

Formal Evaluation and Subject Matter Expert Summary Report



Maine is IT!
INFORMATION TECHNOLOGY
A CONSORTIUM OF MAINE'S SEVEN COMMUNITY COLLEGES

CPT207

*Submitted to Maine is IT in fulfillment of the
TAACCCT grant requirements*

*By
Emporia State University*

EMPORIA STATE
UNIVERSITY
■ INFORMATION TECHNOLOGY

March, 2017

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Developed by Anna J. Catterson, Ph.D., Emporia State University.

Course Review for: Maine is IT
Course: KVCC CPT207
 Network Design and Management
Reviewed by: Anna J. Catterson, Ph.D
Date: March 21, 2017

Part 1: Course Review

A. Course Review & Introduction (16 points total)		
1.1 Instructions made clear how to get started and where to find various course components.	3	1
1.2 Learners are introduced to the purpose and structure of the course.	3	3
1.3 Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication are clearly stated.	2	0
1.4 Course and or institutional policies with which the learner is expected to comply are clearly stated, or a link to current policies is provided.	2	2
1.5 Minimum technology requirements are clearly stated and instructions for use provided.	2	0
1.6 Prerequisite knowledge in the discipline and/or any required competencies are clearly stated.	1	1
1.7 Minimum technical skills expected of the learner are clearly stated.	1	0
1.8 The self-introduction by the instructor is appropriate and is available online.	1	0
1.9 Learners are asked to introduce themselves to the class.	1	0
Total		7

Comments:

1.1: Yes, thank you for including the link to the course – very helpful and a best practice.

1.2: The purpose and structure for the course was explained in the syllabus. Please review the syllabus, there are many missing fields (Name, Voice Mail, Email, Office, etc.).

1.3: Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication should be covered. Examples include:

- Be sensitive to the fact that there will be cultural and linguistic backgrounds, as well as different political and religious beliefs, plus just differences in general.
- Use good taste when composing your responses in Discussion Forums. Swearing and profanity is also part of being sensitive to your classmates and should be avoided. Also consider that slang can be misunderstood or misinterpreted.
- Don’t use all capital letters when composing your responses as this is considered “shouting” on the Internet and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read your message.
- Be respectful of your others’ views and opinions. Avoid “flaming” (publicly attacking or insulting) them as this can cause hurt feelings and decrease the chances of getting all different types of points of view.
- Be careful when using acronyms. If you use an acronym it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that you can use the acronym freely throughout your message.
- Use good grammar and spelling, and avoid using text messaging shortcuts.

Even though you may not have a discussion board for this class, etiquette can apply to email communication or any other communication you may have with students. Informing students what a proper posts or email is, can be beneficial. Many students have not been informed of how to send an appropriate email, for example. Giving directions such as what to put in the subject line will help them and you with answering student's questions. This would apply to ALL courses, online, hybrid and face-to-face.

1.4: Course and institutional policies were covered in the syllabus. Reviewer found that all policies were covered well in the syllabus. Links to student services for each policy could be an additional item added.

1.5: Technology requirements were not stated in the course syllabus. If there are not any technology requirements, please state that.

1.6: Prerequisite knowledge of CPT126 and CPT128 required; listed on course syllabus.

1.7: Minimum skills were not addressed in the course syllabus.

1.8: Even in a face-to-face course, it is desirable to have an instructor introduction/biography available for students to access online. A short introduction with some personal information will humanize the instructor in an online course and allow students to access the information at any time in a face-to-face course. The reviewer noted the Instructor bio folder, however, it was very vague and appeared more like a CV. Reviewer recommends customizing the content to build a sense of community, adding a video would be a nice enhancement and ideal/best practice for all course types (hybrid, F2F, online).

1.9: No discussion thread is provided for students to communicate, informally, with each other outside of the class meetings. Even in a face-to-face course, it is desirable to have a means for students to informally communicate with each other to share concerns and ask questions.

B. Learning Objectives & Competencies (15 points total)

2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable	3	3
2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	3	3
2.3 All learning objectives and competencies are stated clearly and written from the learner's perspective.	3	1
2.4 The relationship between learning objectives or competencies and course activities is clearly stated.	3	1
2.5 The learning objectives or competencies are suited to the level of the course.	3	3
Total		11

Comments:

2.1: There are 21 learning outcomes and 12 deliverables (course content). Reviewer recommends restructuring so that the evaluation can be a direct reflection to what is covered in the course. Here is an example:

- 1. Compare and contrast the various types of data communications and network management tools.**
 - a. Describe and analyze the hardware, software, network components and the interrelations.
- 2. Describe information network technology.**
 - a. Explain networking protocols and their hierarchical relationship.
- 3. Illustrate the basic foundations of networking.**
 - a. Compare protocol models and select appropriate protocols for a particular design.
 - b. Evaluate and compare systems software and emerging technologies.
 - c. Explain concepts and theories of networking and apply them to various real-world applications.
 - d. Explain and illustrate classifying networks, analyzing performance and implementing new technologies. (Exam 1)

This is just an example, but using the headings under “Course Content” seem more applicable and a broader category to write a learning outcome from. The deliverables 1-21 can then be placed under each learning outcome. This allows for more transparency and distinction in the assessment process. Reviewer also recommends linking each of the outcomes to assessment or project; you could use a matrix or simply put the name of the assessment after each. Reviewer has demonstrated on 3d.

2.2: All of the learning outcomes could be improved to some degree. Reviewer encourages varying the verbs and using other active words that students do in the classroom (Identify, Demonstrate, Show, Participate, Present, Determine, Explain, Convey, etc.).

2.3: The objectives are clearly written from the learner's perspective.

2.4: The course activities clearly relate to the learning objectives. Reviewer suggests adding a table with activities, assessments and due dates including each of the lab projects that are assigned.

2.5: The objectives are suited to the level of the course.

C. Assessment & Measurement (13 points total)

3.1 The assessments measure the stated learning objectives or competencies.	3	3
3.2 The course grading policy is stated clearly.	3	2
3.3 Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.	3	1
3.4 The assessment instruments selected are sequenced, varied, and suited to the learner work being assessed.	2	0
3.5 The course provides learners with multiple opportunities to track their learning progress.	2	0
Total		6

Comments:

3.1: After reviewing the assignments, final project as well as the final exam, the activities do relate to the learning outcomes. There is quite a bit of written assessments and reviewer encourages variety to help learners with different learning styles such as multimedia, group collaboration, research or other methodology.

3.2: The grading policy is stated in the syllabus. Please consider other learning styles and it is good practice to include a mix of categories for all types of learners. The categories of grades do not seem well balanced. More than half of the grade comes from one category: Exams. The exams and final exam outweigh the other projects and the reviewer does not find that to be a good fit with this course; especially with the varied application based projects that are included. Reviewer would concentrate more weight towards the graded assignments and the final applied network design and management project; this seems to be more in-line with the Advisory Board recommendation (hands-on projects were suggested from Advisory members). Since this course does not link to a national certification, reviewer would not emphasize a large percentage towards exams.

3.3: There is some question about when grades are due, how items are to be turned in and how they relate to the grading policy. Rubrics would substantiate this tremendously; strongly encourage the use of grading rubrics for ALL assignments. Also, when will students receive feedback from the instructor and how will that be facilitated? What is the turn-around time for assignments?

3.4: No variation to assessments; Reviewer encourages more activities to engage students. More engagement and project-based learning opportunities would be ideal for this particular course. Some key terms from the Advisory Board and Burning Glass data revealed key terms such as: hands-on, real-world scenarios, job shadowing opportunities. Reviewer would like to see more of these key terms and activities embedded within the course.

3.5: It is unclear how students will receive feedback; please provide in syllabus. Also, good to provide how feedback will be received (Blackboard, email, face-to-face, phone, in class).

D. Instructional Materials (13 points total)

4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.	3	3
4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.	3	3
4.3 All instructional materials used in the course are appropriately cited.	2	0
4.4 The instructional materials are current.	2	2
4.5 A variety of instructional materials is used in the course.	2	0
4.6 The distinction between required and optional materials is clearly explained.	1	0
Total		8

Comments:

4.1: The instructional materials align with the unit objectives stated in the syllabus. The textbook was published in 2010, however a newer edition is not available. The textbook is on the expensive side, \$178.00 – this may be detouring to some students. Open Educational Resources offers several comparable networking books, same course outcomes, free of charge. This may be a better suited and a nice addition to the instructional materials, suggestion only.

4.2: The purpose of the instructional materials were explained and detailed under Course Requirements. The textbook is used for all exams; all open-book exams. Under **Course Activities** it is unclear to the reviewer what is meant by “Instructor is open to alternative methods of learning and delivery, please contact the instructor for more information at [insert contact information].” This is vague and unclear. Alternative methods of learning, is this referencing the Blackboard environment, F2F, hybrid – what exactly is an alternative method? Please be more clear with this statement (reviewer notes that this statement was found on multiple syllabi reviewed – needs to have more specific information for students).

Under the class outlines, Class #2 lists some hand drawn drawings of fiber optics and circuits. These drawings are very difficult to read and not considered accessible. It would be best to draw them while recording yourself explaining them and then converting to a movie format OR make them electronic so a screen reader can read them. Hand drawings are very difficult to decipher.

Rubrics are very much needed for all projects and assignments but especially the Final Project. There are many tasks that need to be outlined and assigned points. Reviewer **STRONGLY** encourages grading rubrics to facilitate the grading.

4.3: Yes

4.4: The instructional materials are current. – **see note from 4.1.**

4.5: The instructional materials do not vary; please consider providing other help and guides including video or multimedia.

4.6: With the exception of Attendance, there is no mention of optional materials.

E. Course Activities and Learner Interaction (11 points total)

5.1 The learning activities promote the achievement of the stated learning objectives or competencies.	3	3
5.2 Learning activities provide opportunities for interaction that support active learning.	3	0
5.3 The instructor's plan for classroom response time and feedback on assignments is clearly stated.	3	0
5.4 The requirements for learner interaction are clearly stated.	2	0
Total		3

Comments:

5.1: The learning activities directly support the course/unit learning objectives. It would be best practice to include an assignment matrix that maps back to the student learning outcomes; this allows a more clear definition between what the student is doing to learn each outcome.

5.2: No opportunities for interactive participation or engagement exercises. Reviewer encourages more participation activities and engagement opportunities.

5.3: The syllabus has no statement as to a timetable for instructor feedback. Try to give students a reasonable timeline to expect feedback on assignments.

5.4: The requirements for class participation are not stated in the course syllabus. Learners should be informed of how they will interact with others in the course, especially if credit is given.

F. Course Technology (10 points total)

6.1 The tools used in the course support the learning objectives and competencies.	3	3
6.2 Course tools promote learner engagement and active learning.	3	1
6.3 Technologies required in the course are readily obtainable.	2	2
6.4 The course technologies are current.	1	1
6.5 Links are provided to privacy policies for all external tools required in the course.	1	0
Total		7

Comments:

6.1: The tools in the course support the unit objectives.

6.2: The syllabus does not state any interactive projects, how will learners interact and engage? How will you make thinking visible in your classroom?

6.3: The technologies are readily available.

6.4: The course technologies are current and up-to-date for the required work.

6.5: Privacy policies are usually available in the software use agreement. A review of the agreement for each application required in the course will insure that student data required for the use of the software is secure. Linking to the agreements will allow students to easily access the policies.

G. Learner Support (9 points total)

7.1 The course instructions articulate or link to a clear description of the technical support offered and how to obtain it.	3	0
7.2 Course instructions articulate or link to the institution’s accessibility policies and services.	3	1
7.3 Course instructions articulate or link to an explanation of how the institution’s academic support services and resources can help learners succeed in the course and how learners can obtain them.	2	0
7.4 Course instructions articulate or link to an explanation of how the institution’s student support services and resources can help learners succeed in the course and how learners can obtain them.	1	0
Total		1

Comments:

7.1: Providing students access to technology support is very important. Don’t assume that students know how to obtain support from the institution. Provide instructions/links for students to access the technology help services available to them.

7.2: The syllabus contains an excerpt from the institution website pertaining to accessibility. Consider providing a link to the site or instructions for students to access the services. Please also include the contact name and not [insert name] and [email] – update to reflect most current information.

7.3: Access to the institutional academic support services is critical. Consider providing instructions/links to tutoring and other academic support services.

7.4: As with academic support, student wellness and support is also critical. Consider providing instructions/links to the institutional student support services.

H. Accessibility and Usability (12 points total)

8.1 Course navigation facilitates ease of use.	3	3
8.2 Information is provided about the accessibility of all technologies required in the course.	3	3
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	2	0
8.4 The course design facilitates readability.	2	2
8.5 Course multimedia facilitate ease of use.	2	2
<i>Total</i>		10

Comments:

8.1: The Blackboard course appears to be a place to store files, no sense of community. Reviewer encourages a community of learning for all types of courses, including hybrid and F2F. A discussion board for students to pose questions or comments is beneficial. A welcoming presence is also ideal with instructor announcements/biography on the landing page.

8.2: Technologies seem to be readily available. It would be helpful to provide some links to references for the final project for students to search available business software applications or perhaps links to prominent business journals and periodicals.

8.3: Text files, audio files, video files. Consider multiple delivery systems for course materials. The Americans with Disabilities Act requires institutions to make accommodations for student who identify as having a disability. Work closely with your institution's office for disability services to identify resources to assist in making your course ADA compliant. The Reviewer understands that due to the nature of this course, creating accessible accommodations to someone with a disability may be difficult to do however, required.

8.4: Pay special attention to fonts, text color, and background color. Most learning management systems have a default appearance that is ADA compliant. Also, be aware that screen reader software will not recognize bold or italicized fonts. Check with your office of disability services before changing the appearance of your course. Also, note that the course syllabus was not compliant. Try to avoid bold and use tables for screen readers.

8.5: If possible, embed the media player in the page to assure ease of access. Reduce the instances of outside links to multimedia.

Part II: Employment Data

Stakeholder Involvement and Employment Opportunities

Items Reviewed include:

- Internships, Job Shadowing Opportunities that exist with the outcomes and objectives with this course.
- Employment opportunities for these skills.
- Outcomes/Objectives are current and relate to job market.

Findings include:

Please refer to the SME report.

Part III: Creative Commons

Items Reviewed include: <ul style="list-style-type: none">• All course materials presented in Creative Commons?• Creative Common license (including graphic) is represented on course materials.
Findings include: Creative commons logo and licensure found.

Part IV: Subject Matter Expert (SME) Findings & Review

Course: KVCC: CPT207
Course Name: Network Design & Management
Reviewed by: Anna J. Catterson, Ph.D.
Date: February 13, 2017

Background

Funded by a \$13 million grant from the U.S. Department of Labor, *Maine is IT!* is building new educational and career pathways in information technology at all seven of Maine's community colleges. The programs funded by the grant are designed to support Maine workers eligible for the Trade Adjustment Assistance (TAA) program, un/underemployed adults, and workforce needs in Maine's growing IT sector. They have been built to serve individuals with a range of experience, from those interested in gaining basic IT skills to IT professionals looking to advance their careers through new industry certifications.

Overall Remarks and Reviewer Summary

In reviewing CPT207, several processes and data collections tools were noted and identified. This reviewer took in account the Dynamic Skills Audit conducted in 2014-2015. Both qualitative and quantitative data was identified in the report that provides the key elements:

1. Career opportunities do exist within 50 miles of KVCC for graduates from an AAS in Information Technology or those completing a certificate program. It was also found by this reviewer that the skills mastered in CPT207 relate to specific job openings. More than 10 jobs were located near Augusta, Maine, a 31-minute drive from KVCC campus. Jobs posted that directly relate to CPT207 include:
 - **Information Security Analyst, Maine Public Employees Retirement System**
 - Knowledge of commonly-used concepts and data security procedures used within Information Technology.
 - Knowledge of NIST 800 series of cybersecurity best practices and frameworks.
 - Knowledge of Security Information and Event Management (SIEM) log analysis and event detection.
 - Knowledge of computer operating system architecture and management information system.
 - Knowledge of computer networking and data communication.
 - Ability to prepare and test data security programs.
 - Demonstrated understanding of business procedures.
 - Strong interpersonal skills and the ability to focus on the Guiding Principles when engaging others.
 - Demonstrated excellent analytical/critical thinking, problem-solving/decision making and troubleshooting skills.
 - Ability to utilize internet knowledge bases and other resources to preform research.
 - Ability to stay abreast of security industry activity including recent breaches and preventative techniques.
 - Knowledge of change management principles and the ability to effectively introduce change positively within the work environment.
 - Ability to establish and maintain effective working relationships with management, vendors, and other technical and non-technical peers.
 - Ability to effectively conduct meetings.
 - Ability to communicate effectively orally and in writing.

- Ability to present information to a diverse audience in a clear and professional manner.
- Ability to work independently, as well as part of a team.
- **Technical Customer Support Consultant – DVMax; IDEXX Laboratories, Inc.**
 - Possess excellent verbal and written communication skills
 - Be able to type 60 WPM
 - Be detail oriented, including the ability to understand a client’s needs and issues and translate them into a clear, legible format.
 - Have a good understanding of both Windows and Macintosh computer hardware and operating systems.
 - Have solid foundation in the use of Microsoft Office applications including Word, Excel, and PowerPoint is needed.
 - Have strong troubleshooting skills.
 - Have an aptitude for learning new software and features through manuals, the Internet, trial-and-error, and internal resources.
 - Have a genuine interest in new technology, and the products we currently offer.
 - Have an overall knowledge of the veterinary profession and business management in general would be advantageous to someone in this position.
- **Client Systems Administrator, Vermont Energy Investment Corporation (VEIC)**
 - Strong personal commitment to the mission, vision, goals and values of VEIC.
 - Associate’s degree in, management of information systems, computer science or a combination of education and experiences from which comparable knowledge and skills are acquired.
 - 4 years of experience managing client systems or a combination of education and experience from which comparable knowledge and skills are acquired.
 - Proficiency with Microsoft System Center Configuration Manager, Active Directory and Group Policy are required.
 - Extremely strong analytical and troubleshooting skills.
 - Strong interpersonal skills, written and oral communication skills and customer service approach.
 - Operational knowledge of Windows operating system deployment, desktop and laptop hardware/drivers, and 1 or more scripting languages, PowerShell preferred.
 - Proficiency with word processing, spreadsheet and database software.
 - Demonstrated ability to be organized, detail-oriented, accurate, and able to handle multiple tasks and competing priorities in a dynamic and fast paced environment.

The Dynamic Skills Audit outlined the following process, which this reviewer took into consideration when compiling this the formal SME report:

1. Local industry needs were assessed through the program Advisory Board. Minutes from those Advisory Board meetings were reviewed and suggestions from the partnerships were adopted into this summary.
2. Burning Glass data was reviewed to identify themes and trends in the current job market. The Burning Glass report helped identify skills demanded by employers to curriculum outcomes and learning objectives. Again, the Advisory Board committee has identified key soft skills that should be incorporated into the assessments and/or course outcomes and should also be a considered as a direct tie to the program outcomes.

A. Program and Course Overview and Objectives

Items Reviewed include:

- Dynamic Skills Audit Summary Report (Academic Years 2014-2015)
- Burning Glass Labor Market Data reports (Compilation)
- Advisory Board Minutes

Findings include:

The CPT207 course learning outcomes and objectives could be revised to be more clear and use a variety of action verbs to help accommodate different learning styles.

The industry sector for CPT207 has been categorized as: *541519 Other computer related services*. (See: https://www.census.gov/svsd/www/services/sas/sas_summary/54summary.htm#sectordescription) The reviewer finds that this classification is correct.

Those completing this course would enter the Bureau of Labor Statistics occupation classification of *15-1152 Computer Network Support Specialist*. (See: <https://www.bls.gov/soc/2010/soc151152.htm>) This is defined as: Analyze, test, troubleshoot, and evaluate existing network systems, such as local area network (LAN), wide area network (WAN), and Internet systems or a segment of a network system. Perform network maintenance to ensure networks operate correctly with minimal interruption. Excludes "Network and Computer Systems Administrators" (15-1142) and "Computer Network Architects" (15-1143).

The NCES CIP (Classification of Instructional Programs) is referenced as: 11.0901: Computer Systems Networking and Telecommunications. A program that focuses on the design, implementation, and management of linked systems of computers, peripherals, and associated software to maximize efficiency and productivity, and that prepares individuals to function as network specialists and managers at various levels. Includes instruction in operating systems and applications; systems design and analysis; networking theory and solutions; types of networks; network management and control; network and flow optimization; security; configuring; and troubleshooting. (See: <https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=87259>)

This course was designed for 1st-year community college students or equivalent. Some course pre-requisites include Computer Technology Fundamentals and Data Communication Systems.

Specific review standards are listed in the table referenced below:

Table: Standard Reviewed Standards for Course Outcomes

Standard Reviewed	N/A	Satisfactory	Not Satisfactory
A.1 The learning outcomes are clearly stated and mapped to specific objectives and/or assignments.		X	
A.2 Prerequisites and/or any required competencies are clearly stated.		X	
A.3 Learning objectives for each course describe outcomes that are measurable.		X	
A.4 Learning objectives are appropriately designed for the level of each of the course.		X	
A.5 Instruction, activities, and assignments in courses are scaffolded from course to course, and throughout the program.			X

A.1 – Outcomes and objectives should be reconsidered. Take a look at other verbs that could apply to diversify the course.

A.2 – Yes, pre-requisites are clearly stated.

A.3 – Course outcomes are measurable to a degree; could be better written aligned with course content topics. Suggested in the formal report.

A.4 – Learning objectives are appropriate for an introductory course.

A.5 – Reviewer suggest additional engagement activities and interactive components for students.

B. Relevancy

Items Reviewed include:

- Dynamic Skills Audit Summary Report (Academic Years 2014-2015)
- Burning Glass Labor Market Data reports (Compilation)
- Advisory Board Minutes

Findings include:

Course competencies are relevant to students, industry, and employers. Strong evidence was found in the Dynamic Skills Audit Summary Report. Direct ties were found through interviews with stakeholders and in Advisory Board minutes.

The table that follows is a clear matrix of how the course outcomes are relevant to students, industry, and employers:

Table: Matrix of evidence-based skills mapped to students, industry, and employers

Standard Reviewed	N/A	Satisfactory	Not Satisfactory
B.1 Course competencies represent industry's expectation of the overarching knowledge, skills, and abilities that 1 st year college students should possess.		X	
B.2 Core course competencies are relevant to industry and employers .		X	
B.3 Instruction, activities, and assignment in individual courses are relevant and engaging to		X	

B.1 - Course objectives align with industry expectations at the appropriate skill level. Specific jobs found that relate directly to student learning outcomes.

B.2 - Core competencies are relevant to industry and employers, as verified using the Burning Glass labor market data (<http://burning-glass.com/research/coding-skills/>) and the Dynamic Skills Audit Summary. Student learning objectives align with the competencies expected of the networking field. Several state jobs were found by the Reviewer as of 3/21/2017, it is suggested to articulate partnerships with the State of Maine allowing for direct internships or job shadowing opportunities. This will help build the soft skills that were deemed an important trait by the Advisory Board AS WELL AS the jobs found. Direct language from the jobs required strong interpersonal skills which includes both written and oral communication.

B.3 – Activities could and should be mapped to specific course outcomes/objectives.

C. Resources & Materials

Items Reviewed include:

- Dynamic Skills Audit Summary Report (Academic Years 2014-2015)
- Burning Glass Labor Market Data reports (Compilation)
- Advisory Board Minutes

Findings include:

Textbook contents aligned with course objectives.

Table: Instructional materials and their direct link to course outcomes

Standard Reviewed	N/A	Satisfactory	Not Satisfactory
C.1 The instructional materials contribute to the achievement of the stated course learning objectives.		X	
C.2 The purpose of the instructional materials is clearly explained.			X
C.3 The instructional materials present a variety of perspectives and approaches on the course			X
C.4 The instructional materials are appropriately designed for the level of the course.		X	

C.1 – The topics covered with the course materials clearly align with course learning objectives. A matrix would help student identify what concepts will be mastered under which topic.

C.2 –Reviewer noted in this review that a table with due dates and alignment to student learning outcomes should be considered.

C.3 –The technology content varies throughout the course; however, the main pattern of instruction is constant. Reviewer encourages group work.

C.4 – Because the materials align with appropriate course outcomes, they are a good fit for the level of course.

D. Assessment & Measurement

Items Reviewed include:

- Dynamic Skills Audit Summary Report (Academic Years 2014-2015)
- Burning Glass Labor Market Data reports (Compilation)
- Advisory Board Minutes

Findings include:

Table: Measurement of effective learning

Standard Reviewed	N/ A	Satisfactory	Not Satisfactory
D.1 The course evaluation/criteria/course grading policy is stated clearly on each syllabus.		X	
D.2 Course-level assessments (those that can be delivered) measure the stated learning objectives and are consistent with course activities and resources.		X	
D.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation and are tied to the course grading policy.			X
D.4 The assessment instruments (that can be delivered) are sequenced, varied, and appropriate to the content being assessed.		X	

D.1 – The grading policy is clearly stated. Reviewer suggests lowering the percentage for the exams; it's more than half of the grade.

D.2 – Yes

D.3 – No criteria or guidance is given to let students know how their work throughout the course would be evaluated to provide feedback on their progress. Describing what will be done in each assignment and how it contributes to the course outcomes will serve this purpose and motivate students to complete these ungraded activities.

D.4 – This course could be in multiple pathways; good addition to the program.