

Formal Evaluation and Subject Matter Expert Summary Report



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

CIS118

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

*By
Emporia State University*

EMPORIA STATE
UNIVERSITY
■ INFORMATION TECHNOLOGY

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

Course Review for: Maine is IT
Course: YCCC CIS118 Info Tech Fundamentals
Reviewed by: Mark Summey
Date: 12/22/16

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 | 2 |
| 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 | 8 |
| Comments: | | |
| <p>1.1: A link to the LMS was provided. No instructions are given to help students access the course or its contents. Consider adding a direct course link.</p> <p>1.2: The purpose of the course is clearly and succinctly stated. The weekly breakdown of both in-class and on-your-own tasks clearly conveys the course structure.</p> <p>1.3: Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication should be covered. <i>Examples include:</i></p> <ul style="list-style-type: none"> • 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) 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:** Late/missing assignments and academic dishonesty were discussed.
- 1.5:** Minimum hardware/software requirements were listed.
- 1.6:** Prerequisite knowledge and competencies are not listed.
- 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 explicitly 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 | 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 | 1 |
| 2.3 All learning objectives and competencies are stated clearly and written from the learner's perspective. | 3 | 2 |
| 2.4 The relationship between learning objectives or competencies and course activities is clearly stated. | 3 | 3 |
| 2.5 The learning objectives or competencies are suited to the level of the course. | 3 | 3 |
| Total | | 12 |

Comments:

2.1: The course learning objectives are measurable.

2.2: The course outline topics that are listed align with the course-level objectives, but these unit-level objectives are not listed to allow a determination of whether they are measurable. When listing the activities, consider explaining the expected student outcomes for each one.

2.3 : Course-level learning objectives and competencies are clearly stated from a student perspective, but unit-level competencies that students will accomplish are not clear. Course content is outlined but specific skills within the topics are not listed.

2.4: Activities listed align with the course-level objectives.

2.5: The objectives are appropriate for the course.

| C. Assessment & Measurement (13 points total) | | |
|---|---|----------|
| 3.1 The assessments measure the stated learning objectives or competencies. | 3 | 2 |
| 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 | 0 |
| 3.4 The assessment instruments selected are sequenced, varied, and suited to the learner work being assessed. | 2 | 1 |
| 3.5 The course provides learners with multiple opportunities to track their learning progress. | 2 | 2 |
| <i>Total</i> | | 8 |
| <p>Comments:</p> <p>3.1: There are five assignments provided. The syllabus refers to exams and projects but the number and the focus of these exams/projects is not provided.</p> <p>3.2: Course grading policy is clear and succinct.</p> <p>3.3: No rubrics or grading criteria were provided for the assignments.</p> <p>3.4: The assignments are varied and align with the course outline. There was no mention of the focus of the exams.</p> <p>3.5: Five assignments and an unknown number of exams are provided to track learning progress.</p> | | |

| 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 | 0 |
| 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 | 1 |
| 4.6 The distinction between required and optional materials is clearly explained. | 1 | 1 |
| Total | | 9 |
| Comments: | | |
| <p>4.1: The instructional materials are available on the LMS. The contents align with the weekly topics listed in the syllabus.</p> <p>4.2: Materials and purposes for learning are not explained in the syllabus. Consider including brief descriptions in the syllabus</p> <p>4.3: The only material listed is the required textbook.</p> <p>4.4: The textbook was published in 2015, making it current and its listed technology applications align with the course assignments.</p> <p>4.5: Not able to confirm the variety of instructional materials, although the syllabus lists assignments, quizzes, projects.</p> <p>4.6: As the required textbook appears to contain the entirety of the course content, the distinction between required and optional materials is adequately made.</p> | | |

| 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 |
| <i>Total</i> | | 4 |
| <p>Comments:</p> <p>5.1: Activities apply a hands-on approach to achieve the objectives.</p> <p>5.2: It is not evident that learners are interacting with anything or anyone other than the content and the prescribed activities.</p> <p>5.3: No plan is provided for classroom response time or assignment feedback.</p> <p>5.4: No requirements are listed for learner interaction.</p> | | |

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 hardware/software support the objectives and competencies.

6.2: The course tools are appropriate to promote engagement.

6.3: All required technologies are readily available.

6.4: The technologies are current.

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 | 2 |
| 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 | | 2 |

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 general ADA compliance statement is made, along with a statement directing any student with special needs to contact the correct YCCC office, with the contact information provided. No listing of broader policies is included. It is recommended that a link to YCCC's disability services information be included.
- 7.3:** No academic resources are listed. 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:** Other than contact information to report and address discrimination, 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.

| H. Accessibility and Usability (12 points total) | | |
|---|---|----------|
| 8.1 Course navigation facilitates ease of use. | 3 | 0 |
| 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 | 0 |
| 8.4 The course design facilitates readability. | 2 | 0 |
| 8.5 Course multimedia facilitate ease of use. | 2 | 0 |
| Total | | 0 |
| Comments: | | |
| <p>8.1: Unable to review this item. Course navigation should be designed to minimize the number of clicks necessary to access information.</p> <p>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.</p> <p>8.3: Unable to review this item. In addition to varying the modality of content through text, audio, and video instruction, 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. For videos, a transcript or videos that are captioned are required as an effective means of communication.</p> <p>8.4: Unable to review this item. 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.</p> <p>8.5: Unable to review this item. When possible, embedding multimedia within the course LMS ensures ease of access and limits student issues that may arise when leaving the LMS to access outside resources.</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.

- See Subject Matter Expert review for specific feedback.

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:

Creative Commons and attributions were documented.

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

Course: YCCC: CIS118
Course Name: Information Technology Fundamentals
Reviewed by: Anna J. Catterson, Ph.D.
Date: January 4, 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 CIS118 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 NMCC for graduates from an AAS in Information Technology or those completing a certificate program. The CIS118 course is a general overview of the many areas of computer technology therefore, several occupations were found that required technology or computer skills however, most of those jobs also required an additional skill set. This course focuses on the all aspects related to technology including hardware, software, internet, World Wide Web, networking and security. The State of Maine Judicial Branch is currently seeking an Assistant Clerk which requires a basic knowledge of computer foundations; this course will be a good fit within this occupation.
2. The Assistant Clerk position opening for the State of Maine Judicial Branch describes the position: "This is responsible clerical work in a Clerk's Office. Extensive contact with the public in person or by phone, requires the incumbent to utilize excellent customer service skills. Office responsibilities require extensive use of various computer systems and office equipment, as well as knowledge of basic office procedures." The CIS118 course is a good fit for this occupation.

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 CIS118 course learning outcomes and objectives align with the program mission and goals. This reviewer found that the CIS118 course has listed measurable outcomes which can be stacked and latticed with other coursework. The industry sector for CIS118 has been categorized as: *541519 Other computer related services*. (See: <http://naics-codes.findthedata.com/1/1587/Other-Computer-Related-Services>). The reviewer finds that this classification is correct.

Those completing this course would enter the Bureau of Labor Statistics occupation classification of *15-1190, Computer Occupations, All Other*. (See: <https://www.bls.gov/soc/2010/soc151190.htm>)

The NCES CIP (Classification of Instructional Programs) is referenced as: *11.0101: Computer and Information Sciences, General*. (See: <https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=88075>) This is also an accurate classification.

This course was designed for 1st-year community college students or equivalent.

Listed course objectives include:

1. Explain how computers use numbers use data to represent all data.
2. Describe the major components within a personal computer.
3. Utilize word processing software to author and properly format academic papers.
4. Utilize applications to manipulate simple spreadsheets using functions and charts.
5. Compare the differences between applications and operating systems.
6. Describe the path information flows between a web server and a web browser.
7. Demonstrate how small computer programs are written.
8. Explain the basics of how to protect a computer from a virus or attack.
9. Evaluate the appropriateness of various options to match both budget and need.

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

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 - A. 5

Course outcomes align with the program outcomes and are measurable. The outcomes are appropriate for first-year students. The reviewer found a direct correlation between the assignments and the course objectives for Assignment # 3, 5 and 7 (Course Obj. 4). However, for Assignment 1 & 2, *the reviewer could not find a direct correlation between the assignment and the course objectives.*

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 students. | | X | X* |

- B.1 - Course objectives align with industry expectations at the appropriate skill level.
 B.2 - Core competencies are relevant to industry and employers. *Two assignments (1 & 2) were not a direct correlation to course objectives. Reviewer suggest modifying the question that students are asked to research to a more reflective critical thinking question related to one of the course objectives.
 B.3 - Activities and instruction defined in the course outline offer real-world application.

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:

Instructional materials consist of lectures and hands-on demonstrations. Instructional materials align 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.

C.2 – The purpose the instructional materials was well explained in the assignment details and descriptions. Reviewer suggest adding the course objective to the assignment for a clearer alignment of skills learned.

C.2 – There is a good variety of assignments. Reviewer suggest using Blackboard as a supplement (especially instead of emailing assignments). It is best practice to keep assignments and projects in the LMS.

C.3 – 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

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 – Assessments are linked to course grades which are consistent with course activities and resources.

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. Reviewer also did not find any participation amongst peers figured into the grades.

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 each assessment is adequate, as each activity may be procedurally-identical, although each will involve a unique technology application. It is reasonable to assume that each week's scenario activity involves creating something with that unit's listed technology, which would make each assignment appropriate to the content. On the Course Outline, the reviewer suggests adding the actual assignments and projects/quizzes that will be assigned with due dates and their total points.