaran Pelajar (SLT) <i>Student Learning Time (SLT)</i>	120	120
Prasyarat/Keperluan Minimum Kursus <i>Course Pre-requisite(s)/Minimum Requirement(s)</i>	Tiada	<i>None</i>
Hasil Pembelajaran Kursus* <i>Course Learning Outcomes*</i>	Di akhir kursus ini, pelajar dapat: <ol style="list-style-type: none"> <li>1) Menjelaskan kaedah penukaran tenaga dan penjanaan kuasa elektrik</li> <li>2) Menganalisa rangkaian dan litar setara peralatan sistem kuasa</li> <li>3) Mengira arus kegagalan simetri dan parameter penyelarasan penebat</li> </ol>	<i>At the end of the course, students are able to:</i> <ol style="list-style-type: none"> <li>1) <i>Explain electric energy conversion and power generation methods</i></li> <li>2) <i>Analyse power system network and equipment equivalent circuits</i></li> <li>3) <i>Calculate symmetrical fault current and insulation coordination parameters</i></li> </ol>

	<b>Versi Bahasa Malaysia Malay Version</b>	<b>Versi Bahasa Inggeris English Version</b>
Kemahiran Insaniah <i>Soft Skills</i>	Kemahiran Pemikiran Kritis dan Penyelesaian Masalah (CT1-CT3)	<i>Critical Thinking and Problem Solving Skills (CT1-CT3)</i>
Sinopsis Kandungan Kursus <i>Synopsis of Course Contents</i>	Pelajar akan diperkenalkan kepada pelbagai kaedah penukaran tenaga dan penjanaan kuasa elektrik dan komponen sistem kuasa termasuk pengubah, penjana dan peranti perlindungan sistem. Pelajar akan diajar mengenai cara menganalisa rangkaian sistem kuasa dan kegagalan simetri menggunakan perisian simulasi. Lebihan voltan, penyelarsan penebat dan talian penghantaran arus terus voltan tinggi juga diliputi di dalam kursus ini.	<i>Students will be introduced to various energy conversion and electric power generation methods and power system components including transformers, generators and system protection devices. Students will be taught on how to analyse power system networks and symmetrical faults using simulation software. Overvoltage, insulation coordination and high voltage direct current transmission lines are also covered in this course.</i>
Pemberatan Penilaian* <i>Assessment Weightage*</i>	Penilaian Berterusan: 40% Peperiksaan Akhir: 60%	<i>Continuous Assessment: 40% Final Examination: 60%</i>
Kaedah Maklum Balas Tentang Prestasi <i>Methodologies for Feedback on Performance</i>	Maklumbalas secara dalam talian	<i>Online feedback</i>
Kriteria Dalam Penilaian Sumatif <i>Criteria in Summative Assessment</i>	Sila rujuk Kaedah-Kaedah Universiti Malaya (Pengajian Ijazah Pertama) 2017 dan Peraturan-Peraturan Universiti Malaya (Pengajian Ijazah Pertama) 2017	<i>Please refer to the University Of Malaya (First Degree Studies) Rules 2017 And University Of Malaya (First Degree Studies) Regulations 2017</i>