

LAST REVIEW:

(i.e. 2003-2004)

NEXT REVIEW: 2014-2015

(i.e. 2008-2009)

STATUS: A

(A, I, D)

COURSE TITLE: Cisco CCNP III – Troubleshooting

COMMON COURSE NUMBER: CET2628C

CREDIT HOURS: 4

CONTACT HOUR BREAKDOWN

(per 16 week term)

CLOCK HOURS:

(Voc. Course ONLY)

Lecture: **48** Lab: **16**

Clinic: **0** Other: **0**

PREREQUISITE(S): CET2625C and CET2627C (each with a grade of C or higher)

COREQUISITE(S):

PRE/COREQUISITE(S):

COURSE DESCRIPTION *(750 characters, maximum):*

This course provides students with the knowledge and skills necessary to plan and perform regular maintenance on complex enterprise routed and switched networks and to use technology-based practices and a systematic ITIL-compliant approach to perform network troubleshooting. The skills developed by students completing this course will help prepare them for the Cisco Troubleshoot Exam.

General Education Requirements – Associate of Arts Degree (AA), meets Area(s): Area

General Education Requirements – Associate in Science Degree (AS), meets Area(s): Area

General Education Requirements – Associate in Applied Science Degree (AAS), meets Area(s): Area

UNIT TITLES

- 1. Maintain and monitor network performance**
- 2. Troubleshoot Multi Protocol system networks**

EVALUATION:

Please provide a brief description (250 characters maximum) that details how students will be evaluated on the course outcomes.

Evaluation instruments will include written and/or skills-based examinations and individual in-class and/or take-home assignments. Evaluation methods may also include group in-class and/or take-home assignments.

Common Course Number: CET2628C

UNITS

Unit 1

General Outcome:

1.0 The student shall: be able to maintain and monitor network performance.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 1.1 Develop a plan to monitor and manage a network**
- 1.2 Perform network monitoring using IOS tools**
- 1.3 Perform routine IOS device maintenance**
- 1.4 Isolate sub-optimal internetwork operation at the correctly defined OSI Model layer**

Common Course Number: CET2628C

Unit 2

General Outcome:

2.0 The student shall: be able to troubleshoot multi protocol system networks.

Specific Measurable Learning Outcomes:

Upon successful completion of this unit, the student shall be able to:

- 2.1 Troubleshoot EIGRP**
- 2.2 Troubleshoot OSPF**
- 2.3 Troubleshoot eBGP**
- 2.4 Troubleshoot routing redistribution solution**
- 2.5 Troubleshoot a DHCP client and server solution**
- 2.6 Troubleshoot NAT**
- 2.7 Troubleshoot first hop redundancy protocols**
- 2.8 Troubleshoot IPv6 routing**
- 2.9 Troubleshoot IPv6 and IPv4 interoperability**
- 2.10 Troubleshoot switch-to-switch connectivity for the VLAN based solution**
- 2.11 Troubleshoot loop prevention for the VLAN based solution**
- 2.12 Troubleshoot Access Ports for the VLAN based solution**
- 2.13 Troubleshoot private VLANS**
- 2.14 Troubleshoot port security**
- 2.15 Troubleshoot general switch security**
- 2.16 Troubleshoot VACL and PACL**
- 2.17 Troubleshoot switch virtual interfaces (SVIs)**
- 2.18 Troubleshoot switch supervisor redundancy**
- 2.19 Troubleshoot switch support of advanced services (i.e., Wireless, VOIP and Video)**
- 2.20 Troubleshoot a VoIP support solution**

- 2.21 Troubleshoot a video support solution**
- 2.22 Troubleshoot Layer 3 Security**
- 2.23 Troubleshoot issues related to ACLs used to secure access to Cisco routers**
- 2.24 Troubleshoot configuration issues related to accessing the AAA server for authentication purposes**
- 2.25 Troubleshoot security issues related to IOS services (i.e.,finger, NTP, HTTP, FTP, RCP etc.)**

NEW