

Sesi Akademik <i>Academic Session</i>	2020/2021
Semester/Penggal <i>Semester/Term</i>	1
Kod Kursus <i>Course Code</i>	KIE4014
Tajuk Kursus <i>Course Title</i>	Komunikasi Tanpa Wayar <i>Wireless Communications</i>
Bahasa Pengantar <i>Medium of Instruction</i>	Bahasa Inggeris <i>English</i>
Rujukan Utama <i>Main Reference</i>	1. Andrea Goldsmith, Wireless Communications, Cambridge University Press, 2012. 2. Andreas Molisch, Wireless Communications, Wiley, 2012.
Strategi Pembelajaran <i>Learning Strategies</i>	Kuliah, Tutorial, Tugasan <i>Lectures, Tutorials, Assignment</i>
Masa Pembelajaran Pelajar <i>Student Learning Time</i>	Bersemuka / <i>Face to face</i> : 31 jam/hours Tidak Bersemuka / <i>Non Face to face</i> : 0 jam/hour Masa Persediaan Pelajar / <i>Student Preparation Time</i> : 49 jam/hours
Kemahiran Boleh Pindah <i>Transferable Skills</i>	Kemahiran Menganalisa <i>Analytical Skills.</i>
Pensyarah / <i>Lecturer</i> Bilik / <i>Room</i> Telefon/e-mel <i>Telephone/e-mail</i>	Dr. Wan Amirul / Dr. Tengku Faiz 03-79675205 / wanamirul@um.edu.my, tengkufaiz@um.edu.my
Sesi Kuliah / <i>Lecture Session:</i> Hari/Masa / <i>Day/Time</i> Tempat / <i>Venue</i>	Rujuk jadual waktu kuliah <i>Refer to the lecture timetable</i>
Sesi Tutorial/Amali: <i>Tutorial/Practical Session:</i> Hari/Masa / <i>Day/Time</i> Tempat / <i>Venue</i>	Rujuk jadual waktu kuliah <i>Refer to the lecture timetable</i>
Perincian Pemberatan Penilaian <i>Detail of Assessment Weightage</i>	Penilaian Berterusan / <i>Continuous Assessment</i> : 40% Peperiksaan Akhir / <i>Final Examination</i> : 60%



Jadual Pengajaran / Teaching Schedule

Minggu Week	Topik & Aktiviti Topic & Activities	Rujukan References
1	Prinsip-prinsip komunikasi digital <i>Digital communication principles</i>	Rujukan utama <i>main references</i>
2	Perambatan Radio <i>Radio propagation</i>	Rujukan utama <i>main references</i>
3	Kelunturan berskala besar dan kecil (1) <i>Large and small scale fading (1)</i>	Rujukan utama <i>main references</i>
4	Kelunturan berskala besar dan kecil (2) <i>Large and small scale fading (2)</i>	Rujukan utama <i>main references</i>
5	Kapasiti salauran tanpa wayar <i>Capacity of wireless channel</i>	Rujukan utama <i>main references</i>
6	Modulasi digital dan penyahmodulatan (1) <i>Digital modulation and demodulation (1)</i>	Rujukan utama <i>main references</i>
7	Modulasi digital dan penyahmodulatan (2) <i>Digital modulation and demodulation (2)</i>	Rujukan utama <i>main references</i>
8	Mitigasi Saluran (1) <i>Channel mitigation (1)</i>	Rujukan utama <i>main references</i>
9	Mitigasi Saluran (2) <i>Channel mitigation (2)</i>	Rujukan utama <i>main references</i>
10	Sistem MIMO <i>Multiple input multiple output (MIMO) System</i>	Rujukan utama <i>main references</i>
11	Sistem Pembawa Pelbagai dan OFDM (1) <i>Multicarrier Systems and OFDM (1)</i>	Rujukan utama <i>main references</i>
12	Sistem Pembawa Pelbagai dan OFDM (2) <i>Multicarrier Systems and OFDM (2)</i>	Rujukan utama <i>main references</i>
13	Sistem pelbagai pengguna <i>Multiuser Systems</i>	Rujukan utama <i>main references</i>
14	Teknologi masa depan: MIMO besar dan gelombang millimeter. <i>Future technologies: Massive MIMO and Millimeterwave</i>	Kertas Kerja Terkini <i>Journal References</i>