

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.*

	Versi Bahasa Malaysia Malay Version	Versi Bahasa Inggeris English Version
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>	KIE4026	<i>KIE4026</i>
Tajuk Kursus* <i>Course Title*</i>	Rangkaian Komunikasi Data	<i>Data Communication Networks</i>
Kredit* <i>Credit*</i>	2	<i>2</i>
Masa Pembelajaran Pelajar (SLT) <i>Student Learning Time (SLT)</i>	80	<i>80</i>
Prasyarat/Keperluan Minimum Kursus <i>Course Pre-requisite(s)/Minimum Requirement(s)</i>	Tiada	<i>No</i>
Hasil Pembelajaran Kursus* <i>Course Learning Outcomes*</i>	Di akhir kursus ini, pelajar dapat: <ol style="list-style-type: none"> 1) Menentukan peranan dan kepentingan komunikasi data dalam rangkaian. 2) Menganalisis operasi protokol komunikasi dalam memenuhi keperluan rangkaian. 3) Menilai prestasi pelbagai protokol dalam rangkaian moden. 	<i>At the end of the course, students are able to:</i> <ol style="list-style-type: none"> 1) <i>Determine the role and importance of data communication in networking.</i> 2) <i>Analyse the operations of communication protocols in fulfilling network requirements.</i> 3) <i>Evaluate the performance of various protocols in modern networking.</i>

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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>	Kursus ini bertujuan untuk memberikan gambaran yang bersepadu tentang rangkaian komunikasi data. Ia merangkumi senibina protokol TCP/IP dan konsep yang digunakan di setiap lapisan, termasuk teknik pengekodan, pengendalian ralat, kawalan pautan data, pemultipleksan dan perebakan spektrum, pensuisan dan perhalaaan, dan kawalan kesesakan.	<i>This course attempts to provide a unified overview of the data communication networks. It encompasses the TCP/IP protocol architecture and the concepts used at every layer, including encoding techniques, error handling, data link control, multiplexing and spread spectrum, switching and routing, and congestion control.</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 dalam talian dan komen secara lisan.	<i>Online feedback and oral comments.</i>
Kriteria Dalam Penilaian Sumatif <i>Criteria in Summative Assessment</i>	Sila rujuk Kaedah-Kaedah Universiti Malaya (Pengajian Ijazah Pertama) 2019 dan Peraturan-Peraturan Universiti Malaya (Pengajian Ijazah Pertama) 2019	<i>Please refer to the University Of Malaya (First Degree Studies) Rules 2019 And University Of Malaya (First Degree Studies) Regulations 2019</i>