Formal Evaluation and Subject Matter Expert Summary Report

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

CPT201

EMPORIA STATE
U N I V E R S I T Y
■ INFORMATION TECHNOLOGY

Part 1: Course Review
This course review is based off of the online CMConnect course portal, in addition to the syllabus, course materials and a narrative.

A. Course Review & Introduction (16 points total)		
1.1 Instructions made clear how to get started and where to find various course components.	3	**0**
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	**1**
1.6 Prerequisite knowledge in the discipline and/or any required competencies are clearly stated.	1	**0**
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		**6**

Comments:

1.1: The syllabus does not include information to help students access the online course. Adding a direct link is recommended. It is also recommended that both the online course and syllabus include "Getting started" information to help inform students about initial procedures and to introduce course and CMConnect components.

1.2: The purpose of the course is clearly stated. The syllabus includes percentage breakdowns of the time spent in various class settings and with various class activities.

1.3: There is nothing in the syllabus to indicate that course interactions will take place through the LMS, but electronic communication is ubiquitous, whether formally set up in the course or not. There is an "Open Discussion" board, probably for students to ask/answer each other's questions. 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 other 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)

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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.

1.4: Several policies, including participation, academic dishonesty, and late work are covered. If additional college-wide information is available, consider adding links to the campus policies.

1.5: No minimum hardware or software requirements to conduct course activities are listed in the syllabus. These may be deemed unnecessary if the course work will take place in a campus lab, but if students are expected to play with the software on their own, they may benefit from instructions on how to access software, how to install it, and what minimum technical requirements would be necessary for their personal computers.

1.6: The syllabus does not list prerequisites or expectations of students' knowledge when entering the course. Even if no formal prerequisites exist, students may appreciate a statement of the level of computer competency required for initial success.

1.7: Minimal skills for students entering the course are not listed.

1.8: No introduction for the instructor or link to an online introduction is given.

1.9: Nothing in the syllabus indicates that students are asked to introduce themselves.

B. Learning Objectives & Competencies (15 points total)

2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable	3	**1**
2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	3	**0**
2.3 All learning objectives and competencies are stated clearly and written from the learner's perspective.	3	**3**
2.4 The relationship between learning objectives or competencies and course activities is clearly stated.	3	**0**
2.5 The learning objectives or competencies are suited to the level of the course.	3	**3**
Total		**7**

Comments:

2.1: Some of the course learning outcomes are written in measurable terms. Others do not sufficiently identify what students will be doing with the course content in a measurable way. Outcome #1 is measurable, because it clearly states what students will do to demonstrate their understanding, and a rubric could be created to score the quality of the program students create. #2 is not measurable, because it is not clear how students will demonstrate their understanding of terminology. Will there be a quiz that they must score a certain percentage on? Will the frequency of correct vs. incorrect terms be tracked? #6 is also vague in how the students will demonstrate their familiarity with tools and how this will be measured. Outcomes should be revised with the guiding idea that they should give a clear picture of what students will be doing and how it will be measured.

2.2: Reviewer found several files uploaded in the course however nothing was in a logical or organized place; course is being used as a storage device for files it appears. The activities in the course are within reason for course-level objectives. The PowerPoint lectures are ADA accessible however provide no interactivity or opportunity for engagement.

2.3 : Objectives are written from the student perspective, so if it is unclear what they will be doing within each topic, students at least have an idea of their overall path through the course.

2.4: There is no link make between unit objectives and course objectives. If there was some alignment that pointed out to students that this unit could be contributing toward course objective #X, they will have a better understanding of what its purpose is.

2.5: Objectives are suited to the level of this introductory 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	**3**
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	**2**
3.5 The course provides learners with multiple opportunities to track their learning progress.	2	**2**
Total		**11**

Comments:
3.1: Assessments will consist of chapter quizzes, chapter exercises, programming projects, and midterm & final exams. As these appear to be coming from the textbook, which is also providing the unit-level objectives, it can be inferred that the assessments throughout the semester will adequately measure the objectives.
3.2: Course grading policy is clear.
3.3: No grading criteria are provided for the assessments, so it is unclear how failure to meet any particular objectives might affect the overall grade. But the course grading policy explains the points and weighting of the various types of assessment.
3.4: It can be inferred from the textbook material samples provided for review that the course topics and activities are sequenced, and the variety of topics will result in a variety of hands-on assessment activities that would fit with the learning objectives.
3.5: Each chapter has several assignments in which students can gauge their progress.

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	**2**
4.4 The instructional materials are current.	2	**2**
4.5 A variety of instructional materials is used in the course.	2	**2**
4.6 The distinction between required and optional materials is clearly explained.	1	**1**
Total		**13**

Comments:

4.1: Course materials include presentations, readings, and assignments from the required textbook. As the topics covered and the types of assessments used align with course learning outcomes, the materials adequately contribute to student achievement.

4.2: The syllabus explains how the textbook will be used to support learning activities.

4.3: The textbook is sited by title, author, and ISBN **– however it is the same textbook for Visual Basic, is this correct?**

4.4: The textbook was published in 2012, there are newer editions of this textbook and software.

4.5: The textbook and lectures, in conjunction with the hand-on learning activities present an adequate variety of instructional materials for the students.

4.6: No distinction between required and optional materials is given. It can be inferred that all materials presented by the instructor are deemed required.

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	**1**
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		**4**

Comments:
5.1: Learning activities, especially those that allow students to apply content to design and/or debug functional programs, promote achievement of the course objectives.
5.2: It is not evident that learners are interacting interpersonally with each other, but they will engage with the software applications available for hands-on active learning.
5.3: No plan is provided for classroom response time or assignment feedback.
5.4: No requirements are listed for learner interaction.

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	**3**
6.3 Technologies required in the course are readily obtainable.	2	**1**
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	**8**

Comments:
6.1: The course will use the Linux language to achieve learning objectives. This is a good fit between tools and the course outcomes.
6.2: Based on course activity descriptions, course tools do promote learner engagement and active learning.
6.3: The syllabus and course materials do not explain how students will access Linux. The syllabus states that 0 hours will be spent in a lab session, and all time will be spent in classroom meetings and on outside homework. This could mean that students are expected to install it on their own devices, but this point should be clarified for students.
6.4: Course technologies are not current, copyright 2012 – there are newer editions of Linux and the textbook.
6.5: No links are provided in the syllabus. 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	**3**
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		**3**

Comments:
7.1: No technical support information is provided in the syllabus. It is recommended that multiple channels of tech support communication be listed in the syllabus to ensure that no student is put behind due to technical difficulties.
7.2: A section of the syllabus addresses students requiring disability services, referring them to the CMCC Disabilities Coordinator. A location and contact information are provided. A link to their website would be helpful as well
7.3: No academic resources are listed in the syllabus or CMConnect course. If tutoring, advising, or other student services are available to support academic success, these should be listed along with links or contact information.
7.4: No student support services or resources are listed. If there are services to support student life resources, such as counseling or student wellness, these should be listed along with links or contact information. Courses usually include a statement in their syllabus regarding how students can seek help if they feel discriminated against, but there was not such a statement in this course.

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	**0**
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	2	**2**
8.4 The course design facilitates readability.	2	**2**
8.5 Course multimedia facilitate ease of use.	2	**2**
Total		**9**

Comments:

8.1: The CMConnect course shell allows easy access to instructional materials, providing downloads to presentation files in just one click from a "Handouts" section.

8.2: Information regarding the accessibility of technology used is not included. This would include instructions on how to obtain and install any programs used, as well as whether software is compatible with screen readers for the visually impaired.

8.3: The materials provided for review included PowerPoint presentation slides, text transcript files of lectures, and audio recordings of lectures. Combined, these provide an acceptable range of course material formats for the needs of diverse learners.

8.4: The course design does not present any readability issues, in part because of the relatively small amount of text found within the CMConnect shell. Check with your office of disability services if a significant amount of additional pages and content are added to the course.

8.5: Multimedia included are easily downloadable. When possible, embedding multimedia within the course LMS, rather than requiring downloads, ensures ease of access and limits student issues that may arise when leaving the LMS to access outside resources.

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.
• See Subject Matter Expert review for specific feedback.

Part III: Creative Commons

<table>
<tr><td style="background-color:#B8860B"> </td></tr>
<tr><td>Items Reviewed include:
• All course materials presented in Creative Commons?
• Creative Common license (including graphic) is represented on course materials.</td></tr>
<tr><td> </td></tr>
<tr><td>Findings include:

All course content provided for review includes Creative Commons license information and the corresponding CC graphic.</td></tr>
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Course: CMCC: CPT201
Course Name: Introduction to Linux
Reviewed by: Anna J. Catterson, Ph.D.
Date: June 26, 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 CPT201 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. Entry-level career opportunities were found within 5-30 miles of CMCC for graduates from an AAS in Computer Technology.
2. Current job openings list specific duties that relate the Intro to Linux course, CPT201.

There are several current job openings available for programmers (as of 6/26/17) within a 5-30 mile radius of CMCC. Jobs include:

Linux Systems Administrator:
At EFS a WEX Inc. Company we are a leading and growing global provider of payment processing, information management and fleet card payment solutions. We are passionate about providing payment solutions with unparalleled security and control for corporate purchasing and transaction monitoring needs. We hire people who share the same passion for continuous innovation and client service that is unparalleled in our industry. We are employee centric offering value-based incentives and generous compensation and benefits packages. If you are looking for a growing career come be part of WEX today! General Purpose: EFS is looking for a Linux Systems Administrator to join the Information Technology team. Our team develops and supports innovative customer-facing and internal solutions for EFS. Our applications are vital to EFSs continued growth and success. Essential Duties and Responsibilities Performance and tuning analysis, systems support and optimization Participate in 24x7 on call support Backup and recovery process set-up and monitoring Automation of tasks Disaster Recovery testing and implementation Technical support of application developers Assist in the requirements analysis, design, and development of new systems Knowledge transfer of skills to designated backups Minimum Required Qualifications for Consideration A minimum of 4 years of experience of Linux administration of HP-UX, AIX, or Linux servers. Is a team player with excellent written and verbal communication skills Thrives in an entrepreneurial environment Is detail-oriented and quality-focused Has a strong desire to quickly learn EFSs business Solid understanding of Unix based Operating Systems, understands paging and swapping, interprocess communication, devices and device drivers, logical volumes, can perform system analysis and tuning An understanding of networking concepts including TCP/IP, NFS, and inetd Experience programming in at least one scripting language (sh, bash, Perl, etc) Preferred Qualifications Experience administrating servers in large, corporate environments. Experience with Virtualization solutions (VMWare or PowerVM) Undergraduate degree in Computer Science/Software Engineering At WEX, we reward innovation, hard work and excellence. Benefits

include: Health Insurance Dental Insurance Vision On Site Fitness Facility in South Portland location 401(k) Plan PTO Life Insurance/AD&D Dependent Life Insurance Short- and Long-Term Disability Programs Extended Parental Leave Flexible Spending Accounts (Medical and Dependent) Employee Referral Award Program Employee Assistance Program Tuition Reimbursement Pet Insurance Bonus Plan Equal Opportunity Employer/Vets/Disability

Linux System Administration

Miniclip is looking for a Linux System Administrator to hire in our Lisbon (Portugal) Games Development Studio. This is a full-time position. Please apply only if you have the right to work in Portugal. DUTIES You will be part of a small team of dedicated dev/ops/dbas that support our mobile and web infrastructure. Thinking outside the box to come up with innovative solutions, and collaborating with developer teams to help them achieve their goals. Your primary responsibilities will include: Monitor several core systems for services' performance and stability; Work closely with server developers and fellow administrators to give technical support and guidance on day to day operations; Automate, manage and maintain Linux OS deployments; Fine tune Linux OS to achieve maximum performance on several different types of deployments as high transaction database systems, web or multiplayer game servers; Help define packaging of deliverables, installation and security methodology to ensure platforms move to production efficiently and with stability. SKILLS & EXPERIENCE We're looking for a social, hard-working person who enjoys teamwork and is passionate and dedicated to his/her work. The ideal candidate will be strongly skilled in the following: Expertise in two or more of the following products (RHEL 6.x, 7.x | Amazon Linux | CentOs 6.x, 7.x); 3-5 years of Experience scripting with Python, Perl or BASH; Adequate knowledge of network protocols (TCP/IP); Exposure to security concepts and best practices; Expertise on working with cloud-based infrastructures. The following skills are desirable but not essential: Expertise with Amazon Web Services; Troubleshooting on a variety of open source software including Nginx, Redis, Memcached and Apache; Knowledge or experience of MySQL Operational work. ADDITIONAL INFORMATION You will be working in our fashionable, open plan Studio in Lisbon with enthusiasts and professionals from the games industry. We like to maintain a very friendly and relaxed atmosphere, with regular team building and social events. We understand that being tied to a desk all day is not fun and that's why there is a games area, fridge with complimentary drinks and fruit for all staff. We also have a fantastic benefits package which includes comprehensive medical cover, gym membership, local discount packs, Portuguese language lessons and time-off for voluntary work. THE COMPANY Miniclip is a global leader in digital games. The company develops, publishes and distributes highly engaging games to an audience of 150 million monthly active users, across mobile, social and online platforms. Founded in 2001, the company has successfully grown a huge organic global audience in over 195 countries and across six continents. Miniclip has a unique understanding of the digital games space and has developed a strong portfolio of over 45 high-quality mobile games, extensive worldwide distribution and an internationally recognized brand name. Leading franchises include 8 Ball Pool™, Basketball Stars, Soccer Stars™ and Agar.io™. In 2015, Agar.io was the #1 trending game on Google, and the third highest-trending search term overall. For more information, visit http://corporate.miniclip.com

Linux Admin

ECLARO is a company that delivers talent. We provide fully customizable, comprehensive talent acquisition and management of seasoned professionals through a number of business models, including: Consulting, Professional Hire, Global Integrated DeliveryTM and Managed Services. Linux Admin Eclaro is looking for a Linux Admin for a contract opportunity for our client in Bath, ME. We encourage all authorized to work in the US to apply, we cannot subcontract. Job Description/Qualification: Experience with Red Hat Enterprise Linux 5/6/7 (or CentOS/Scientific Linux/Oracle Linux) Linux Server administration and troubleshooting: to include kickstart, package management, LVM2 Scripting Bash or Perl Experience with VMWare/KVM/Xen TCP/IP networking skills Basic administration and troubleshooting: Microsoft Active Directory Windows Group Policy Windows DNS, Client Strong written and verbal communication Good documentation skills Additional skills that would benefit (but not required): Citrix administration Clustering (DB and file server cluster) VMware and SAN experience a plus If interested, you may contact: Crystal T. Villanueva Technical Recruiter o: 201-942-3008 Crystal.Villanueva@eclaro.com Send a Word resume along with the six digit position ID number, your hourly rate and availability. ECLARO recruits and

manages a staff of highly skilled individuals in an array of specialized disciplines. This approach enables our clients to leverage new opportunities, respond to increased and changing demands and increase their profitability. Please visit www.eclaroIT.com to see why the Right People are The AnswerTM. Specialties: Customized solutions for Human Capital and Talent Acquisition, Permanent placement and retained search, Recruiting, Staff Augmentation, Contract Labor, Managed Services, RPO, MSP, VMS, IT solutions, management and support, offshore business process outsourcing. Equal Opportunity Employer: Eclaro values diversity and does not discriminate based on Race, Color, Religion, Sex, Sexual Orientation, Gender Identity, National Origin, Age, Genetic Information, Disability, Protected Veteran Status, or any other legally protected group status. Website: http://www.eclaro.com Industry: Staffing and Recruiting Type: Privately Held Company Size: 501-1000 employees Founded: 1999

This is a fast growing occupation in the state of Maine and has increased 15% over the past year according to Wage and Labor Data.

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.

A formal SME was conducted with the above reports and compiled in the next section of this report.

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 CPT201 course learning outcomes and objectives align with the program mission and goals. This reviewer found that the CPT201 course has listed measurable outcomes which can be stacked with other coursework. The industry sector for CPT201 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 *SOC:15-1130 Software Developers and Programmers.*. (See: http://www.bls.gov/soc/2010/soc150000.htm#15-1100)

The NCES CIP (Classification of Instructional Programs) is referenced as: *11: Computer and Information Sciences and Support Services*. (See: http://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cip=11)
This is also an accurate classification.

This course was designed for 1st-year community college students or equivalent. There are no course prerequisites listed.

The content of these course objectives aligns with the topics listed in the course syllabus and the required textbook. This alignment also correlates to items found within the Dynamic Skills Audit and Burning Glass baseline skills as listed in the labor market data.

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– The syllabus lists outcomes, but these are not sufficiently linked to unit-level objectives and assignments.

A.2 – Previous skills and knowledge are not stated. This is an introductory course, so no prerequisite skills may be applicable, but it is recommended that this be stated more clearly in the syllabus.

A.3 - Course objectives are not stated in terms that make the student activities measurable.

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

A.5 – Activities appear to be scaffolded through the course, as more content and skills are learned. The course's objectives fill an industry need within the program.

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 1st year college students should possess.		X	
B.2 Core course competencies are relevant to **industry and employer**s.		X	
B.3 Instruction, activities, and assignment in individual courses are relevant and engaging to **students**.		X	

B.1 - Course objectives align with industry expectations at the appropriate skill level, based on employee responsibilities found in current job postings.
B.2- Core competencies are relevant to industry and employers, as verified using the Burning Glass labor market data http://burning-glass.com/five-careers-where-coding-skills-will-help-you-get-ahead/)
and the Dynamic Skills Audit Summary. Student learning objectives align with the competencies expected of employees in network support fields and those listed by the Advisory Board.
B.3 - Activities and instruction defined in the course outline offer real-world application in computer programming that are beneficial to students seeking employment in this field.

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:

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 content.		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.
C.2 – The syllabus clearly explains how students will use the course materials, primarily, the required textbook.
C.3 – The materials are presented in a variety of modalities for students, and both content-focused and hands-on activities are used.
C.4 – As 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.
D.2 – The assessments are consistent with the types of activities carried out in the course and align with the objectives.
D.3 – Criteria were not shared for review, so it is unclear how any particular assignment would be graded and what exactly the students much achieve for each one. Participation guidelines are included, but no grade is tied to participation.
D.4 – The sequence of the assignments is clear, as they follow the progression of the course to build toward its outcomes. The variety of assessments is adequate, as assignments provided for review cover a range of content-focused activities, each in unique ways appropriate for the knowledge and skills being assessed.