<table>
<tr><td colspan="2">Course Code (Kode Matakuliah) :
TIF358</td><td colspan="3">Course Name (Nama Matakuliah):
Network Management / Manajemen Jaringan</td></tr>
<tr><td colspan="2">Study Program (Program Studi) :
Informatics (Informatika)</td><td colspan="3">Faculty (Fakultas) :
Engineering and Computer Science (Teknik dan Ilmu Komputer)</td></tr>
<tr><td colspan="2" rowspan="2">Course Prerequisite (Matakuliah Prasyarat) :</td><td colspan="3">Credit (Kredit) :
3 SKS</td></tr>
<tr><td>Lecture
(Kuliah) :
3 SKS</td><td>Tutorial :</td><td>Practicum
(Praktikum):</td></tr>
<tr><td colspan="2">Revision Status (Status Revisi):</td><td colspan="3">Even Semester (Semester Genap)
Academic Year 2021/2022 (TA 2021/2022)</td></tr>
<tr><td colspan="5">Lecturer's name:
Iwan Adhicandra</td></tr>
<tr><td colspan="2">Dipersiapkan oleh (Prepared by):
Nama (Name) : Iwan Adhicandra
Jabatan (Position) : Lecturer
Tanggal (Date) : 21/02/2022
 
(Iwan Adhicandra)</td><td colspan="3">Disahkan oleh (Certified by) :
Nama (Name) : Hoga Saragih
Jabatan (Position): Head of Department
Tanggal (Date) :

( )</td></tr>
</table>

COURSE DESCRIPTION

This module provides an exploration of the tools, techniques, issues and problems arising from the development of computer networks, and the requirement to manage them. The module considers the range of network management tasks from initial planning through to the security and operational aspects of network usage. Throughout, the emphasis is on the use of the methods considered, with each aspect of the system being placed in a realistic context. The module content is presented as detailed below, with lectures being used as a way of further exploring topics covered by reading and laboratory work.

COURSE OBJECTIVES

By the end of this course, students should be able to:

- describe the concept of behavior of a network system from the viewpoint of a user.
- discuss the operational requirements arising from the demands of users.
- evaluate the impact of a range of application types on a communications system.
- determine the effectiveness of various communications mechanisms and protocols in handling that impact.
- recognise the need for management in a networking environment, and understand how that need may be met.
- select suitable information collection methodologies to allow the behaviour of a network to be controlled.
- apply simulation techniques to the prediction of the behavior of a network.

METHODS OF INSTRUCTIONS

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

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 the scheduled lectures and labs to be able to take the Final test.

ASSESSMENT

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%

MATERIAL REFERENCES AND REQUIRED SUPPLIES

Textbooks [T]:

[T1] Subramanian, Mani (2000), Network Management Principles and Practice, Addison Wesley.

COURSE OUTLINE

Session	Topic & Sub-topics	Methods of delivery	Material references	Assignment
L-1	Data Communications and Network Management Overview		**[T1],** Chap1	
L-2	Review of Computer Network Technology		**[T1],** Chap 2	
L-3	Basic Foundations: Standards, Models, and Language		**[T1],** Chap 3	
L-4	SNMPv1 Network Management: Organization and Information Models		**[T1],** Chap 4	
L-5	SNMPv1 Network Management: Communication and Functional Models		**[T1],** Chap 5	
L-6	SNMP Management: SNMPv2		**[T1],** Chap 6	
L-7	SNMP Management: SNMPv3		**[T1],** Chap 7	
	MID SEMESTER TEST			
L-8	SNMP Management: RMON		**[T1],** Chap 8	
L-9	Broadband Network Management		**[T1],** Chap 10	
L-10	Telecommunications Management Network		**[T1],** Chap 11	
L-11	Network Management Tools and Systems		**[T1],** Chap 12	
L-12	Network Management Applications		**[T1],** Chap 13	
L-13	Web-Based Management		**[T1],** Chap 14	
L-14	Review			
	FINAL SEMESTER TEST			