

# Outcomes Mapping

| TECHNOLOGY AND HEALTH DIVISION |  |                               |  |          |           |               |                                   |
|--------------------------------|--|-------------------------------|--|----------|-----------|---------------|-----------------------------------|
| Program:                       | Computers & Networking Technology (AS Degree & Certificates) | # Courses:<br>(if applicable) |  | Updated: | 6/12/2015 | Submitted by: | Kenneth Miller/<br>Jonathan Hymer |

| Institutional Level Outcomes (ILOs): <i>As a result of an educational experience with any aspect of the college, students will develop the following knowledge, skills, abilities, and attitudes:</i> |   |                      |  |  |  |  |                      |   |   |   |
|---|---|----------------------|--|--|--|--|----------------------|---|---|---|
| 1. Communication  |   | 2. Critical Thinking |  | 3. Information and Technology Literacy |  | 4: Personal, Social, Civic, and Environmental Responsibility |                      |   |   |   |
| Connect PLOs with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated following the completion of the program or educational experience. |   |                      |  |  |  |  | PLO to ILO Alignment |   |   |   |
| PLO Name  | PLO Defined: <i>Upon successful completion of this program, students will be able to:</i>   |                      |  |  |  |  | 1                    | 2 | 3 | 4 |
| <b>1. Computers as electronic systems</b>   | Apply knowledge of fundamental electronics principles, including voltage, current, and signal levels, to the analysis and troubleshooting of computers and data-communications networks.  |                      |  |  |  |  |                      | P |   |   |
| <b>2. Component to system focus</b>   | Apply knowledge of computers and their components to the development and implementation of interconnected systems of computers.   |                      |  |  |  |  |                      | P |   |   |
| <b>3. Computer systems</b>  | Apply knowledge of computer technology, with an emphasis on hardware, to the development and deployment of complete computer networks.  |                      |  |  |  |  |                      | P |   |   |
| <b>4. Networks and servers</b>  | Demonstrate an understanding of the physical and logical characteristics needed to support and secure network and server environments.  |                      |  |  |  |  |                      | P |   |   |
| <b>5. Career competencies</b>   | Function effectively as a member of a technical team including documenting work, writing clearly and appropriately in an Information Technology context, respecting user data, and considering the ethical consequences of decisions. |                      |  |  |  |  | P                    |   |   |   |
| <b>6. Certification acquisition skills</b>  | Articulate knowledge of the CompTIA certification processes, including potential exam content, philosophy, and test taking and study strategies.  |                      |  |  |  |  |                      |   |   | P |

See the Outcomes Assessment website for definitions and examples of Mt. SAC's ILOs: <http://www.mtsac.edu/instruction/outcomes/ilos.html>

## Key for Level of Learning

(Use for Mapping SLOs/MOs to PLOs to ILOs)

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)   |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 50   | Connect Outcomes with an <b>I</b> , <b>P</b> , or <b>M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs   | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 50 will demonstrate effective troubleshooting strategies for isolating faults in all major personal computer (PC) subsystems and components. |  | I     |       |       |       |       |       |       |       |        |       | I     |       |       |
| Students in CNET 50 will be able to define common terms and recognize symbols used in PC systems.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET50 will be able to add/remove input and output devices properly on computer systems running current operating systems.                        |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Define common terms and recognize symbols used in PC systems.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Explain circuit operation of various PC circuits.   | I  |       |       |       |       |       |       |       |       |        |       |       |       |       |
| Describe proper troubleshooting strategies of PC circuits.  |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Demonstrate proper and safe test equipment usage on PC circuits.  | I  |       |       |       |       |       |       |       |       |        |       |       |       |       |
| Describe proper preventative maintenance techniques on PCs and peripherals.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Demonstrate computer logic and fault finding skills.  |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)                                  |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|--|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 52  | Connect Outcomes with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs  | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| CNET 52 students will demonstrate the ability to obtain technical information from each Windows operating system.                      |  |       |       |       | I     |       |       |       |       |        |       |       | I     |       |
| Students completing CNET 52 will be able to install Windows operating systems.   |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Identify the operating system's functions, structure, major system files.  |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Navigate the operating system to obtain needed technical information.  |  |       |       |       | I     |       |       |       |       |        |       |       |       |       |
| Identify basic concepts and procedures for creating, viewing and managing files and directories.                                       |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify typical memory conflict problems and methods of optimization.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify procedures for installing and upgrading the various operating systems and bringing the software to a basic operational level. |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Compare and contrast procedures for loading and adding device drivers.   |  | I     |       |       |       |       |       |       |       |        |       | I     |       |       |
| Compare and contrast procedures for configuring, changing options and using the printing subsystem.                                    |  | I     |       |       |       |       |       |       |       |        |       | I     |       |       |
| Recognize and interpret the meaning of error codes relating to startup, printing and utilities.  |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify the networking capabilities of the  |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

|   |  |   |  |  |  |  |  |  |  |  |  |  |  |  |
|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|
| various operating systems and their procedures for connecting to the network.   |  |   |  |  |  |  |  |  |  |  |  |  |  |  |
| Identify concepts and capabilities of open source operating systems.  |  | I |  |  |  |  |  |  |  |  |  |  |  |  |
| Demonstrate the installation, configuration, maintenance, and troubleshooting of the operating systems encountered as PC technicians. |  | I |  |  |  |  |  |  |  |  |  |  |  |  |

Key for Level of Learning  
 (Use for Mapping SLOs/MOs to PLOs to ILOs)  
 I = Knowledge/Skill Introduced  
 P = Knowledge/Skill Practiced/Applied  
 M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)  |   |       |       |       |       |       |       |       |       |        |       |       |       |       |
|--|---|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 54  | Connect Outcomes with an I, P, or M (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs  | PLO 1   | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 54 will be able to identify component-level malfunctions in a typical personal computer.                                  |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET 54 will be able to demonstrate proper use of specific and general-purpose diagnostic aids available to the PC technician. | P   |       |       |       |       |       |       |       |       |        |       |       |       |       |
| Describe and demonstrate the functions of the major components within the PC.  |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Troubleshooting techniques and procedures.   |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Demonstrate specific safety techniques associated with the major PC components.  |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Use specific and general purpose diagnostic aids available to the PC technician and consumer.  |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Manipulate the PC using various operating system commands.   |   |       | P     |       |       |       |       |       |       |        |       |       |       |       |
| Isolate and identify problems and malfunctions at the software and hardware component level.   |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Explain logical procedures for isolating malfunctions.   |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Analyze and identify component level malfunctions for typical PCs.   |   | P     |       |       |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)   |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 56   | Connect Outcomes with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs   | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 56 will be able to identify and distinguish among the different media used in network communications.  |  |       | M     |       |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET 56 will be able to determine the most appropriate standards, protocols, and access methods for a given network.                                  |  |       |       | M     |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET56 will be able to correctly determine an IPv4 address, broadcast address, and network address from a binary IPv4 address and binary subnet mask. |  |       | M     |       |       |       |       |       |       |        |       |       |       |       |
| Identify components of a network and determine the type of network design appropriate for a given site.   |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify and distinguish among the different media used in network communication, and determine how to use them to connect servers and clients in a network.              |  |       | P     |       |       |       |       |       |       |        |       |       |       |       |
| Compare the various networking standards, protocols, and access methods and determine which would be the most appropriate for a given network.                            |  |       | P     |       |       |       |       |       |       |        |       |       |       |       |
| Recognize and identify the primary network architectures and their major characteristics,   |  |       | P     |       |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

|   |  |  |   |  |  |  |  |  |  |  |   |  |  |  |
|---|--|--|---|--|--|--|--|--|--|--|---|--|--|--|
| and the most appropriate for a proposed network.  |  |  |   |  |  |  |  |  |  |  |   |  |  |  |
| Identify the primary functions of a network operating system and distinguish between a centralized computing environment and client/server environment. |  |  | P |  |  |  |  |  |  |  |   |  |  |  |
| Implement and support the major networking components (including the server, operating system, and clients).  |  |  | P |  |  |  |  |  |  |  |   |  |  |  |
| Recommend a system for adequately securing data and protecting the system's components.   |  |  | P |  |  |  |  |  |  |  | P |  |  |  |
| Distinguish between LANs and WANs and identify the components used to expand a LAN into a WAN.  |  |  | P |  |  |  |  |  |  |  |   |  |  |  |
| Plan, lay out, configure, and troubleshoot networks for a specific applications.  |  |  | P |  |  |  |  |  |  |  |   |  |  |  |

Key for Level of Learning  
 (Use for Mapping SLOs/MOs to PLOs to ILOs)  
 I = Knowledge/Skill Introduced  
 P = Knowledge/Skill Practiced/Applied  
 M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)  |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|--|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 58  | Connect Outcomes with an <b>I</b> , <b>P</b> , or <b>M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs  | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET58 will be able to install and configure local and network storage systems including SAN, NAS, RAID, etc., using current technologies. |  |       |       | M     |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET58 will be able to install current network operating systems on both physical and virtual environments.                                |  |       | M     |       |       |       |       |       |       |        |       |       |       |       |
| Describe different types of servers, and identify hardware and software components used in servers.  |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Install servers into both physical and virtual network environments.   |  |       |       | M     |       |       |       |       |       |        |       |       |       |       |
| Describe proper server configuration for optimal performance.  |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Evaluate preventative measures to keep servers running at acceptable performance levels.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Describe upgrade procedures of server hardware and software.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Discuss environmental issues that pertain to server operation.   |  |       | P     |       |       |       |       |       |       |        |       |       |       |       |
| Troubleshoot server hardware and software problems using a flow chart and diagnostic tools.  |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify and explain disaster-recovery concepts and techniques.  |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered



# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)  |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|--|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 60  | Connect Outcomes with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs  | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 60 will be able to analyze types of preventative maintenance products and procedures, and when to use/perform them. | I  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| CNET 60 students will be prepared to take the A+ Certification Exam.   |  |       |       |       |       | P     |       |       |       |        |       |       |       |       |
| Identify the primary hardware components of a computer system including installation, configuration, and upgrading.                          | I  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Describe appropriate troubleshooting procedures and practices.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Analyze the purpose of various types of preventative maintenance products and procedures, and when to use or perform them.                   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify the basic concepts of printers, printer operations, and printer components.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify the unique components of portable computers and their problems.   |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Analyze the basic networking concepts, how a network works, and the ramifications of repairs on a network.                                   |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Compare and contrast the major functions, structure, major systems files and memory management features of legacy and current                |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

|   |  |   |   |  |  |  |  |  |  |  |  |  |  |  |
|---|--|---|---|--|--|--|--|--|--|--|--|--|--|--|
| operating systems.  |  |   |   |  |  |  |  |  |  |  |  |  |  |  |
| Install, configure, upgrade, and troubleshoot legacy and current operating systems to bring the software to an operational level.     |  | I |   |  |  |  |  |  |  |  |  |  |  |  |
| Compare and contrast the networking capabilities of operating systems, including the procedures for connecting to the network.        |  | I |   |  |  |  |  |  |  |  |  |  |  |  |
| Describe the concepts and capabilities relating to the Internet and the basic procedures for setting up a system for Internet access. |  |   | I |  |  |  |  |  |  |  |  |  |  |  |

Key for Level of Learning  
 (Use for Mapping SLOs/MOs to PLOs to ILOs)  
 I = Knowledge/Skill Introduced  
 P = Knowledge/Skill Practiced/Applied  
 M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)                          |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|--|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 62  | Connect Outcomes with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs  | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 62 will be prepared to pass the CompTIA Network+ examination.   |  |       |       |       |       | P     |       |       |       |        |       |       |       |       |
| CNET 62 students will demonstrate understanding of basic network structures.   |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Explain the network structure, including the characteristics of the various topologies and their advantages and disadvantages. |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Identify the major network operating systems and their characteristics.  |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Analyze the primary protocols with their functions.  |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |
| Define the layers of the OSI model and compare and contrast the protocols, services and functions that pertain to each layer.  |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Recognize and describe the major characteristics of networking media and their connectors.                                     |  | I     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify the attributes, purpose and function of various network elements.   |  |       | I     |       |       |       |       |       |       |        |       |       |       |       |

Key for Level of Learning  
 (Use for Mapping SLOs/MOs to PLOs to ILOs)  
 I = Knowledge/Skill Introduced  
 P = Knowledge/Skill Practiced/Applied  
 M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs) |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 64   | Connect Outcomes with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs   | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 64 will be able to install servers into a network environment.               |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET 64 will be prepared to pass the CompTIA Server+ examination.                 |  |       |       |       |       | P     |       |       |       |        |       |       |       |       |
| CNET64 students will demonstrate understanding of storage system fault tolerance.                     |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Describe different types of servers, and identify hardware and software components used in servers.   |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Install servers into a network environment.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Describe proper server configuration for optimal performance.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Evaluate preventative measures to keep servers running at acceptable performance levels.              |  |       |       | P     |       |       |       |       |       |        |       | P     |       |       |
| Describe upgrade procedures of server hardware and software.  |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Discuss environmental issues that pertain to server operation.  |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Troubleshoot server hardware and software problems using a flow chart and diagnostic tools.           |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Identify and explain disaster-recovery concepts and techniques.                                       |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Practice aspects of the server core exam in preparation for the CompTIA exam.                         |  |       |       |       |       | M     |       |       |       |        |       |       |       |       |

## Key for Level of Learning

(Use for Mapping SLOs/MOs to PLOs to ILOs)

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered

# Outcomes Mapping

| Student Learning Outcomes (SLOs), Measureable Objectives (MOs), Administrative Unit Objectives (AUOs)                     |  |       |       |       |       |       |       |       |       |        |       |       |       |       |
|---|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|-------|-------|
| Course: CNET 66   | Connect Outcomes with an <b>I, P, or M</b> (see Key in Footer) identifying the level to which knowledge or a skill can be demonstrated in that portion of the course or service. |       |       |       |       |       |       |       |       |        |       |       |       |       |
| SLOs, MOs, AUOs   | PLO 1  | PLO 2 | PLO 3 | PLO 4 | PLO 5 | PLO 6 | PLO 7 | PLO 8 | PLO 9 | PLO 10 | ILO 1 | ILO 2 | ILO 3 | ILO 4 |
| Students completing CNET 66 will be able to "harden" an operating system to protect computers from security threats.      |  | P     |       | P     |       |       |       |       |       |        |       |       |       |       |
| Students completing CNET 66 will be preped to pass the CompTIA Security+ examination.                                     |  |       |       |       |       | P     |       |       |       |        |       |       |       | I     |
| Students completing CNET66 will be able to recommend risk mitigation and disaster recovery strategies to an organization. |  |       |       | P     |       |       |       |       |       |        |       |       |       | I     |
| Describe the various aspects of information security.   |  |       |       | P     |       |       |       |       |       |        |       |       | P     |       |
| Describe the various attacks to which a network is exposed.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Describe the various components and the purpose of an infrastructure.   |  | P     |       |       |       |       |       |       |       |        |       |       |       |       |
| Evaluate the types of Intrusion Detection System in use.  |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Demonstrate the process of hardening an operating system.   |  |       | P     |       |       |       |       |       |       |        |       |       |       |       |
| Implement the various aspects of physical security.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Compare and contrast the common topologies and methods used in encryption.  |  |       | P     |       |       |       |       |       |       |        |       |       |       |       |
| Describe the aspects of disaster recovery.  |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |
| Demonstrate techniques to remove security breaches.   |  |       |       | P     |       |       |       |       |       |        |       |       |       |       |

**Key for Level of Learning**

*(Use for Mapping SLOs/MOs to PLOs to ILOs)*

I = Knowledge/Skill Introduced

P = Knowledge/Skill Practiced/Applied

M = Knowledge/Skill Mastered