

**Course Syllabus**  
**Southeast Missouri State University**

**Department of Industrial Technology**

**Course No:** ET- 370

**Title of Course:** Computer Peripherals, Networking  
and Routers

**Revision:** Fall 1999

**Instructors:**

Dr. Raj Desai and Dr. Athula Kulatunga

Offices: Serena 307A and Serena 303

Office Phones: (573) 651 - 2655 and (573) 651 - 2658

e-mails: rdesai@semovm.semo.edu and

akulatunga@semovm.semo.edu

**I. Catalog Description and Credit Hours of Course:**

This course will focus on the OSI networking model, network topologies, IP addressing, subnet masks, basic network design, beginning router configurations, routing protocols, and introduction to LAN switching. The students will also study of the installation, maintenance, and repair of computer peripherals and system expansion, including DOS, memory, disk drives, printers, displays, and pointing devices. 3 credit hours (2 hours lecture + 2 hours lab per week)

**II. Prerequisite:** Basic Computer Literacy: Windows, DOS etc.

**III. Purposes of the Course:**

Upon completion of this course, the students should be able to:

- A. Install DOS and Windows and modify as needed.
- B. Perform initial system configuration.
- C. Install and configure system expansion such as memory.
- D. Install and configure system peripherals.
- E. diagnose and troubleshoot mechanical and electrical printer problems.
- F. Describe the 7 layers of the OSI reference model.
- G. Identify the reasons why industry uses a layered model.
- H. Define and describe the function of IP and MAC addresses.
- I. Configure router elements.
- J. Configure IP addresses.

#### IV. Expectations of Students:

- A. Students will be expected to attend class regularly and be responsible for all information presented in class.
- B. Students will be expected to participate and contribute to the class as appropriate.
- C. Students will be expected to perform satisfactorily on all written/lab assignments. (No credit for late work and no handwritten assignments).
- D. Students will be expected to take all examinations on assigned dates.
- E. Students taking this course for graduate credit will have additional work assigned to them by the instructor.

V.	Course Content:	Weeks
A.	System identification, Testing components, Block Diagrams, Initial Troubleshooting	1
B.	Power Supplies, Surge Suppressers, Uninterruptible Power Supplies, Basic Troubleshooting.	2
C.	Motherboards, Microprocessors, System identification, CMOS and batteries, Basic Troubleshooting	3-4
D.	Memory, Keyboards, Monitors, Floppy Drives, Hard Drives, Peripherals. Basic Troubleshooting	5-6
E.	DOS and Windows, Installation, Configuration, Basic Troubleshooting, Computer Problems and Repairs.	7-8
	<b>MIDTERM</b>	
F.	Networking Fundamentals Lessons 1-15	9
G.	Hardware required to operate a LAN Lessons 16-30	10
H.	Data transmission on a Network Lessons 31-45	11
I.	Managing the network Lessons 45 -65	12
J.	Router configurations and LAN switching Semester 2 Lessons 1-14	13-16
	<b>FINAL</b>	

#### VI. Textbook:

Beeson, Assembling and Repairing Personal Computers, Prentice Hall, 1997 and CISCO Networking Curriculum on the Web.

**Reference Material:** Chellis, Perkins and Strebe. MCSE: Networking Essentials Study Guide, Sybex. ISBN: 0-7821-1971-9

**VII. Basis for Student Evaluations:**

A.	Written Exams (Midterm 25%, Final 25%)	50%
B.	Lab Assignments	30%
C.	Presentations	20%

Letter grades will be based on the following criteria:

90 - 100%	=	A
80 - 89%	=	B
70 - 79%	=	C
60 - 69%	=	D
Below 60%	=	F

(Items in syllabus subject to change at discretion of Instructor)

**VIII. Lab Fees:** There is a \$10.00 lab fee for this course to cover the cost of lab consumable such as wires, connectors, etc.

**IX. Disabilities Statements:** If you have special needs addressed by the Americans with Disabilities Act and need course materials in an alternative format, notify the course instructor immediately. Reasonable efforts will be made to accommodate your special needs.