CIT 406. ADVANCED NETWORK TROUBLESHOOTING (Cisco #8).

Credit Hours: 5

Scheduled hours per week
Lecture: 4
Lab: 2
Other: 0

Catalog Course Description: This course is the third of three required to prepare the student for a career in networking and the Cisco CCNP certification. Topics covered include network maintenance tasks, troubleshooting models, troubleshooting tools, and troubleshooting of specific network technologies.

Pre-requisites: Grade of “C” or better in CIT 206

Co-requisites: N/A

Course Learning Outcomes:
- Demonstrate ability to implement systematic troubleshooting methods
- Describe and discuss various issues that can lead to networking problems
- Describe, discuss, and demonstrate ability to use management and diagnostic tools
- Describe and discuss routing and switching processes and their importance in troubleshooting

Topics to be studied:
- Troubleshooting Methods
- Structured Troubleshooting
- Network Maintenance Tasks and Best Practices
- Basic Switching and Routing Process
- Effective IOS Troubleshooting Commands
- Specialized Maintenance and Troubleshooting Tools

Relationship of Course to Program or Discipline Learning Outcomes:

| Ability to understand, plan, and execute good Project Management | X |
| Ability to recognize and apply industry recognized code of ethics to various situations | |
| Ability to understand and apply Information Security concepts and best practices | X |
| Ability to plan, implement, and troubleshoot Advanced Routing and Switching technologies | |
| Ability to plan, implement, and troubleshoot Advanced Systems Administration technologies | |
| Ability to plan, implement, and troubleshoot Advanced Security Systems | X |

Relationship of Course to General Education Learning Outcomes:

| Composition and Rhetoric Students illustrate a fundamental understanding of the best practices of communicating in English and meet the writing standards of their college or program-based communication requirements. | X |
| Science & Technology Students successfully apply systematic methods of analysis to the natural and physical world, understand scientific knowledge as empirical, and refer to data as a basis for conclusions. | X |
| Mathematics & Quantitative Skills Students effectively use quantitative techniques and the practical application of numerical, symbolic, or spatial concepts. | |
| Society, Diversity, & Connections Students demonstrate understanding of and a logical ability to successfully analyze human behavior, societal and political organization, or communication. | X |
### Human Inquiry & the Past
Students interpret historical events or philosophical perspectives by identifying patterns, applying analytical reasoning, employing methods of critical inquiry, or expanding problem-solving skills.

### The Arts & Creativity
Students successfully articulate and apply methods and principles of critical and creative inquiry to the production or analysis of works of art.

**5/3/2016**

**Special requirements of the course:**

N/A

**Additional information:**

N/A

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