COURSE TITLE: Field Service Technician  
COURSE NUMBER: EEV 0506V

COURSE DESCRIPTION (with prerequisites):
The student will be able to define interface standards, use file systems on a server, identify networking levels and protocols and troubleshoot network systems, demonstrate knowledge of communication test equipment, cable and LAN topology, hubs, switches and routers. Prerequisite: EEV 0502V. 300 Clock Hours.

NAME(S) OF INSTRUCTORS:
Dean Giles, Workforce Development Building “O”, Room 102A, Gilesd@chipola.edu, (850) 718-2392, B.S. degree Electrical Engineering & CompTia Network+ Certified. Lab and office hours are posted in the display case outside the computer lab.

EFFECTIVE ACADEMIC YEAR:
2011-12

REQUIRED TEXTBOOKS AND INSTRUCTIONAL SUPPLIES:

REQUIRED MATERIALS
1 Black Sharpie marker.
1 Pkg. of blue ball point pens.
1 Spiral Bound Notebook.
1 three ring binder with 1 inch spine.
1 pair of headphones
1 Chipola College Lanyard
1 Chipola College Computer Systems Technology Polo Shirt
2 GB or larger Flash Drive
30 Count spindle of Recordable CD’s

RECOMMENDED EQUIPMENT:
Access to a home PC capable of running the TestOut Computer Based Training software. Please refer to the TestOut website at www.testout.com for specific requirements.
Jensen JTK86 tool kit or equivalent.
**GRADING POLICY:**
The standing of a student in each course is expressed by one of the following letters and corresponding grading system:

- **A** – 90 – 100
- **B** – 80 – 89
- **C** – 70 – 79
- **D** – 60 – 69
- **F** – 59 or less

The Chipola Catalog provides policies and procedures regarding the grading system. A student’s Grade Point Average is derived from the grading system/quality point scale.

**ATTENDANCE AND WITHDRAWAL POLICIES:**
Chipola College expects regular attendance of all students. Students who are absent from classes for any reason other than official college activities must satisfy the instructor concerned that the absence was due to illness or other clearly unavoidable reasons. Otherwise, the student may suffer grade loss at the discretion of the instructor. Chipola policy allows each instructor to specify in the Instructor First Day Handout whether or not an absence is excusable and what affect the absence or tardy may have on the grade.

A student is allowed to repeat a course a maximum of three (3) times. **On the third attempt a student (1) must bear the full cost of instruction (unless waived by Student Services), (2) cannot withdraw, and (3) must receive a grade.**

**MAKE-UP POLICY:**
Chipola allows each instructor to specify in the Instructor First Day Handout the makeup policy.

**ACADEMIC HONOR CODE POLICY:**
Students are expected to uphold the Academic Honor Code. Chipola College’s Honor Code is based on the premise that each student has the responsibility to (1) uphold the highest standards of academic honesty in his/her own work; (2) refuse to tolerate academic dishonesty in the college community; and (3) foster a high sense of honor and social responsibility on the part of students. Further information regarding the Academic Honor Code may be found in the Chipola Catalog, Student Governance section.

**STUDENTS WITH DISABILITIES POLICY:**
Chipola College is committed to making all programs and facilities accessible to anyone with a disability. Chipola’s goal is for students to obtain maximum benefit from their educational experience and to effectively transition into the college environment. Students with disabilities are requested to voluntarily contact the Office of Students with Disabilities to complete the intake process and determine their eligibility for reasonable accommodations.
LIBRARY AND ON-LINE REFERENCE MATERIALS:
The library is a comprehensive learning resource center providing information in print, electronic, and multimedia format to support the educational objectives of the College. On-line catalogs, e-books and electronic databases can be accessed by using the LINCCWeb icon on the Chipola Library website at www.chipola.edu/library. If you have questions about database usage consult the “How to Use the Chipola Databases” on the Library website or call the Library at 850/718-2274 during regular hours. Library hours are posted each semester at the building entrance and on the Library website. See your Instructor First Day Handout for individual instructor recommendations and resources.

TECHNOLOGY RESOURCES:
The Information Technology Center, located in the library, is equipped with computer workstations. Lab hours are posted each semester at the building entrance and on the Library website. The ACE Lab, located in Building L, is available for tutoring and is equipped with computer workstations. Lab hours are posted each semester at the room entrance. The college’s learning management system is Desire 2 Learn (d2l). Classes become available on d2l on the first day of the semester. It is the student’s responsibility to log onto the d2l system the first day of class to establish the first day of attendance and to check announcements. For further information, contact your instructor or the Director of Online Learning.

ELECTRONIC DEVICE USAGE:
All electronic devices such as cell phones, beepers, pagers, and related devices are to be silenced prior to entering classrooms and/or laboratories to avoid disruption. Should it become necessary for a student to leave his/her “device” on to send or receive an emergency call and/or text message, the student must inform the instructor prior to class. If the student finds it necessary to send and/or receive an emergency call and/or text message during class/lab time, he/she is instructed to take all books and belongings and step outside the classroom to deal with the situation. To minimize classroom disruption and the distraction to classmates, the student will not be permitted to reenter the classroom during that class period. Any time a test is being administered, all such devices must be turned off and put away. If a device is seen or heard during an exam, a score of zero will be given for that exam. Initial and repeated infractions may result in disciplinary action.

DISCIPLINE SPECIFIC COMPETENCIES / LEARNING OUTCOMES:
Computer Systems Technology focuses on broad, transferable skills and stresses understanding and demonstration of the following elements of the information technology industry:
Demonstrate proficiency in network fundamentals
Demonstrate proficiency in network equipment and physical site requirements and considerations.
## COURSE-LEVEL STUDENT LEARNING OUTCOMES FOR EEV 0506V

<table>
<thead>
<tr>
<th>COURSE-LEVEL STUDENT LEARNING OUTCOMES FOR EEV 0506V</th>
<th>DISCIPLINE-SPECIFIC GENERAL EDUCATION COMPETENCIES</th>
<th>ASSESSMENT METHODS FOR COURSE LEVEL STUDENT LEARNING OUTCOMES</th>
<th>LEARNING ARTIFACTS FOR AA PROGRAM ASSESSMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demonstrate Proficiency In Network Fundamentals--The student will be able to: Install, connect and maintain network clients and peripherals to various network operating systems. Demonstrate use of file systems commands and utilities on a network server. Demonstrate setup configuring and sharing of user security, file, printer and network resources. Demonstrate setup configuring and troubleshooting network applications on the server. Demonstrate setup configuring and troubleshoot backup operation on server/clients. Demonstrate proficiency in performing help desk support for a network environment. Connect, configure, and troubleshoot devices for network connectivity. Perform basic network system maintenance. Describe use and system maintenance of a LAN, WAN and telecommunications system. Perform procedures related to administration of a secure network. Demonstrate knowledge of the Internet/Intranet/Extranet system. Demonstrate proficiency installing, configuring and troubleshooting network protocols. Demonstrate knowledge of telecommunications services and standards. Install, configure and troubleshoot browsers software. Demonstrate Proficiency In Network</td>
<td>NS1 This course is not a General Education core course. It is a Workforce Certificate Program for Computer Systems Technology.</td>
<td>T, Q, F, SP, SD, Proj, SK, Check</td>
<td>T, F</td>
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</tbody>
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This course is not a General Education core course. It is a Workforce Certificate Program for Computer Systems Technology.
Equipment And Physical Site Requirements And Considerations--The student will be able to:
Demonstrate knowledge of data communication test equipment.
Demonstrate knowledge of telecommunication wiring systems.
Demonstrate knowledge of cable and LAN topology.
Demonstrate knowledge of broadband devices, hubs, switches and routers.
Calculate and determine UPS requirements for an PC/network environment.
Determine adequate and protected AC requirements for PC/LANs.
Calculate and determine physical requirements of a networking environment.
Install, configure and troubleshoot LAN cable systems (twisted pair, coax, or fiber).
Configure and troubleshoot patch bay and network equipment.

**Assessment Codes**

<table>
<thead>
<tr>
<th>T</th>
<th>Tests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre/Post</td>
<td>Pre- and Post-Tests</td>
</tr>
<tr>
<td>OT</td>
<td>Objective Tests</td>
</tr>
<tr>
<td>UT</td>
<td>Unit Tests</td>
</tr>
<tr>
<td>Q</td>
<td>Quizzes</td>
</tr>
<tr>
<td>F</td>
<td>Final Examination</td>
</tr>
<tr>
<td>CF</td>
<td>Cumulative Final</td>
</tr>
<tr>
<td>EX</td>
<td>Departmental Exam</td>
</tr>
<tr>
<td>SE</td>
<td>Nat'l or State Standardized Exam</td>
</tr>
<tr>
<td>RPT</td>
<td>Report/Presentation</td>
</tr>
<tr>
<td>SP</td>
<td>Skills Performance</td>
</tr>
<tr>
<td>SD</td>
<td>Skills Demonstration</td>
</tr>
<tr>
<td>W</td>
<td>Writing Assignments</td>
</tr>
<tr>
<td>E</td>
<td>Essays</td>
</tr>
<tr>
<td>DE</td>
<td>Documented Essays</td>
</tr>
<tr>
<td>RP</td>
<td>Research papers</td>
</tr>
<tr>
<td>J</td>
<td>Jury</td>
</tr>
<tr>
<td>R</td>
<td>Recital</td>
</tr>
<tr>
<td>Proj.</td>
<td>Projects</td>
</tr>
<tr>
<td>Exp.</td>
<td>Experiments</td>
</tr>
<tr>
<td>Cap. Proj.</td>
<td>Capstone Project</td>
</tr>
<tr>
<td>Cap. Course</td>
<td>Capstone Course</td>
</tr>
<tr>
<td>Prac.</td>
<td>Practicum</td>
</tr>
<tr>
<td>Intern.</td>
<td>Internship</td>
</tr>
<tr>
<td>H</td>
<td>Homework</td>
</tr>
<tr>
<td>PS</td>
<td>Problem Solving</td>
</tr>
<tr>
<td>DB</td>
<td>Discussion Board</td>
</tr>
<tr>
<td>BO</td>
<td>Behavioral Observation</td>
</tr>
<tr>
<td>Clin.</td>
<td>Clinicals</td>
</tr>
<tr>
<td>CS</td>
<td>Case Study</td>
</tr>
<tr>
<td>CP</td>
<td>Case Plan</td>
</tr>
<tr>
<td>Port.</td>
<td>Portfolio</td>
</tr>
<tr>
<td>Obs.</td>
<td>Teacher Observation</td>
</tr>
<tr>
<td>Sk. Check</td>
<td>Skills Check-off</td>
</tr>
<tr>
<td>Curriculum Frameworks</td>
<td></td>
</tr>
<tr>
<td>JP</td>
<td>Judged</td>
</tr>
<tr>
<td>Performance/Exhibition</td>
<td></td>
</tr>
</tbody>
</table>

**MEANS OF ACCOMPLISHING STUDENT LEARNING OUTCOMES:**
The course is competency-based and self-paced using handouts, videotapes, textbooks, computer-assisted instruction and instructor demonstrations. While this course is self-paced, students are expected to make regular progress. Use your time wisely.
This course is competency-based. Complete units of instruction and hands-on labs in order. Once completed, proceed to the next unit.
Take notes during lectures and demonstrations. Review lectures and demonstrations as needed to achieve comprehension.
Activities related to the TestOut computer based training are automatically graded and recorded.
For activities that are not related to the TestOut system, please inform the instructor when you have completed projects or need to have skills verified.
CONFERENCES AND ASSISTANCE
Students are welcomed and encouraged to come to my office to talk over any problems they may have in this course. Students needing assistance should contact either the lab assistant or instructors.

LAB STATION EQUIPMENT
The equipment you will use is rugged and reliable. However, with abuse or misuse, it will malfunction and become inoperable. Be careful and have the instructors/lab assistant demonstrate the use of the equipment before using it for the first time. Read all instructions carefully and ask questions prior to use.
Keep your lab area clean and orderly while performing assignments. Return all equipment/lab components to their proper storage area before departing at the end of the day.

SAFETY: REMEMBER!
Practice safety at all times while constructing, analyzing and troubleshooting. If you observe a hazard in the lab areas notify the instructor or lab assistant immediately.
Have the instructor/lab assistant point out locations of the emergency exit doors and fire extinguishers.
If an accident of any type occurs, regardless of how trivial it may seem, notify the instructor or lab assistant immediately.

RETAKE OF COURSE:
This course is subject to updates due to industry requirements. Students will be required to retake courses if acquired credit is five years old or authorization of instructor.

ATTENDANCE:
Individual class hours/days will be arranged with the instructor. You are expected to be on time and attend regularly scheduled lectures and labs. Students are required to clock in and out when arriving and leaving the classroom. NOTE: Failure to attend class will affect your grade and may be detrimental to your student grant/loan. Unexcused absences and work not made up will be considered zeros and averaged in your grade.

CLASS BREAKS:
When students are not on an excused break by the instructor, they are expected to be working on assigned tasks.

STUDENT RESPONSIBILITIES:
Students are expected to understand and follow all school rules and policies. Students are responsible for class, lab, shop and equipment care. Students are responsible for maintaining proper industry work habits and conduct.
Shop cleanup is the responsibility of all students and will be conducted on a weekly basis.
See chart this syllabus.

ASSIGNMENT AND/OR COURSE OUTLINE
Classroom Study
The Classroom Study module consists of activities in the TestOut Network+ computer based training software. This training material is presented in the form of lectures, demonstrations, and fact sheets. Assessment is provided through lab simulation activities and examinations.
Introduction
Networking Basics
Cables and Connectors
Networking Devices
Wired Networking Standards
Wireless Networking Standards
The OSI Model
TCP/IP
IP Services
Operating Systems
Wide Area Networks (WANs)
Network Protection and Availability
Troubleshooting
Preparing to Certify

Recommended Reading
Read the following chapters in the Network+ Guide to Networks book for a greater depth of understanding.
- An Introduction to Networking
- Networking Standards and the OSI Model
- Network Protocols
- Topologies and Access Methods
- WAN’s Internet Access, and Remote Connectivity
- Transmission Basics and Networking Media
- Networking Hardware
- Implementing and Managing Networks

ASSESSMENT OF OUTCOMES
Each competency chapter has a number of lab exercises and exams. You are required to master all lab exercises. Lab exercises are graded as pass/fail. If you fail to achieve a pass grade on a lab exercise, you may re-study and re-attempt the exercise as many times as required to achieve a pass grade. TestOut allows you to retake competency exams. You will be graded on the highest scoring attempt. Do not start an exam until you are sure that you are ready. When all chapter labs are passed with 100% and all exams are passed with 80%, you may move on to the next chapter.
All chapter labs and exams should be studied thoroughly as there will be 4 midterm examinations based on the labs and exams of each chapter. You will only be able to take a midterm examination once.
There will also be a comprehensive final examination at the end of the course. This will include any of the labs or exam questions from the course. You will only be able to take the final exam once.
Simulated certification exams may be taken as many times as necessary to achieve proficiency. Your ultimate goal should be to sit for the certification exam. To be considered eligible for certification, you must achieve 3 consecutive scores of 95% or higher on the simulated certification exam. When this level is attained, you should schedule a certification exam.
Final grade will be determined according to the following:

20% Lab exercises - completed labs (100%) / total labs
20% Competency Exams - completed exams (80%) / total exams
20% Midterm Exams
20% Final Exam
20% Participation

See your Instructor First Day Handout for individual instructor assignment schedule.