

Sesi Akademik <i>Academic Session</i>	2020/2021
Semester/Penggal <i>Semester/Term</i>	1
Kod Kursus <i>Course Code</i>	KIE3004
Tajuk Kursus <i>Course Title</i>	Elektromagnet Gunaan <i>Applied Electromagnetics</i>
Bahasa Pengantar <i>Medium of Instruction</i>	Bahasa Inggeris <i>English</i>
Rujukan Utama <i>Main Reference</i>	1. David K. Cheng, " <i>Fundamental of Engineering Electromagnetics</i> ", Addison Wesley, 1993. 2. William H. Hyatt, " <i>Engineering Electromagnetics</i> ", McGraw-Hill, 1958.
Strategi Pembelajaran <i>Learning Strategies</i>	Kuliah, Tutorial, Pembelajaran Sendiri <i>Lectures, Tutorials, Independent learning</i>
Masa Pembelajaran Pelajar <i>Student Learning Time</i>	Bersemuka / <i>Face to face</i> : 45 jam/hours Tidak Bersemuka / <i>Non Face to face</i> : 0 jam/hour Masa Persediaan Pelajar / <i>Student Preparation Time</i> : 75 jam/hours
Kemahiran Boleh Pindah <i>Transferable Skills</i>	Problem solving skills, analytical skills
Pensyarah / <i>Lecturer</i>	Dr. Tengku Faiz
Bilik / <i>Room</i>	Bilik 8, Tingkat 1
Telefon/e-mel <i>Telephone/e-mail</i>	03-79675326 / tengkufaiz@um.edu.my
Sesi Kuliah / <i>Lecture Session:</i>	Rujuk kepada myum.um.edu.my.
Hari/Masa / <i>Day/Time</i>	<i>Refer to myum.um.edu.my.</i>
Tempat / <i>Venue</i>	
Sesi Tutorial/Amali: <i>Tutorial/Practical Session:</i>	Rujuk kepada myum.um.edu.my.
Hari/Masa / <i>Day/Time</i>	<i>Refer to myum.um.edu.my.</i>
Tempat / <i>Venue</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	Latar belakang elektromagnetism secara umum dan aplikasinya <i>Overview of electromagnetism in general and its applications</i>	Rujuk rujukan utama [1,2] <i>See main references [1,2]</i>
2	Hukum Faraday dan aplikasinya <i>Faraday's law and its application</i>	Seperti di atas <i>As the above</i>
3	Persamaan Maxwell <i>Maxwell's equations</i>	Seperti di atas <i>As the above</i>
4	Persamaan penyelesaian gelombang Gelombang satah dalam medium tiada kehilangan dan berkehilangan <i>Solution of wave equations. Plane waves in lossless and lossy medium</i>	Seperti di atas <i>As the above</i>
5	Tuju normal gelombang satah <i>Normal incidence of plane waves</i>	Seperti di atas <i>As the above</i>
6	Tuju serong gelombang satah pada sempadan satah <i>Oblique incidence of plane waves at plane boundaries</i>	Seperti di atas <i>As the above</i>
7	Polarisasi gelombang satah <i>Polarization of plane waves</i>	Seperti di atas <i>As the above</i>
8	Ujian, persamaan talian penghantaran <i>Test, Transmission line equations</i>	Seperti di atas <i>As the above</i>
9	Parameter talian penghantaran <i>Transmission line parameters</i>	Seperti di atas <i>As the above</i>
10	Ciri-ciri gelombang di talian penghantaran, carta Smith <i>Wave characteristics of transmission line, The smith chart</i>	Seperti di atas <i>As the above</i>
11	Sifat-sifat gelombang melalui struktur panduan seragam <i>Wave behaviour along uniform guiding structures</i>	Seperti di atas <i>As the above</i>
12	Pandugelombang segiempat tepat Jenis-jenis lain pandu-gelombang <i>Rectangular waveguides Other waveguide types</i>	Seperti di atas <i>As the above</i>
13	Dwikutud elemen Corak antenna <i>The elemental dipole Antenna patterns and directivity</i>	Seperti di atas <i>As the above</i>
14	Tatasusunan antenna, luas efektif dan keratan rentas serak balik <i>Antenna arrays, Effective area and backscatter cross section</i>	Seperti di atas <i>As the above</i>