COURSE OUTLINE

Section 1:

Course Title: Technology Project

Course Code: CNET-2310

Course Description: A student initiated capstone design in computer networking or computer systems integration. Formal project management techniques are used to manage the project. The course concludes with the delivery of a written technical report and an oral presentation of the completed project.

Grade Scheme: ☐ Pass/Fail ☒ Percentage Minimum Pass Mark: 60%

Course Value: Outcome hours OR 4 Credit(s) 90 (15 class + 75 lab) Hours

Pre-requisites:
RSRC-2001 Technology Project Preparation
CNET-2110 Active Directory Infrastructure
CNET-2201 Network Analysis and Design
CNET-2210 Virtualization

Co-requisites:
CNET-2020 Email Management
CNET-2011 Cisco CCNA IV: Connecting Networks
CNET-2030 Web Technologies
CNET-2050 PowerShell and Enterprise Systems

Section 2:

Learning Outcomes and Competencies

1. **Apply project management techniques to complete technology project on time.**
   - 1.1 Prepare progress reports.
   - 1.2 Use Gantt charts to track progress.
   - 1.3 Establish a suitable methodology of version control for project files.
2. **Determine required components and systems costs.**
   - 2.1 Research hardware and software components required to meet system specifications.
   - 2.2 Select software tools to aid in system design.
   - 2.3 Determine hardware and software costs.

2.4 Determine engineering costs to design the system.

2.5 Calculate total cost to design and implement the system.

3. Test performance of hardware and software to verify design specifications.

3.1 Implement system to demonstrate basic functionality.

3.2 Derive suitable design evaluation criteria.

3.3 Develop hardware tests to verify design specifications.

3.4 Develop software tests to verify design specifications.

3.5 Develop hardware and software integration tests.

3.6 Describe limitations of design and make recommendations for performance improvements.

4. Document the design and implementation of system using industry recommended practices.

4.1 Maintain log book of system design.

4.2 Document the design specifications for the system.

4.3 Create diagrams of system hardware, software, and network connectivity.

4.4 Record test results.

4.5 Create flowcharts to document algorithm for software design.

5. Present system solution in oral and written formats.

5.1 Prepare a technical report using given format requirements.

5.2 Demonstrate operation of system.

5.3 Present project report orally.

5.4 Defend project conclusions orally.

Section 3:

Assessment Categories:	Project Management	20%
	System Implementation	30%
	Technical Report	25%
	Presentation	25%

Research Component? ☐ Yes ☒ No

Section 4:

(For administrative use only)

Is this course new? ☒ Yes ☐ No

Is this course replacing an existing course(s)? ☒ Yes ☐ No

If this course is replacing another, please record the name and code of the old course:
CNET-2300 Technical Thesis

Course equivalents: CNET-2300 Technical Thesis

Note: See Quality Procedure A01 for more details.

Catalog Year of Original Course Implementation: 2011

Catalog Year of Current Version Implementation: 2015

Revision level: 3 **Version:** 2 **Date:** June/2016 **Authorized by:** MLGJ

Accreditation and or Supporting Documents: CCTT National Technology Benchmarks: General Program Criteria

Additional Information: None

Subject matter expert(s): Rob Blanchard

Approved by: (Program Manager)

Paul Murnaghan Date Approved: **2016-06-30**

Approved by: (Curriculum Consultant)

Mary Lou Griffin-Jenkins Date Approved: **2016-06-30**