Southeast Missouri State University

Department: Industrial and Engineering Technology
Course No.: TN565
Title of Course: Network Management
Revision: New

Catalog Description and Credit Hours of Course:

Design, performance analysis, monitoring, optimization, and troubleshooting of modern data communication networks. Topics include managing TCP/IP networks using SNMP, protocol analysis, remote management, and performance improvement. Two hours lecture and two hours lab. (3 Credit Hours)

Prerequisite: TN563

III. Purposes or Objectives of the Course:
A. Develop an understanding of the fundamental concepts and components of network management.
B. Develop knowledge of SNMP Internet network management architecture.
C. Understand Management Information Bases (MIB) and learn to collect and track inventory data from the network devices.
D. Use SNMP and other tools to monitor and troubleshoot network functionality, manage network faults, and improve network performance.

IV. Expectations of Students:
A. Students are expected to attend all classes. If unable to attend a class, students are required to inform the instructor before the missed class date.
B. Students are responsible for all class notes and reading of the assigned materials. The majority of reading assignments will come from the textbook and handouts.
C. Students are responsible for taking all quizzes and examinations on assigned dates. Late submission without permission from the instructor may be rejected or granted partial credit.
D. Cellular phones and other electronic devices shall not be used during class periods. Phones are to be turned off or silenced during class.
E. Students are to be respectful to other students.

V. Course content or Outline

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<th>Content</th>
<th>Hrs</th>
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<tr>
<td>A. Network Management Overview</td>
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<td>B. SNMP Version 1</td>
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<td>C. SNMP Version 2</td>
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<td>D. SNMP Version 3</td>
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<td>E. Mid-term Exam</td>
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<td>F. MIBs</td>
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<td>G. Performance and Troubleshooting</td>
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<td>H. Fault Management</td>
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<td>I. Network Management &amp; Performance Improvement</td>
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<td>J. Final Exam</td>
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VI. Textbook(s) and/or Other Required Materials or Equipment:

VII. Basis for Student Evaluation:
Grading will consist of the following criteria and percentages:

Undergraduate Students:
A. Homework & Quizzes 30%
B. Mid Term Exam 20%
C. Final Exam 20%
D. Laboratory Projects & Class Participation 30%

Graduate Students:
A. Homework & Quizzes 20%
B. Mid Term Exam 15%
C. Final Exam 15%
D. Laboratory Projects & Class Participation 30%
E. Graduate Research Project & Presentation 20%

VIII. Grading Scale:

Undergraduate:                   Graduate:
A = 100 – 90%                          A = 100 – 90%
B = 89 – 80%                            B = 89 – 80%
C = 79 – 70%                            C = 79 – 70%
D = 69 – 60%                            F = Below 70%
F = Below 60%

The weight of the evaluation criteria may vary according to each instructor and will be communicated at the beginning of the course.

IX. Academic Policy Statement:
Students will be expected to abide by the University Policy for Academic Honesty regarding plagiarism and academic honesty. Refer to:
http://www6.semo.edu/judaffairs/code.html

X. Student with Disabilities Statement:
If a student has a special need addressed by the Americans with Disabilities Act (ADA) and requires materials in an alternative format, please notify the instructor at the beginning of the course. Reasonable efforts will be made to accommodate special needs.