

# Formal Evaluation and Subject Matter Expert Summary Report



## Maine is IT!

INFORMATION TECHNOLOGY  
A CONSORTIUM OF MAINE'S SEVEN COMMUNITY COLLEGES

### CTT145

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

*By  
Emporia State University*

*July 2017*

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This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was

**Course Review for:** Maine is IT  
**Course:** CTT145 – IIS Web Server Fundamentals  
**Reviewed by:** Anna J. Catterson, Ph.D.  
**Date:** June 29, 2017

**Part 1: Course Review**

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

**Comments:**

**1.1:** Even for face-to-face (F2F) courses, a link to an online course component is helpful. If there is a supplemental course, please provide information to students on how they can access this information. Also, Reviewer could not locate the name of this course anywhere on the Syllabus. Please include.

**1.2:** The purpose and structure for the course is explained in the syllabus; nice job at explaining the course direction and purpose.

**1.3:** Etiquette expectations (sometimes called “netiquette”) for any online discussions, email, and other forms of course communication were partially covered. This would relate to both F2F AND online environments. 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.
- Do not use all capital letters when composing your responses as this is considered “shouting” and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read.
- Be respectful of 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. It is best to spell out its meaning first, and 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:** Some course and institutional policies were covered in the syllabus: The attendance expectation were described. The Reviewer recommends adding a live link to these policies from the college web site/handbook.

**1.5:** Technology requirements are not indicated. Considering including that information.

**1.6:** A prerequisite/co-requisites were NOT mentioned in the syllabus.

**1.7:** Minimum technology skills were not indicated. The Reviewer recommends adding a statement expressing those expectations.

**1.8:** There is a placeholder for the faculty information. The Reviewer encourages adding a video introduction link or a short biographical sketch to the course as well – even if the course is F2F.

**1.9:** The Reviewer encourages use of asynchronous discussions outside of class. Student introductions and short bio builds a learning community.

<b>B. Learning Objectives &amp; Competencies (15 points total)</b>		
2.1 The course learning objectives, or course/program competencies, describe measurable outcomes.	3	<b>3</b>
2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	3	<b>3</b>
2.3 All learning objectives and competencies are stated clearly and written from the learner's perspective.	3	<b>3</b>
2.4 The relationship between learning objectives or competencies and course activities is clearly stated.	3	<b>3</b>
2.5 The learning objectives or competencies are suited to the level of the course.	3	<b>3</b>
<b>Total</b>		<b>15</b>
<b>Comments:</b>		
<p><b>2.1:</b> There are several learning objectives (please number to help with assessment). Most are measurable outcomes but some are not. Any outcomes that begin with "Understand" – how do you plan on measuring someone's understanding of a subject or term? Instead, have them compare/contrast, illustrate, demonstrate – something that you can assess their learning on. To better strengthen these outcomes, Reviewer suggests including the actual topic coverage and assessment under each. This is called first and second-level outcomes with objectives. Having a matrix where students can see what activities will be completed with each learning outcome is idea.</p> <p><b>2.2:</b> Yes, the activities do align with the learning outcomes, however it would be a better visual if this could be mapped for students.</p> <p><b>2.3:</b> Yes</p> <p><b>2.4:</b> A matrix would strengthen this relationship.</p> <p><b>2.5:</b> The course topics appear to be directly related to the learning outcomes.</p>		

<b>C. Assessment &amp; Measurement (13 points total)</b>		
3.1 The assessments measure the stated learning objectives or competencies.	3	<b>3</b>
3.2 The course grading policy is stated clearly.	3	<b>3</b>
3.3 Specific and descriptive criteria are provided for the evaluation of learners' work and are tied to the course grading policy.	3	<b>3</b>
3.4 The assessment instruments selected are sequenced, varied, and suited to the learner work being assessed.	2	<b>0</b>
3.5 The course provides learners with multiple opportunities to track their learning progress.	2	<b>0</b>
	<i><b>Total</b></i>	<b>9</b>
<b>Comments:</b>		
<p><b>3.1:</b> The Reviewer recommends expressing a 'crosswalk' to course learning objectives. eg, map the activity/assessment to the course objectives more clearly. The assessments/activities were indicated in very broad terms using a topical outline. Consider developing/expressing these. One example would be to provide a grading rubric to students or some sort of explanation of how projects will be graded and when feedback will be received. There must be student learning outcomes for assessment purposes. Please develop these.</p> <p><b>3.2:</b> The grading policy/rubric is stated in the syllabus. Good variety and breakdown of categories.</p> <p><b>3.3:</b> These criteria could be expressed with more detail using a descriptive rubric.</p> <p><b>3.4:</b> There was not a good variety of assessment strategies for this course. It appeared that it was either homework or a quiz/exam. Reviewer recommends more variety including group projects, interactive learning sessions and labs.</p> <p><b>3.5:</b> Reviewer was not able to locate any evidence of tracking learning progress. (e.g., Circle back activities, mastery learning pathways, etc.) However, course activities appear to build on one another - providing scaffolding.</p>		

<b>D. Instructional Materials (13 points total)</b>		
4.1 The instructional materials contribute to the achievement of the stated course and module/unit learning objectives or competencies.	3	<b>0</b>
4.2 Both the purpose of instructional materials and how the materials are to be used for learning activities are clearly explained.	3	<b>0</b>
4.3 All instructional materials used in the course are appropriately cited.	2	<b>0</b>
4.4 The instructional materials are current.	2	<b>0</b>
4.5 A variety of instructional materials is used in the course.	2	<b>1</b>
4.6 The distinction between required and optional materials is clearly explained.	1	<b>0</b>
	<b>Total</b>	<b>1</b>
<b>Comments:</b>		
<p><b>4.1:</b> There were no instructional materials provided on the course syllabus, textbook was TBD. Please ensure that this information gets added to the syllabus – important students have required and supplemental resources to help them be successful.</p> <p><b>4.2:</b> Instructional materials were not listed.</p> <p><b>4.3:</b> Non suggested.</p> <p><b>4.4:</b> Non provided.</p> <p><b>4.5:</b> Assumed. The nature of the course suggests a variety of materials will be utilized.</p> <p><b>4.6:</b> Notation of Required v. Recommended/Optional is NOT indicated.</p>		

<b>E. Course Activities and Learner Interaction (11 points total)</b>		
5.1 The learning activities promote the achievement of the stated learning objectives or competencies.	3	2
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
<b>Total</b>		<b>3</b>
<b>Comments:</b>		
<p><b>5.1</b> Yes, however could be strengthened. If they were tied directly to student learning outcomes it would be a much stronger alignment.</p> <p><b>5.2</b> There are opportunities for interactive learning and should be considered to be included in this course. It is not clear how students will interact with each other.</p> <p><b>5.3</b> A plan for feedback was not located in the syllabus. Even if this is a face-to-face course, the instructor's feedback and review policy should be expressed.</p> <p><b>5.4</b> Participation expectations are not clearly stated, other than the Attendance Policy and in the Grading categories.</p>		

### F. Course Technology (10 points total)

6.1 The tools used in the course support the learning objectives and competencies.	3	2
6.2 Course tools promote learner engagement and active learning.	3	3
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
<b>Total</b>		<b>9</b>

#### Comments:

- 6.1** The tools in the course appear to support the unit/weekly topics. Again, consider a crosswalk from the objectives to the course activities.
- 6.2** The tools promote engagement and active learning. The assignments promote active student engagement by requiring interaction with the technology to build content for assignments.
- 6.3** It is assumed the tools will primarily be provided by the college and through independent resources.
- 6.4** The course technologies are current and up-to-date for the required work.
- 6.5** The Acceptable Use Policy was clearly indicated. Consider adding a link to the Course Handbook for more information.



### 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
<b>Total</b>		<b>3</b>

#### Comments:

**7.1:** Providing students' access to technology support is very important. Do not 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. The Reviewer applauds the addition of that important information.

**7.3:** Access to the institutional academic support services is critical. Consider providing instructions/links to tutoring and other academic support services. These might include Tutoring Services, the Writing Center, Library Resources, etc.

**7.4:** As with academic support, student wellness and support is also critical. Consider providing instructions/links to the institutional student support services. These might include Career Services/Job Placement, Honors Programs, Health and Wellness, Advising, Curricular Organizations, Co-Curricular Resources, etc.

<b>H. Accessibility and Usability (12 points total)</b>		
8.1 Course navigation facilitates ease of use.	3	<b>3</b>
8.2 Information is provided about the accessibility of all technologies required in the course.	3	<b>3</b>
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	2	<b>2</b>
8.4 The course design facilitates readability.	2	<b>2</b>
8.5 Course multimedia facilitate ease of use.	2	<b>2</b>
<b>Total</b>		<b>12</b>
<b>Comments:</b>		
<p><b>8.1:</b> Yes</p> <p><b>8.2:</b> This could be strengthened to include information specific to students with physical or learning disabilities. Has the course been checked with an Accessibility Checker? Is it compatible with JAWS and/or NVDA (screen readers)? A sentence or two indicating compatibility and/or compliance would strengthen the course.</p> <p><b>8.3:</b> 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 assumes this has been considered. Certain software includes compliancy features. Certain Learning Management Systems also include accessibility checkers.</p> <p><b>8.4:</b> Implied. Consider processing this course through an ADA checker. Webaim is one such option. <a href="http://wave.webaim.org">http://wave.webaim.org</a></p> <p><b>8.5:</b> Implied. Ensure content, such as videos, are easy accessed and include either 1) captioning and/or 2) a transcript. The Reviewer did not review any multimedia elements in this course, however.</p>		

**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:**

- See Subject Matter Expert review for specific feedback relative to this finding.

**Part III: Creative Commons****Items Reviewed include:**

- All course materials presented in Creative Commons?
- Creative Common license (including graphic) is represented on course materials.

**Findings include:**

- This material is licensed under the Creative Commons Attribution 4.0 International License.
- Creative Commons graphic is included on the footer.

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

**Course:** CTT145  
**Course Name:** Web Server Fundamentals  
**Date:** June 29, 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 CTT145 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 in for graduates from an AAS in Computer Science or those completing a certificate program in computer technologies in Washington County. It was also found by this Reviewer that the skills mastered in CTT145 relate to specific job openings.
2. Current job openings list specific duties that relate to CTT145. There are several networking employment opportunities within a 50-mile radius within and outside of Washington County; this field seems to have increased over the past six months.
3. The current Advisory Board indicates CTT145 contributes to the labor market 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 CTT145 course learning outcomes and objectives align with the program mission and goals. This Reviewer found that the CTT145 course has listed measurable outcomes that can be stacked and latticed. The NAICS (Professional, Scientific, and Technical Services) industry sector for CTT140 has been categorized as: *541512: Computer Systems Design Services*. (See: <https://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=541512&search=2017%20NAICS%20Search>)

This U.S. industry comprises establishments primarily engaged in planning and designing computer systems that integrate computer hardware, software, and communication technologies. The hardware and software components of the system may be provided by this establishment or company as part of integrated services or may be provided by third parties or vendors. These establishments often install the system and train and support users of the system.

**Illustrative Examples:**

Computer systems integration design consulting services  
Local area network (LAN) computer systems integration design services  
Information management computer systems integration design services  
Office automation computer systems integration design services

Those completing this course would enter the Bureau of Labor Statistics occupation classification of *15-1140 Database and Systems Administrators and Network Architects* (See: <https://www.bls.gov/soc/2010/soc151143.htm>)

## JOB SUMMARY

### JOB TITLE: Network and Server Manager

REPORTING TO: VP of Information Systems

PERFORMANCE REVIEW PERIOD: Annually Purpose of the position

The Network and Server Manager (NSM) has the primary responsibility for managing VIP's enterprise network infrastructure (at HQ, store levels, and connections to the external environment) as well as the administration of key enterprise applications **running on Windows and VM servers**. The NSM is involved in procurement of hardware, software and services; enforcement of network and server management policies; as well as maintaining these systems up-to-date and in good working order. The role is responsible for customer satisfaction around performance, reliability, security, as well as ROI of these systems.

Responsibilities Responsibility 1 – Manage acquisition, configuration, and maintenance of VIP's LAN/WAN and Windows Servers Measurement - % discount to market on hardware and software purchases % server downtime % of network downtime Responsibility 2 – Manage LAN/WAN performance and security. Measurement - % of equipment configured with latest agreed releases/patches Number of security breaches Responsibility 3 – Establish and implement policies and procedures for LAN/WAN usage throughout the organization Measurement - Written policy documents that are updated periodically Documented processes with checklist Logs of completed checklists Responsibility 4 – Manage administration of installation, configuration and maintenance of enterprise applications. Measurement - % of applications configured with latest agreed releases/patches % of application downtime Responsibility 5 – Design, implement and oversee system backup and disaster recovery policies and procedures Measurement - Written and updated disaster recovery policies Disaster recovery drills Responsibility 6 – Keep up to speed on relevant new technology developments Measurement - Familiarity Responsibility 7 – Analyze products and recommend use of new products and services Measurement - Keeping costs down while providing a quality service Responsibility 9 – Other functions include but are not limited to personnel management and training, IT budgeting, and customer relations.

### Development Systems Administrator

The Development Systems Administrator is responsible for administering and maintaining hardware, software and databases used by development, quality assurance and release management staff. Location Yarmouth, Maine Responsibilities • Perform all tasks related to system, database and software administration on Development, QA, Performance Lab and Release Management servers. • Install, maintain and administer all servers and software related to development activities, including backups, OS and Software upgrades, etc.. • Assist with planning and maintenance of Development, QA, Performance Lab and Release Management environments. • Assist other departments, such as Development and Support with system, database, technology and deployment issues. • Provide application and systems support to Development and QA staff • Assist in designing and test deployment and installation utilities. • Maintain and develop in house administration and software deployment utilities. Qualifications • Bachelor's degree in computer science or equivalent experience. • Experience with Windows Server administration. • Experience with Server Virtualization administration. • Experience with MS SQL Server Database administration. • Team Foundation Server and Visual Studio experience desirable. • Experience with Powershell and .Net is a plus. • Strong communication and problem solving skills. • Able to learn new technology independently and quickly. Apply Online Requisition Number: 45-17-206



Burgess Technology Services is seeking an experienced **Network Engineer/System Administrator** to join our growing business. Responsibilities include remote and on-site remote support for highly technical and escalated issues. Excellent communication skills and customer services skills are of critical importance. Candidates must have experience with all versions of Microsoft Windows Server, Small Business Server, Exchange Server, VMware ESXi, Cisco, Routing, VPN's, and desktop operating systems. Salary will be commensurate with experience. Candidates must have reliable transportation and a clean driving record. Burgess offers a superb work environment with great co-workers, excellent pay and benefits for the right person. Network+ and MCP/MCSA/MCSE certifications preferred. At Burgess, you'll be part of a small, flexible team that puts clients' needs first. We encourage new ideas, and focus on identifying new technologies that will better serve our customers. Burgess Technology Services is an equal opportunity employer, and does not discriminate based on race, gender, color, ancestry, religious creed, national origin, or age

### **Senior System Administrator**

Configure and maintain applications in support of customer needs. • Install, configure and maintain a highly available VMWare environment. • Install, configure and maintain storage systems and fiber networking. • Monitor servers for stability and taking both proactive and reactive measures to correct and prevent issues • Install, configure, and administer datacenter hosted hardware and software. • Analyze system requirements and configure servers in support of customer needs, including new products or technologies. • Perform advanced monitoring, trending, capacity planning and provide recommendations for new and revised systems specifications based on analysis. • Configure and monitor antivirus systems and Windows updates. • Configure and maintain standalone and network backups. • Research and implement options for new or improved technology. • Respond to advanced customer IT tickets. • Provide escalation path for support calls from other corporate IT staff. Qualifications • Bachelor's degree in computer technology or comparable work experience. • Typically requires five or more years of hands-on IT experience. • Experience with multiple server operating systems • Experience with networking devices such as Cisco / Brocade / Extreme switches and access points. • Experience with Active Directory, DNS, DHCP and Group Policy management • Understanding of local and wide-area networks. • Ability to read and create operating system scripts to assist with repetitive tasks and customer needs. • Strong analytical and problem solving skills. • IT certifications such as VMWare VCP, Microsoft MCSE/MCSE, Cisco CCNA, and/or Network+ are desirable The ideal candidate will have advanced knowledge of: • Virtual environments (VMWare and/or HyperV) and clustering technologies • Configuring storage networks with Brocade fiber switches • Windows Server 2003, 2008 and 2012, Active Directory 2003, 2008 and 2012 • PC and server hardware • Citrix XenApp 6 • DNS, networking, firewalls, VOIP and printers • Microsoft SQL, SANs (EMC & IBM),

**Modis has an immediate job opening for a Windows System Administrator** with one of our premier clients in Bath, ME. We are seeking an experienced Windows System Administrator with extensive IT skills and certifications. If you would like to work with one of the most recognizable brands in the US, then this job could be for you.

The Windows System Administrator Job will support our client's technology group. The technology team provides creative, reliable solutions for our client's internal and external customers. They provide global services including design, engineering, installation, dispatching, repair, outsourcing and consulting, and project management for a diverse base of network, radio, and applications services supporting information technology systems and networks in industries including aviation, health care, surface transportation, and government.

The Windows System Administrator will:

- Install, investigate and resolve matters of significance with computer software and hardware equipment.
- Coordinate the installation of client department specific applications and systems.
- Determine appropriate method for installing applications and systems.
- Upgrade system software/hardware components as required to meet business needs.
- Ensure upgrades are within established parameters.
- Analyze, log, track and resolve software/hardware matters of significance pertaining to networking connectivity issues, printer, servers and applications to meet business needs.
- Perform troubleshooting to isolate/diagnose common system problems.
- Recommend course of action and implements as approved.
- Utilize standard corporate tools to record and track change and problem activities.
- Install, test, upgrade and configure system files and services to enhance performance.

Qualifications Required Experience and Skills:

- Windows Server MCSE or equivalent skills such as: Windows Server 2008 or 2012 administration and troubleshooting Microsoft Active Directory Windows Group Policy Windows DNS, DFS Strong written and verbal communication
- Good documentation skills Additional skills that would benefit (but not required): Citrix administration Microsoft Clustering (file server cluster) Scripting - PowerShell, VB VMware and SAN experience a plus

To be considered, you must apply online now and submit your resume. We are actively monitoring all applies.

Apply below! And, thank you for partnering with Modis!

**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 measurable outcomes.		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 – A.5

Learning outcomes were well written, a few should be not measurable (those with “Understanding”) and notes were made in this review to change to more measurable action verbs. Please consider a matrix to link the student learning outcomes to specific topics of coverage as well as the assessments.

## 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 <sup>st</sup> year college students should		X	
B.2 Core course competencies are relevant to <b>industry and employers.</b>		X	
B.3 Instruction, activities, and assignment in individual courses are relevant and engaging to <b>students.</b>		X	

B.1 - This course is critical in a number of fields. From all of the reviews that have been completed (over 50), this course, by far has the most active jobs and employment opportunities available for the State of Maine. In fact, Reviewer has seen a tremendous amount of growth in this field and encourages **additional partnerships with Modis** – they have had several recent hires and continue to expand their opportunities.

B.2 - Yes. Core competencies are relevant to industry and employers and evidence of this was verified using the Burning Glass labor market data relative to STEM occupations (<http://burning-glass.com/research/stem/>) and the Dynamic Skills Audit Summary. This Reviewer took the interview summaries from Advisory Board members, current job openings and descriptions and matched them to the course description.

B.3 – Yes. Activities and instruction defined in the course outline offer real-world application in design and modeling that are required of any person 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:

This course was lacking important information related to instructional materials, in fact, there was no materials suggested or indicated.

### 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			X
C.2 The purpose of the instructional materials is clearly explained.			X
C.3 The instructional materials present a variety of perspectives and			X
C.4 The instructional materials are appropriately designed for the level of the			X

## 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

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		X	
D.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation and are tied to the course grading			X
D.4 The assessment instruments (that can be delivered) are sequenced, varied, and appropriate to the content being assessed.		X	

### Findings include:

Assessment strategies use established ways to measure effective learning, evaluate student progress by reference to stated learning objectives, and are designed to be integral to the learning process.

### Table: Measurement of effective learning

D.1 - Yes. Grading is broken into several components however there is very little variety (Quizzes/Exams – really the same type of assessment).

D.2 - Yes. This is somewhat implied. The assessments and activities appear to align with stated course- level objectives. This can be strengthened through describing this alignment/crosswalk.

D.3 – No. Supporting evidence was not provided that indicates the process for evaluating student work.

D.4 – No varied assessment instruments.