

Subject Matter Expert Summary Report



Maine is IT!

INFORMATION TECHNOLOGY
A CONSORTIUM OF MAINE'S SEVEN COMMUNITY COLLEGES

MIT6xx
MS SQL Database Admin

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

*By
Emporia State University*

November 2016

EMPORIA STATE
UNIVERSITY
■ INFORMATION TECHNOLOGY



This workforce solution was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The solution was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties or assurances of any kind, express or implied, with respect to such information on linked sites, and including, but not limited to,

The accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership. by Anna J. Catterson, Ph.D., Emporia State University.

Course Review for: Maine is IT
Course: NMCC MIT6xx MS SQL Database Admin
Reviewed by: Mark Summey
Date: November 4, 2016

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	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	5
Comments:		
<p>1.1: No link to the LMS was provided. Consider adding instructions on how to access the course in the LMS. Consider adding the link to the actual course.</p> <p>1.2: The purpose and structure for the course was explained in the syllabus.</p> <p>1.3: Etiquette expectations (sometimes called “netiquette”) for online discussions, email, and other forms of communication should be covered. Examples include:</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 just differences in general. • Use good taste when composing your responses in Discussion Forums. Swearing and profanity is also part of being sensitive to your classmates and should be avoided. Also consider that slang can be misunderstood or misinterpreted. • Don’t use all capital letters when composing your responses as this is considered “shouting” on the Internet and is regarded as impolite or aggressive. It can also be stressful on the eye when trying to read your message. • Be respectful of your others’ views and opinions. Avoid “flaming” (publicly attacking or insulting) them as this can cause hurt feelings and decrease the chances of getting all different types of points of view. • Be careful when using acronyms. If you use an acronym it is best to spell out its meaning first, then put the acronym in parentheses afterward, for example: Frequently Asked Questions (FAQs). After that you can use the acronym freely throughout your message. • Use good grammar and spelling, and avoid using text messaging shortcuts. <p>1.4: Course and institutional policies were not covered in the syllabus.</p> <p>1.5: Technology requirements were stated in the syllabus.</p>		

1.6: Prerequisite knowledge and competencies were not covered in the materials.

1.7: Minimum skills were not covered in course materials.

1.8: Even in a face-to-face course, it is desirable to have an instructor introduction/biography available for students to access online. A short introduction with some personal information will humanize the instructor in an online course and allow students to access the information at any time in a face-to-face course.

1.9: A discussion thread is not provided for students to communicate, informally, with each other outside of the class meetings.

B. Learning Objectives & Competencies (15 points total)

2.1 The course learning objectives, or course/program competencies, describe outcomes that are measurable	3	3
2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	3	3
2.3 All learning objectives and competencies are stated clearly and written from the learner's perspective.	3	3
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		15

Comments:

2.1: The course learning objective are measurable.

2.2: The module/unit learning objectives are measurable consistent with the course level competencies.

2.3: The objectives clearly state what the learner is to accomplish.

2.4: The course activities clearly relate to the learning objectives.

The course is a copyrighted certification from the Microsoft corporation. The rater assumes the content is current, up-to-date, and relates to the desired competencies for the certification.

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	3
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		13

Comments:

3.1: The assessments align with the learning objectives.

3.2: The grading policy is stated in the syllabus.

3.3: Descriptive criteria are provided for each assessment in the course. The criteria are aligned with the grading policy.

3.4: The assignments are varied and aligned with the objectives for each week.

3.5: There are multiple opportunities to track progress.

The course is a copyrighted certification from the Microsoft corporation. The rater assumes the assignments, assessments, and evaluation are current, up-to-date, and relates to the desired competencies for the certification.

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: The instructional materials align with the unit objectives stated in the syllabus.

4.2: The purpose of the instructional materials and their use in the course is explained and aligns with each unit assignment.

4.3: The instructional materials were properly cited.

4.4: The instructional materials are current.

4.5: The instructional materials vary by unit and assignment.

4.6: The optional materials are clearly noted.

The course is a copyrighted certification from the Microsoft corporation. The rater assumes the instructional materials are current, up-to-date, and related to the desired competencies for the certification.

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	3
5.4 The requirements for learner interaction are clearly stated.	2	2
Total		11

Comments:

5.1: The learning activities directly support the course/unit learning objectives.

5.2: There are opportunities for interactive learning.

5.3: The feedback plan is clearly stated.

5.4: The requirements for class participation are stated in the syllabus.

The course is a copyrighted certification from the Microsoft corporation. The rater assumes the content includes learning activities related to stated objectives

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	1
Total		9

Comments:

6.1: The tools in the course support the unit objectives. The assignments clearly state what tools/applications are needed to successfully complete the work.

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: The technologies are readily available. A Google search for 'Eclipse Software' (required for assignment 1), returned a link for access to downloads for the software.

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

6.5: Privacy policies are available.

The course is a copyrighted certification from the Microsoft corporation. The rater assumes the course technology requirement is current, up-to-date, and relates to the desired competencies for the certification.

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

7.2: The syllabus contains an excerpt from the institution website pertaining to accessibility. Consider providing a link to the site or instructions for students to access the services.

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

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

The course is a copyrighted certification from the Microsoft corporation. The rater assumes Microsoft provides links to learner support.

H. Accessibility and Usability (12 points total)

8.1 Course navigation facilitates ease of use.	3	3
8.2 Information is provided about the accessibility of all technologies required in the course.	3	3
8.3 The course provides alternative means of access to course materials in formats that meet the needs of diverse learners.	2	2
8.4 The course design facilitates readability.	2	2
8.5 Course multimedia facilitate ease of use.	2	2
Total		12

Comments:

8.1: Make sure navigation is easy and intuitive (minimum clicks to reach destination).

8.2: If students must download/install technology other than the LMS, make sure clear instructions are provided.

8.3: Text files, audio files, video files. Consider multiple delivery systems for course materials. The Americans with Disabilities Act requires institutions to make accommodations for student who identify as having a disability. Work closely with your institution's office for disability services to identify resources to assist in making your course ADA compliant.

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

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

The course is a copyrighted certification from the Microsoft corporation. The rater assumes the accessibility and usability provided by Microsoft is compliant with best practices.

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.

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: MIT6xx
Course Name: MS SQL Database Administration
Reviewed by: Robert Gibson, EdD
Date: November 15, 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 MIT6xx 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 Aroostook County 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 MIT6xx relate to specific job openings.
2. Current job openings list specific duties that relate the SQL Certification course.

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 MIT6xx course learning outcomes and objectives align with the program mission and goals. This reviewer found that the MIT6xx course has listed measurable outcomes which can be stacked and latticed. The industry sector for MIT6xx 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:15-1150 Computer Support Specialists*. (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 level students or equivalent. This reviewer found that there are no prerequisites for this course.

Course objectives include:

1. Describe core database administration tasks and tools.
2. Install and configure SQL Server 2014.
3. Configure SQL Server databases and storage.
4. Plan and implement a backup strategy.
5. Restore databases from backups.
6. Import and export data.
7. Monitor SQL Server, along with trace, manage, and audit server activities.

These course objectives have been aligned to the course outline and referenced in specific assignments; the reviewer finds this extremely helpful and to be a direct correlation to the Dynamic Skills Audit and Burning Glass baseline skills as listed in the labor market data. Also, these objectives align to the Microsoft SQL Server 2014 Certification Exams located at <https://www.microsoft.com/en-us/learning/exam-list.aspx>

- [70-461: Querying Microsoft SQL Server 2012/2014](#)

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 - MIT6xx articulates specific learning outcomes that directly map to the Querying Microsoft SQL Server 2012-14 Certification. The assessment of these can easily be mapped and reported on.

A.2 - This course has stated prerequisites and is non-credit.

A.3 - Course objectives are measurable.

A.4 - Learning objectives are aligned to the industry certification for Querying Microsoft SQL Server 2012-14 Certification.

A.5 - Activities listed in MIT6xx were noted in the Querying Microsoft SQL Server 2012-14 Certification requirements. Lessons and materials are provided by Microsoft.

****Reviewer Note:** While the course outcomes are clearly stated and contain very specific measurable measures, it would also be recommended to include the program mission or goals in the course syllabus for clear assessment measuring. A deeper assessment could possibly be conducted that would match the course learning outcomes to specific program outcomes (or certificate). This would illustrate a direct impact on student learning.

B. Relevancy

Items Reviewed include:

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

Findings include:

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

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

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

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

B.1 - Yes. The specific course competencies clearly represent industry expectations and also are current and relevant.

B.2 - Yes. Core competencies are relevant to industry and employers and evidence of this was verified using the Burning Glass labor market data (<http://burning-glass.com/marketwatch-half-high-paying-jobs-america-now-require-skill/>) and the Dynamic Skills Audit Summary. Burningglass indicated that half of the high-paying jobs in American now require a skillset in SQL. This reviewer took the interview summaries from Advisory Board members, current job openings and descriptions and matched them directly to all ten of the listed course objectives. More than 76 SQL jobs were identified in Maine via LinkedIn (attached). More than 144 SQL jobs were identified in Maine via Monster.com (attached); More than 15 jobs were identified in Maine via Indeed.com (attached).

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

Instructional materials being delivered achieve stated course objectives and learning outcomes (*note: all program/course materials are deliverable under Microsoft licensing*). A formal course review was conducted that address more specifically course content and instructional design processes. However, in this SME report, specific findings in this section relate specifically to the overall instructional materials which contribute to the ten specific course outcomes.

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		X	
C.4 The instructional materials are appropriately designed for the level of the course.		X	

C.1 - Yes. The course outline for MIT6xx highlights weekly activity that maps directly to the seven course objectives. Specific assignments are indicated in the syllabus.

C.2 - No. The syllabus does not articulate the purpose of the course materials.

C.3 - Yes. A variety of projects were identified. The reviewer recommends small group projects to satisfy particular learning outcomes.

C.4 - Yes. The rigor matches 1st year college entry students. Reviewer also noted the rigor would be acceptable for all students from all demographics.

There were not specific points indicated for activities. This reviewer recommends defining those activities and activity points.

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:

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. The reviewer compared and contrasted the twelve learning outcomes listed for MIT6xx to effect, best practices in assessing student learning. Those items have been identified and listed in the table below.

Standard Reviewed	N/ A	Satisfactory	Not Satisfacto
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

Table: Measurement of effective learning

D.1 - Yes. Grading is based on passing the Querying Microsoft SQL Server 2012-14 Certification.

D.2 - N/A. This is delivered as a capstone course certification exam.

D.3 – Yes. The reviewer found specific and descriptive criteria that was provided for the evaluation of student work in the form of Labs, but no visual representation of how the course work ties directly into the grading policy. (Other than successfully passing the Querying Microsoft SQL Server 2012-14 Certification.)

D.4 – No. The reviewer did not find any specific or descriptive criteria that was provided for the assessment instruments related to student work (other than Pass/Fail), and no visual representation of how the course assessment strategy ties into the grading policy.

