SYLLABUS
(RENCANA PEMBELAJARAN SEMESTER)

Course Code (Kode Matakuliah) : TIF307	Course Name (Nama Matakuliah): Wireless Communication (Komunikasi Nirkabel)		
Study Program (Program Studi) : Informatika (Informatics)	Faculty (Fakultas) : Engineering and Computer Science (Teknik dan Ilmu Komputer)		
Course Prerequisite (Matakuliah Prasyarat) :	Credit (Kredit) : 3 SKS		
	Lecture (Kuliah) : 3	Tutorial :	Practicum (Praktikum):
Revision Status (Status Revisi):	Even Semester (Semester Genap) Academic Year 2023/2024 (TA 2023/2024)		
Lecturer's name: Iwan Adhicandra			

Dipersiapkan oleh (Prepared by):	Disahkan oleh (Certified by) :
Nama (Name) : Iwan Adhicandra Jabatan (Position): Dosen Tetap Tanggal (Date) : 01/03/2024	Nama (Name) : Jabatan (Position): Tanggal (Date) :
Iwan Adhicandra	**Iwan Adhicandra**

COURSE DESCRIPTION
Deskripsi Matakuliah

This course guides the student to study wireless and mobile communications ranging from the introduction, challenges or problems encountered and the methods used to overcome interference. Topics covered include Path loss and multipath, channel capacity, digital modulation and detection review, Fading, Diversity, Coding, equalization, multicarrier, multi user, Spread Spectrum, and cellular systems.

COURSE OBJECTIVES
Sasaran Kompetensi Lulusan yang Dibebankan Pada Matakuliah

By the end of this course, students should be able to:
Understand the topic of wireless communications and mobile communications, ranging from basic principles, methods to cope with communication disorders and development of wireless technology.

METHODS OF INSTRUCTION
Metode Pembelajaran

The lecturer may use lectures, questions and computer lab exercises from the textbook in the Power Point presentations and the interactive discussions whether through face-to-face conventional way or through on-line course management system.

ATTENDANCE REQUIREMENT
Syarat Kehadiran

Punctuality and regular attendance in classes is of prime importance for successful completion of this course. Students will be expected to arrive for class on time and to remain in class until the end of the class session. Students should attend at least 80% of thescheduled lectures and labs to be able to take the Final test.

ASSESSMENT
Penilaian dan Pembobotannya

Class review questions to be completed in the class or as homework. Dictionaries, spellcheckers, and other methods of checking are encouraged. Lab exercises to be completed in the class or as homework.

Class Review Questions. These include short answers (S.A.) and algorithm workbenches (A.W.) to provide feedback of the students' understanding topic by topic.
Mid-Test and Final-Test. These written tests will evaluate the students' level of knowledge and skills on this course.

Summary of the grading:

Final test	40%
Mid-test	30%
Assignment	30%
Total	100%

MATERIAL REFERENCES AND REQUIRED SUPPLIES
Daftar Referensi yang Digunakan

[1] Stalling, W, "Wireless Communications & Networking", Prentice Hall, 2nd Ed, 2005

COURSE OUTLINE

This section should show the targeted competencies, topics, sub-topics, specific method of instruction/ delivery, material references, and assessment indicators **for each session**.

Session (Sesi)	Targeted Competencies (Kemampuan Akhir)	Topic & Sub-topics (Materi Pembelajaran)	Forms of Instruction & Duration (Bentuk & Waktu Pembelajaran)	Material References (Sumber Pembelajaran)	Assessment Indicators (Indikator Penilaian)
1		Transmission Fundamentals		[1] Chapter 2	
2		Communication Networks		[1] Chapter 3	
3		Protocols and TCP/IP Suite		[1] Chapter 4	
4		Antennas and Propagation		[1] Chapter 5	
5		Signal Encoding Techniques		[1] Chapter 6	
6		Spread Spectrum		[1] Chapter 7	
7		Coding and Error Control		[1] Chapter 8	**Homework 1**
<td colspan="5" align="center">**MID-SEMESTER EXAMINATION**</td>
8		Satellite Communications		[1] Chapter 9	
9		Cellular Wireless Networks		[1] Chapter 10	
10		Cordless Systems and Wireless Local Loop		[1] Chapter 11	
11		Mobile IP and Wireless Access Protocol		[1] Chapter 12	
12		Wireless LAN Technology		[1] Chapter 13	
13		Wi-Fi and IEEE 802.11 Wireless LAN Standard		[1] Chapter 14	
14		Bluetooth and IEEE 802.15		[1] Chapter 15	**Homework 2**
<td colspan="5" align="center">**FINAL EXAMINATION**</td>