



Sesi Akademik <i>Academic Session</i>	2020/2021
Semester/Penggal <i>Semester/Term</i>	2
Kod Kursus <i>Course Code</i>	KIE4016
Tajuk Kursus <i>Course Title</i>	Antena dan Perambatan <i>Antenna and Propagation</i>
Bahasa Pengantar <i>Medium of Instruction</i>	Bahasa Inggeris <i>English</i>
Rujukan Utama <i>Main Reference</i>	1. John D. Krauss and Ronald J. Marhefka, "Antennas For All Applications", McGraw- Hill, 5 th edition, 2017. 2. Constantine A. Balanis, "Antenna Theory: Analysis and Design", Wiley, 2015.
Strategi Pembelajaran <i>Learning Strategies</i>	Kuliah dan Tutorial <i>Lectures and Tutorials</i>
Masa Pembelajaran Pelajar <i>Student Learning Time</i>	Bersemuka / <i>Face to face</i> : 31 jam/ <i>hours</i> Tidak Bersemuka / <i>Non Face to face</i> : 0 jam/ <i>hour</i> Masa Persediaan Pelajar / <i>Student Preparation Time</i> : 49 jam/ <i>hours</i>
Kemahiran Boleh Pindah <i>Transferable Skills</i>	-
Pensyarah / <i>Lecturer</i> Bilik / <i>Room</i> Telefon/e-mel <i>Telephone/e-mail</i>	Dr Tarik Abd Latef Bilik 20, Tingkat 2 03 – 7967 7022 (2660) / tariqlatef@um.edu.my
Sesi Kuliah / <i>Lecture Session:</i> Hari/Masa / <i>Day/Time</i> Tempat / <i>Venue</i>	Rujuk kepada myum.um.edu.my. <i>Refer to myum.um.edu.my.</i>
Sesi Tutorial/Amali: <i>Tutorial/Practical Session:</i> Hari/Masa / <i>Day/Time</i> Tempat / <i>Venue</i>	Rujuk kepada myum.um.edu.my. <i>Refer to myum.um.edu.my.</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	Gambaran keseluruhan bagi gelombang satah seragam <i>Overview of uniform plane waves</i>	Nota kuliah <i>Lecture Notes</i>
2	Perambatan gelombang satah dan hukum-hukum yang mengawalinya <i>Plane wave propagation and laws that governs it</i>	Nota kuliah <i>Lecture Notes</i>
3	Perambatan gelombang dan parameter-parameter antena (corak, kawasan alur, kecekapan alur) <i>Propagation of waves and antenna parameters(patterns, beam area, beam efficiency)</i>	Nota kuliah <i>Lecture Notes</i>
4	Parameter-parameter antena (keterarahan, gandaan dan resolusi, apertur, ketinggian berkesan) <i>Antenna parameters (directivity, gain and resolution, aperture, effective height)</i>	Nota kuliah <i>Lecture Notes</i>
5	Punca titik dan medan <i>Point sources and their field</i>	Nota kuliah <i>Lecture Notes</i>
6	Kuasa dan corak fasa <i>Power and phase patterns</i>	Nota kuliah <i>Lecture Notes</i>
7	Medan bagi dwikutub pendek <i>The fields of a short dipoles</i>	Nota kuliah <i>Lecture Notes</i>
8	Ujian. Rintangan sinaran dan kecekapan dwikutub pendek <i>Test. Radiation resistance and efficiency of short dipoles</i>	Nota kuliah <i>Lecture Notes</i>
9	Antena nipis linear <i>The thin linear antenna</i>	Nota kuliah <i>Lecture Notes</i>
10	Analisa corak medan bagi antena gelung membulat <i>Field patterns analysis of circular loop antennas</i>	Nota kuliah <i>Lecture Notes</i>
11	Rintangan sinaran, keterarahan dan kecekapan gegelung <i>Radiation resistance, directivity and efficiency of loops</i>	Nota kuliah <i>Lecture Notes</i>
12	Tatasusunan linear seragam <i>Uniform linear arrays</i>	Nota kuliah <i>Lecture Notes</i>
13	Konsep asas pengukuran antena <i>Basic concept of antenna measurements</i>	Nota kuliah <i>Lecture Notes</i>
14	Julat pengukuran antena <i>Measurement ranges of antenna</i>	Nota kuliah <i>Lecture Notes</i>