Formal Evaluation and Subject Matter Expert Summary Report

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

CMIT110

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

EMPORIA STATE
UNIVERSITY
INFORMATION TECHNOLOGY

February 2017

Course Review for: Maine is IT
Course: SMCC CMIT110 – Database Fundamentals
Reviewed by: Anna J. Catterson, Ph.D.
Date: 2/23/17

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	1
1.5 Minimum technology requirements are clearly stated and instructions for use provided.	2	0
1.6 Prerequisite knowledge in the discipline and/or any required competencies are clearly stated.	1	1
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:

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. Reviewer could not locate any link to the LMS, particularly.

1.2: The purpose of the course is stated on the course syllabus. The additional time outside of class was noted. Reviewer found this helpful for students wanting to know clear expectations.

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.

1.4: Course and institutional policies that students are incomplete. Reviewer noted the attendance policy and the pay-for-print service but there were no other institutional policies posted to the syllabus. Reviewer recommends including links to student handbooks and other required policies. <Side note – all of the font for the entire syllabus, lesson plans and final project are different. Its good practice to use the same font for all sections of the material including font size>. Screen readers find it difficult to read varied fonts and sizes.

1.5: Reviewer found no mention of technology requirements. Please ensure to include what technology skills they should know before taking the course. Don't assume that if the co-requisites have been met they will have the adequate technology skills. This could be email communication to data entry. Provide a statement of minimum technology requirements and expectations.

1.6: Prerequisites are listed.

1.7: Minimal skills for students entering the course are not listed. However, skills are implied in the listed prerequisite courses. Consider listing the specific Co-requisite skills. This is good practice and helps the student identify with what skills they may need to improve upon before taking the course.

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	**2**
2.2 The module/unit learning objectives or competencies describe outcomes that are measurable and consistent with the course-level objectives or competencies.	3	**2**
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	**2**
2.5 The learning objectives or competencies are suited to the level of the course.	3	**3**
Total		**13**

Comments:

2.1: There is some confusion related to the learning outcomes. Reviewer notes the course objectives/ACM learning outcomes, however, it is not clear to the student what ACM stands for or the numbers to the left and what they represent. Reviewer assumes this is the Association of Computer Machining (ACM). If these are outcomes that you are following, Reviewer suggests making it clear to why these outcomes are industry standard and why they are being included. If your assessment is primarily measured by the 6 outcomes on the following page, that should be made clear to the students. The syllabus is unclear and undefined as far as the outcomes are considered. NOTE: There are some formatting issues with the ACM outcomes. Reviewer suggest formatting all the same, missing bold on last outcome (43-35). Also, remove "An ability to…" and just begin the sentence with "Demonstrate", "Function" and "Read". UNLESS these are taken from the ACM, then you will want to cite this resource at the end of the syllabus where these came from. Remember to always cite external resources.

2.2: Weekly topics that are listed align with the course-level objectives. Consider mapping them by providing the outcome number in the table space for a more clear alignment.

2.3 : Course-level learning objectives and competencies are clearly stated from a student perspective.

2.4: Activities listed align with the course-level objectives. Noted later in this report is the group activities; glad to see this included in the weekly learning topics in addition to the text.

2.5: Objectives are designed to align with outcomes. See note from 2.1 and clarify the outcomes.

C. Assessment & Measurement (13 points total)		
3.1 The assessments measure the stated learning objectives or competencies.	3	**1**
3.2 The course grading policy is stated clearly.	3	**1**
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	**0**
Total		**3**

Comments:

3.1: The syllabus does not list all of the assessments out with their point values. However, Reviewer did have an opportunity to review the lesson plans provided. Here are some comments and feedback regarding the lesson plans (referenced hereafter as LP):

 LP1 – Be consistent with formatting, bold all the way through the text? Instead of saying 'Google', Reviewer suggests a more formal written direction.< 1. Open a web browser and type in the URL http://www.google.com. Using the filter OR Google Scholar application, conduct a search for the term Database. After you conducted your search, write down how many databases you have used this week. > Also, how do students submit? Is there a rubric for this assignment? Please be sure to include a rubric for all lessons and directions on how they are supposed to turn it in.

 LP2 – Provide clearer directions on how a student is to install a client. Cite the resources provided and include a rubric for this lesson, all lessons should have a grading rubric attached.

 LP3 – Include page numbers on the first numeric bullet. Include rubrics for the Level 1 and 2 exercises; what are the expectations for these exercises? The reviewer appreciates the collaborative group project that is listed for Lab 1. "Each student will create their own copy on paper." – This is confusing and not clear to students. Are they to print the assignment and submit for the instructor to sign? Try to use specific language that is written in structured English (Step 1, 2, 3, etc.). This will help students identify exactly what is required of them.

 LP4 – Several different fonts throughout this Lesson. Reviewer did not find a transcript or captioning for the video. How will students with varying learning styles or students with disabilities be able to access?

 LP5 – No captions or transcripts found; page numbers need to be added on #1. Also, include grading rubric for all lessons.

 LP6 – Page numbers needed for #1, Rubrics needed, no captioning or transcript provided for YouTube link.

 LP7 – For this particular lesson, there is a reference to "Read the One to Many document below", however, there was no link to the document. If this is in the LMS, a link needs to be provided. This lesson should be revised. The One to Many Relationship description indicates that it was done as a group activity however only suggests that a Blackboard discussion may be helpful. In order for group projects to be successful, they need clear direction, should they participate or not? Do they get points for participating? A grading rubric that clearly lists the requirements and expectations of group projects will enable students to be successful. The directions do not flow well for this assignment. The Youtube links are long, consider using Bit.ly to shorten or simply embed the video in the document to provide it electronically. Ensure that you have captions and transcripts for ALL videos. Links for more information or reference to Enforce Referential Integrity should be included. Cite all sources at the bottom of the lesson for student to reference.

 LP8 – No clear directions posted; only links and referenced materials from textbook. Grading rubric should be supplied. YouTube video does not contain captions/transcripts.

 LP9 – Same comments as LP8, very generic To-Do list, not a lesson with complete directions and references for student to be successful.

LP10 – Instead of telling students to "Look-up", encourage more critical thinking by stating "Explore and research" or "Compare and Contrast". Channel their inner-Sherlock by allowing them opportunities to explore on a deeper level. Include a grading rubric.

LP14 – Include captions/transcripts for the video. Give students a grading rubric to what the expectations are.

Final Project – This should be in a grading rubric. There are many other conditions that could be met or students could complete some of these outcomes in partial; how would students be evaluated for that? The grading policy and guidelines are not clear on this final project.

The specific criteria of how learners are going to be evaluated is not documented. The grading rubrics for these individual lessons should also be tied back to the course grading policy, which is also not clear. Each lesson needs more definition, clarity, a rubric attached and made compliant with ADA standards.

3.2: Course grading policy for individual assignment is NOT clear and does not reflect back to the overall grading policy. The Student Evaluation and Grading section is broken down into Tasks, Assignments, Final Project and Attendance. How do students know what assignment is a Task? An Assignment? A Lab? The individual lesson plans do not inform the student of how the lesson fits into to the overall grading policy. Under Course Requirements more on the grading structure is elaborated on, however, again there isn't a clear alignment.

3.3: Please see 3.2.

3.4: The assessment instruments are varied, including assignments, lab projects and group collaboration.

3.5: How will students receive feedback? How long will Instructor take to give feedback? How will students gage their success in this class?

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	**2**
4.3 All instructional materials used in the course are appropriately cited.	2	**2**
4.4 The instructional materials are current.	2	**1**
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	**0**
Total		**8**

Comments:

4.1: There are some varied instructional material and the Reviewer appreciates textbook materials, videos, lesson plans, group projects and lab applications. This is good. It is suggested to strengthen the instructional materials by attaching them to the course learning objectives and competencies through grading rubrics and curriculum mapping.

4.2: Materials and purposes for learning are explained. Again, more direction with references to resources cited needs to be made clear.

4.3: The textbook/online resource is cited in the syllabus.

4.4: The textbook is through Course Technology and is using an older Office product (2013). Reviewer called Course Technology to see if this author had a newer edition and there isn't a newer option. The author is not drafting an updated version as of 2/24/17. Reviewer suggests looking for a textbook/resource that is more current. Office 2016 or Office 365 is what is standard when students purchase a new computer, Reviewer suggests upgrading textbook and instructional materials to reflect. There are some different menu options in Access for the tasks that are assigned.

4.5: A variety of materials is listed for the course.

4.6: No mention is made of optional, or extra credit, assignments or activities.

E. Course Activities and Learner Interaction (11 points total)

5.1 The learning activities promote the achievement of the stated learning objectives or competencies.	3	**3**
5.2 Learning activities provide opportunities for interaction that support active learning.	3	**1**
5.3 The instructor's plan for classroom response time and feedback on assignments is clearly stated.	3	**0**
5.4 The requirements for learner interaction are clearly stated.	2	**0**
Total		**4**

Comments:

5.1: Activities apply a hands-on approach to achieve the objectives.

5.2: Yes, there are several group projects and a presentation that has been assigned.

5.3: No plan is provided for classroom response time or assignment feedback.

5.4: No requirements are listed for learner interaction. While recommended or "helpful", it is not required and placed on a grading rubric. In order for students to be successful in group projects, clear expectations should be set.

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	**2**
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	**8**

Comments:

6.1: The Reviewer would like to see an equipment list for this course. It would be informative for the students to see all the types of equipment they will be handling. The equipment list could also be mapped to each course outcome.

6.2: Not specifically addressed. See comment from 6.1.

6.3: Assumed that the technology is provided in the classroom; it would be good practice to state that the equipment for this class is provide through TAACCCT and what the equipment is they would be using.

6.4: Access 2013 is outdated, new versions of Office are available including 2016 and 365; Reviewer suggests looking at an upgrade.

6.5: No links are provided. Privacy policy for Microsoft Office can be found here: https://privacy.microsoft.com/en-us/privacystatement.

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	**0**
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		**0**

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 ADA office **at this number; no number listed.** A website link to the SMCC disability service office is recommended.

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, LMS course shell not provided to Reviewer. 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. All of the lessons had links to YouTube videos however, there wasn't a transcript provided. Federal Law states that a transcript OR captioning must be provided for persons with disabilities. Always good practice to include for all multimedia.

8.4: Unable to review this item, no LMS course shell for review. 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, course shell not provided to Reviewer. 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 II: Employment Data

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: SMCC: CMIT110
Course Name: Database Fundamentals
Reviewed by: Mark Summey
Date: February 6, 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 CMIT110 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 SMCC 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 CMIT110 relate to specific job openings.
2. Current job openings list specific duties that relate the Data Fundamentals course, CMIT110.
3. The current Advisory Board indicates it contributes to the labor market data.

There are several current job openings available for a Database administrator, as of 2/24/17, within a 50-mile radius of SMCC. A list of postings:

- **Database Analyst – Diversified, Portland, ME**
  Diversified Business Communications, a Portland, Maine-based international trade show organizer and magazine publisher has an opening on our Data Services team for a talented and dedicated entry level Database Analyst. This individual support database development, database administration and may be called upon to help oversee our off-site managed services infrastructure vendor.

- **Business Intelligence Data Architect, Martin's Point Health Care, Portland, ME**
  Martin's Point has a state-of-the-art data warehouse containing data from all aspects of its operations. Utilizing standard data manipulation tools as well as the Cognos presentation layer toolset, the Informatics Department provides business intelligence services to Martin's Point, starting with data architecture and stewardship (the Information Architecture team) to the use of state of the art toolsets (the BI Administration team) and finally the delivery of reports, analyses and consultation (the BI Reporting team) to the management team at Martin's Point all with the goal of improving performance throughout the organization. A member of the Information Architecture team, the BI Data Architect is key to the architecture, design, development, and maintenance of the data warehouse; data marts, staging and archival databases through the life cycle: from business requirements to development of logical design, translation to physical design, ETL architecture and code development, and on through implementation and maintenance. This position reports to the Manager, BI Architecture.

- **Data Analyst – Clinical & Operation, Apothecary by Design, Portland, ME**
  Apothecary by Design is seeking a full-time Data Analyst for the Clinical and Operations Departments at our Portland, ME location*. The primary responsibilities of the Data Analyst will include data mining, analysis and reporting that assists the Clinical and Operations Departments in their workflow, and in analyzing Patient Management program performance.

- **Manager, Registration – Patient Access, Portland, ME**
  Responsible for providing leadership, support, direction and focus in the application of the Patient Access standards and principles of continuous improvement. The scope of responsibility includes maintaining the processes, data system accuracy and infrastructure that assures that the MaineHealth entity receives timely payment for services provided or makes alternative financial arrangements, and that patients receive prompt clinical services. Manage a staff to ensure the financial goals and objectives based on the Revenue Cycle Scorecard are achieved monthly for each area of responsibility. Creates an environment where new ideas are encouraged. Reinforces staff involvement in all improvement activities, develops department goals and objectives which support corporate and health system. Has full understanding of the process and each role within the process and its effect on the larger scope of the Revenue Cycle. Establishes the department standards and expectations for improvement initiatives and aligns them with Revenue Cycle initiatives.

- **EMP, Maine Medical Partners, South Portland, ME**
  5 years or more of progressively responsible experience in database report design and analysis; preferably in a health care setting; or an equivalent combination of training and experience. Preferred experience with SQL Server, Crystal Reports, MS Access, MS Excel. Experience with database technology. Expert data manipulation skills related to database development analysis and reporting of health care data with thorough knowledge of Crystal Reports, SQL, Microsoft Access, and Excel. Knowledge of healthcare data including CPT and ICD9/10 codes and rvus. Knowledge of HIPPA requirements related to the distribution of patient data

- **Patient Access Apprentice – MH – Access Pre-Service, Portland, ME**
  The first level of a three level career path. Schedules, Pre-Registers, Registers and admits patients to the hospital. Serves as the first contact for many patients. Must convey a caring and professional attitude for all patients and visitors. Determines insurance coverage, eligibility and performs required pre-authorization procedures. Maintains patient care unit control for all bedded units. Provides comprehensive financial counseling and assistance. Establishes and monitors each patient's account prior to their visit, during inpatient stays, and up to 5 days post discharge. Ensures the accuracy of the patient's unique identification number and the demographic and financial information use to create an electronic bill.

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 CMIT110 course learning outcomes and objectives align with the program mission and goals. This reviewer found that the CMIT110 course has listed measurable outcomes which can be stacked and latticed with other coursework. The industry sector for CMIT110 has been categorized as: NAICS 541512 Computer Systems Design Services. http://www.census.gov/cgi-bin/sssd/naics/naicsrch?code=541512&search=2007%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.

Cross-References. Establishments primarily engaged in--

- Selling computer hardware or software products and systems from retail-like locations, and providing supporting services, such as customized assembly of personal computers--are classified in Industry 443120, Computer and Software Stores; and
- Merchant wholesaling computer hardware or software products and providing supporting services, such as customized assembly of personal computers--are classified in Industry 423430, Computer and Computer Peripheral Equipment and Software Merchant Wholesalers.

Those completing this course would enter the Bureau of Labor Statistics occupation classification of 15-1141 Database Administrators. https://www.bls.gov/soc/2010/soc151141.htm Administer, test, and implement computer databases, applying knowledge of database management systems. Coordinate changes to computer databases. May plan, coordinate, and implement security measures to safeguard computer databases. Excludes "Information Security Analysts" (15-1122).

The NCES CIP (Classification of Instructional Programs) is referenced as: 11.0802, Data Modeling/Warehousing and Database Administration. A program that prepares individuals to design and manage the construction of databases and related software programs and applications, including the linking of individual data sets to create complex searchable databases (warehousing) and the use of analytical search tools (mining). Includes instruction in database theory, logic, and semantics; operational and warehouse modeling; dimensionality; attributes and hierarchies; data definition; technical architecture; access and security design; integration; formatting and extraction; data delivery; index design; implementation problems; planning and budgeting; and client and networking issues.

This course was designed for community college students or equivalent. There are two course prerequisites listed.

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 – CMIT110 articulates specific learning outcomes for the course, and it can be seen that aspects of the course objectives align with the topics of most weekly activities, but there is no explicit connection between the broader course outcomes and the course learning activities. Activity-level objectives are not listed, so it is unclear how each unit contributes to the whole course. Reviewer also recommends attaching a grading rubric to the individual learning assessments.

A.2 – Yes, Co-Requisites are listed.

A.3 – Reviewer is referring to the 6 outcomes, not the ACM outcomes. If the ACM outcomes are to be considered, they need to be further explained and adopted with the curriculum.

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

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.

**Reviewer Note: Could the Microsoft Access Certification exam be adopted for this course? I think it would be a good addition to the course.

B. Relevancy

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

Findings include:

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

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

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

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

B.1 - Course objectives align with industry expectations at the appropriate skill level. The ACM outcomes are a good fit for this course and a national standard. After careful review, the ACM outcomes are somewhat different than the outcomes 1-6 provided. Please review and map the ACM outcomes to specific course assessments and activities.

B.2 - Core competencies are relevant to industry and employers, as verified using the Burning Glass labor market data and the Dynamic Skills Audit Summary. Student learning objectives align with the competencies expected of new hires in the field of database administration. This industry appears to have the strongest growth rate compared to networking and programming. There were over 30 employment opportunities in the area for this specific field.

B.3 - Activities and instruction defined in the course outline offer real-world application in database administration. The varied instructional methodologies help keep the course engaging.

C. Resources & Materials

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

Findings include:

Table: Instructional materials and their direct link to course outcomes

Standard Reviewed	N/A	Satisfactory	Not Satisfactory
C.1 The instructional materials contribute to the achievement of the stated course learning objectives.			X
C.2 The purpose of the instructional materials is clearly explained.			X
C.3 The instructional materials present a variety of perspectives and approaches on the course		X	
C.4 The instructional materials are appropriately designed for the level of the course.		X	

C.1 – The instructional materials need to be mapped to specific learning objectives. Students will not know what activity links to what outcome unless it is mapped and made clear in the syllabus. Please consider providing a curriculum map for students.

C.2 – There needs to be clearer explanations which include grading rubrics and ADA compliancy.

C.3 – There is a variety of instructional materials, please cite the resources in the syllabus.

C.4 – 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

Findings include:

Table: Measurement of effective learning

Standard Reviewed	N/A	Satisfactory	Not Satisfactory
D.1 The course evaluation/criteria/course grading policy is stated clearly on each syllabus.			X
D.2 Course-level assessments (those that can be delivered) measure the stated learning objectives and are consistent with course activities and resources.		X	
D.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation and are tied to the course grading policy.			X
D.4 The assessment instruments (that can be delivered) are sequenced, varied, and appropriate to the content being assessed.		X	

D.1 – The grading policy is stated, however the evaluation criteria is not stated. Grading rubrics attached will help identify what is required.

D.2 – Yes

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.

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.