Formal Evaluation and Subject Matter Expert Summary Report

MIT605

Submitted to Maine is IT in fulfillment of the
TAACCCT grant requirements
By
Emporia State University

November 2016

Course Review for: Maine is IT
Course: NMCC: MIT605-Becoming IT – A+ Certification
Reviewed by: Anna J. Catterson, Ph.D.
Date: 11/22/16

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	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	0
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		4

Comments:

1.1: No link to the LMS or instructions are given to help students access the course or its contents. Consider adding a direct course link.

1.2: The purpose of the course is clearly and concisely stated. The weekly breakdown of both in-class and on-your-own tasks clearly conveys the course structure. The review appreciations the Topical Outline that lists and categorizes each of the topics in the order that they will be covered.

1.3: Etiquette expectations (sometimes called "netiquette") for online discussions, email, and other forms of communication should be covered. *Examples include:*
- Be sensitive to the fact that there will be cultural and linguistic backgrounds, as well as different political and religious beliefs, plus 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

Reviewer recommends placing the Netiquette statements in the syllabus, this will assure the expectations of the student.

1.4: Course and institutional policies that students must follow are not included. These would include policies on absences, academic dishonesty, late work, etc. If these are not fully explained in the syllabus, a link to the policies should be provided.

1.5: Textbook, Lab Manual and Test Vouchers are listed as a requirement; reviewer noted.

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	**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	**1**
2.3 All learning objectives and competencies are stated clearly and written from the learner's perspective.	3	**1**
2.4 The relationship between learning objectives or competencies and course activities is clearly stated.	3	**1**
2.5 The learning objectives or competencies are suited to the level of the course.	3	**1**
Total		**5**

Comments:

2.1: The reviewer noted that there were not any direct course objectives; there was a narrative however, not specific course objectives with outcomes that could be measured. Creating learning objectives that can be aligned to the program objectives and then the institutional mission statement is idea. Reviewer recommends listing the course objectives and providing direct language that is clear and measurable.

2.2: The Topical Outline is an excellent way to evaluate how the course is structured; when listing the week's activities, consider explaining the expected student outcomes for each one.

2.3 : No specific learning objectives have been described. Explain what the student will learn and how it will be measured. The reviewer did not a narrative of some expectations listed under course objectives however, they need to be more descriptive and directly align with program matrix.

2.4: The narrative provided does suit the level of the course; however they are not measurable and should be revised so it can be clearly aligned. The Topical Outline could be clear learning objectives that you could use; reviewer suggests using this language as described by the A+ certification exam.

2.5: See above comments related to learning objectives.

C. Assessment & Measurement (13 points total)

3.1 The assessments measure the stated learning objectives or competencies.	3	**0**
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	**2**
3.5 The course provides learners with multiple opportunities to track their learning progress.	2	**2**
Total		**7**

Comments:
3.1: Course does not link the course outcomes to assessments. Outcomes need to be measurable and directly related to assessments.
3.2: Course grading policy is listed as Unit tests 30%, Final Exam 20% (CompTia A+ Cert), Homework 20%, Labs 30% - so noted.
3.3: No criteria are given for unit-level evaluation or the summative Certification exam.
3.4: Yes, reviewer noted.
3.5: Each unit has multiple "Scenarios," which can reasonably be assumed to serve as 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	**1**
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	**2**
4.6 The distinction between required and optional materials is clearly explained.	1	**2**
Total		**9**

Comments:
4.1: Materials are all copyright protected and are not able to be reviewed. The table of contents for the required textbook can be viewed online @ https://certification.comptia.org/certifications/a#examdetails. The contents align with the weekly topics listed in the syllabus.
4.2: Materials and purposes for learning are not explained. As recommended in the Assessments section of this review, describing the activities conducted in each unit would provide this clarity without violating copyright rules. Objectives should align to direct assessments.
4.3: Yes, materials provided and described.
4.4: Yes
4.5: Yes, the labs provide an opportunity for hands-on applicable experience and an active-learning scenario.
4.6: Yes

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	**3**
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		**6**

Comments:
5.1: Activities apply a hands-on approach to achieve the objectives.
5.2: Yes, learners are interacting through active learning and problem based 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	2
6.4 The course technologies are current.	1	1
6.5 Links are provided to privacy policies for all external tools required in the course.	1	0
Total		9

Comments:
6.1: Tools specified in description of course, noted.
6.2: Inferring that standard coding hardware/software are used, these are appropriate for engaging students in active learning tasks.
6.3: Yes
6.4: The Certification exam is available through CompTIA and is 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 NMCC office, with the contact information provided. No listing of broader policies is included. It is recommended that a link to NMCC'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:

8.1: Unable to review this item. Course navigation should be designed to minimize the number of clicks necessary to access information.

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.

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.

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.

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.

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: The syllabus includes Creative Commons license information and the corresponding CC graphic.

Course: NMCC: MIT605
Course Name: Becoming IT – A+ Certification
Reviewed by: Anna J. Catterson
Date: November 22, 2016

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 MIT605 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. It was also found by this reviewer that the skills mastered in MIT605 relate to specific job openings.
2. Current job openings list specific duties that relate the A+ certification course and specifically list the A+ certification as a requirement for applying for positions.
3. The MIT605 course offers a final exam that is proctored through CompTia and is also a national certification; A+ Certification Exam.

Reviewer found three job openings at one company within a 50-mile radius of Presque Isle, ME. Mediu, LLC has three current opportunities for Genesys Consultants, Senior Genesys Consultants and a Software Engineer. All three openings require A+ certification. Reviewer also noted that for these positions, a Bachelor degree was required. No other openings noted (as of 11/22/16).

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 MIT605 course learning outcomes and objectives were not clearly stated or measurable. The narrative "Principles of computer servicing including system configuration, memory interfacing, CPU and support circuits, keyboards, hard drives – SATA – SCSI – IDE, floppy drives and modems" does not align with specific course learning objectives. Reviewer suggest, instead to offer something like this as a learning objective:

On course completion, you will be able to:
- Identify types and characteristics of PC, laptop, and mobile device components, including motherboard, CPU, memory, and storage, input and output devices.
- Install, configure, and troubleshoot peripheral devices and system components.
- Install, configure, and troubleshoot print devices.
- Install, configure, and troubleshoot wired and wireless LAN links and internet access devices.

These learning outcomes were taken directly from the CompTIA. These are more specific, measurable outcomes that should align to program outcomes.

The industry sector for MIT605 has been categorized as: *541511 Custom Computer Programming Services*. (See: http://naics-codes.findthedata.com/l/1584/Custom-Computer-Programming-Services) The reviewer finds that this classification is most correct.

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

The NCES CIP (Classification of Instructional Programs) is referenced as: *11.1002: System, Networking, and LAN/WAN Management/Manager*. (See: http://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=87262) This is also an accurate classification.

This course was designed for 1st-year community college students or equivalent. There are no course prerequisites listed, and the exam-preparation materials provided from Microsoft begin at a very basic level.

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 – Learning outcomes need to be clearly identified and mapped to assessments. Examples given above.

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 not are measurable.

A.4 – See A.1

A.5 – Activities appear to be scaffolded through the course, building pieces of a project each week, although this is only inferred by the reviewer and not explicitly stated. The skills mastered in this course serve as prerequisites to other computer science courses offered in the program. 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		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, as they are derived directly from the current certification exam.

B.2 - Core competencies are relevant to industry and employers, as verified using the Burning Glass labor market data (http://burning-glass.com/research/coding-skills/) and the Dynamic Skills Audit Summary. Student learning objectives align with the competencies expected of new hires and certification of the A+ exam was noted as a requirement from employers.

B.3 - Activities and instruction defined in the course outline offer real-world application in programming and coding languages 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:

Instructional materials were not made available for review due to the copyright held by the publisher, although the contents of the required textbook were reviewed online and other elements reviewed including the CompTIA website. Unit-level objectives and activity descriptions should be added to clearly show students the purpose of each assignment.

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 – Because there are no clear learning outcomes, instructional materials, methodologies and assessment could not be verified.

C.2 – Explanations are not given to clarify how the materials will be used and what types of activities will be performed by students in each "scenario" assignment.

C.3 – Without seeing the course materials, this reviewer is unable to determine their variety regarding perspective and approach. The technology content varies throughout the course, which would lead to a variety of activities, but the presentation of content and performance of lab experiences may occur identically and unvaried throughout the course.

C.4 – Because the materials align with appropriate course outcomes, they are a good fit for the level of course. This material was a direct reflection of the CompTIA certification exam.

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:

While the CompTIA A+ exam is the final for the course, this reviewer appreciates the additional student evaluation and grading policies. This will allow a student to receive some merit even if the final exam is not successfully completed. The grading percentage breakdown is fair and clear.

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 should link directly to learning objectives and vice versa.
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. Especially if these activities will not contribute to the final grade, the purpose for each one should be made clear to students. Describing what will be done in each assignment and how it contributes to the course outcomes will serve this purpose and motivate students to complete these ungraded activities.
D.4 – 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.