Formal Evaluation and Subject Matter Expert
Summary Report

WEB133

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

EMPORIA STATE UNIVERSITY
INFORMATION TECHNOLOGY

January, 2017

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

Course Review for: Maine is IT
Course: YCCC: WEB133: Web Development I I
Reviewed by: Anna J. Catterson, Ph.D.
Date: January 4, 2017

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INFORMATION TECHNOLOGY

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	**1**
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	**6**	

Comments:

1.1: After reviewing the Blackboard course WEB133; the reviewer did not find any information inside the course on how students are to get started. It is best practice to have an announcement guiding students on how to get started and where to go first. This should also be done in the course content, under your modules. A "Getting Started" module would be helpful for students so they know what steps they need to take first. It is also suggested to put the dates on each of the modules (weeks). For example, Week 1: August 15th – 19th. This will help students identify where the week falls within the course. The reviewer did find a "Getting Started" section under Week 1 but the information was related to the software Expression Web 4.0 and open Office. How will students know how to navigate the course and how to access student resources such as the library and tech support? These elements should be told to the student in a separate section called "Getting Started" unit.

1.2: The purpose and structure for the course was explained in the syllabus however, should also be placed in the "Getting Started" unit. This will follow the 3-R's (Redundancy, Repetition and Relevancy).

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 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.

1.4: Course and institutional policies were covered in the syllabus. Reviewer found that all policies were covered well in the syllabus. Links to student services for each policy could be an additional item added.

1.5: Technology requirements were not stated, is there software required for this course? Only requirement noted was the textbook.

1.6: Prerequisite knowledge was not addressed in the course syllabus.

1.7: Minimum skills were not addressed in the course syllabus.

1.8: The introduce yourself assignment was a good post to create interaction among peers and peer to instructor interaction as well. More discussions are encouraged. Also, please consider giving an example of an appropriate discussion board post compared to a non-appropriate example. A rubric would also be encouraged.

1.9: Very little discussion and participation elements found in this course. There were not discussions built in Blackboard at the time of this review. Suggest adding a discussion forum where all can communicate concerns or share ideas.

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 learning outcomes were written well and each were appropriate to the content and from the learner perspective. Reviewer appreciated the matrix to correlate back to the required course outcomes, good practice.

2.2: Yes, very good. Clear and measurable. Some could provide more detail but overall, these are well written.

2.3: Yes

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

2.5: The objectives are suited to the level of the course.

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	**1**
3.5 The course provides learners with multiple opportunities to track their learning progress.	2	**2**
Total	12	

Comments:

3.1: The assessments align with the learning objectives. Assessments are derived from the textbook, Web Design with HJTML, CSS, JavaScript & Jquery Set by Duckett. Most assessments align with the course objectives but additional assessments could be developed that are not directly from the textbook.

3.2: The grading policy is stated in the syllabus. Quizzes, Assignments and Final Projects were the major categories. The weights of these categories is appropriate in that the Final Projects and Assignments directly tie to the course outcomes. Reviewer suggests adding a category for participation/engagement.

3.3: Descriptive criteria is not provided for each assessment. Reviewer suggests adding a rubric for each assignment. While the assignment was created by the textbook, additional elements could be included and a rubric will help identify the assignment directives.

3.4: The assignments seem fairly similar, all from the textbook. The reviewer suggests supplementing this material with instructor content such as instructor-led videos for different learning styles.

3.5: Weekly assignments are provided to measure learner progress however; it is not clear how feedback will be received or given.

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 provided related to the achievement of the module. Rubrics are strongly encouraged for each week; reviewer did not find any rubrics for the assignments. This would be very helpful for the student. It is also suggested to implement various types of instruction; incorporating instructor-led videos especially relating to weeks were more problems may occur.

4.2: The purpose of the instructional materials and their use in the course is somewhat explained however a better correlation to the course outcomes could be provided. Could be done with grading rubrics.

4.3: Found on the first page of syllabus.

4.4: The instructional materials are current.

4.5: The instructional materials are similar in structure week to week, little variety. However, considering the nature of this course and the learning outcomes, this is to be expected.

4.6: Is there any required software for this course of browser specifications?

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

5.2: How will students interact with each other? This needs to be addressed in the syllabus.

5.3: The syllabus has no statement as to a timetable for instructor feedback. Try to give students a reasonable timeline to expect feedback on assignments.

5.4: The requirements for class participation are not stated in the course syllabus. Learners should be informed of how they will interact with others in the course, especially if credit is given. (See 5.2)

F. Course Technology (10 points total)		
6.1 The tools used in the course support the learning objectives and competencies.	3	**0**
6.2 Course tools promote learner engagement and active learning.	3	**0**
6.3 Technologies required in the course are readily obtainable.	2	**0**
6.4 The course technologies are current.	1	**0**
6.5 Links are provided to privacy policies for all external tools required in the course.	1	**0**
Total	**0**	

Comments:

6.1: Not sure what tools are required, if any.

6.2: Not sure what tools will be required; suggest adding the technology to the syllabus.

6.3: Unknown.

6.4: Unknown.

6.5: Privacy policies are usually available in the software use agreement. 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. You will want to include the privacy policies for all software in the course.

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.

H. Accessibility and Usability (12 points total)		
8.1 Course navigation facilitates ease of use.	3	**2**
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	**2**
8.5 Course multimedia facilitate ease of use.	2	**2**
Total	**6**	

Comments:

8**.1:** Make sure navigation is easy and intuitive (minimum clicks to reach destination). Instead of providing links to the assignments, I would recommend including a content page so nothing has to be downloaded and users don't have to exit the course. This is best practice for ADA compliancy. Another reason to use the same software is so that it will be ADA compliant.

8.2: Clear instructions should be provided on how to download the software; step-by-step tutorials need to be 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. There are two handouts for websites and videos; both are not ADA compliant. When testing with a screen reader, the JAWS software would not open a few of the links. Ensure that you follow ADA standards and avoid bold and italics, instead use strong and emphasis. Also, a few videos did not have captioning or transcription, Federal Law states we must provide reasonable accommodations; see if captioning is an option for these videos provided.

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.

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: Please refer to the SME report.

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 creative commons attribution and license has been added accordingly.

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

Course: YCCC: WEB133
Course Name: Web Development I
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 CIS131, 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 YCCC 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 CIS131 relate to specific job openings. There were over 12 job openings the reviewer found and evaluated for this report. Current openings include:
    - Web Developer, Madison resources in Portsmouth, NH
    - Graphic Designer/Web Team, Village Candle, Wells, ME
    - Assistant Director of Medical Student Services, University of New England, Biddeford, ME
    - Marketing Communications Manager, The baker Company, Inc., Sandord, ME
    - Applications Developer – SACO, Sweetser, Saco, ME
    - Marketing Coordinator Associate, Fluid Imaging Technologies, Inc., Scarborough, ME

    All of these openings had direct job responsibilities related to course outcomes. Requirements included:

    a) Analysis, requirements gathering, design of technical specifications, coding, testing and support of new and existing database driven web applications
    b) Implementing and designing CSS, SQL Connectors using ADO, DAO, ADO.NET, HTML, JavaScript, DHTML, VSS
    c) Planning and delivering software platforms used across multiple products and organizational units
    d) Deep expertise and hands on experience with Web Applications and programming languages such as HTML, CSS, JavaScript, JQuery and API's
    e) Provide frequent communication to colleagues and leadership*
    f) Strong grasp of security principles
    g) Problem solving abilities and outstanding communication skills

***Item e), from above, is a direct relation to the reviewers' suggestion of increased communication in the 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. Again, the Advisory Board committee also identified soft skills that could be incorporated in this course including increased communication and participation among students.

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:

Each learning outcomes should be specific, measurable and written for the learner. The reviewer found that the course outcomes were well written and organized.

- The industry sector for CIS131 has been categorized as: *54151, Computer Systems Design and Related Services*. (See: http://naics-codes.findthedata.com/l/615/Computer-Systems-Design-and-Related-Services) The reviewer finds that this classification is correct.

- Those completing this course would enter the Bureau of Labor Statistics occupation classification of *15-1134.00-Web Developers.* (See: https://www.onetonline.org/link/summary/15-1134.00) This is defined as:
  Design, create, and modify Web sites. Analyze user needs to implement Web site content, graphics, performance, and capacity. May integrate Web sites with other computer applications. May convert written, graphic, audio, and video components to compatible Web formats by using software designed to facilitate the creation of Web and multimedia content.

- The NCES CIP (Classification of Instructional Programs) is referenced as: *11.0801 Web Page, Digital/Multimedia and Information Resources Design*. (See: https://nces.ed.gov/ipeds/cipcode/cipdetail.aspx?y=55&cipid=87254); this is also an accurate classification.

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

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 – Yes
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 are measurable.
A.4 - Learning objectives are appropriate for an introductory course.
A.5 – Yes

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.
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 in the Web Design field.
B.3 - Activities and instruction defined in the course table of contents are engaging, however, learners need to know what type of engagement and interaction will be expected of them. It is best practice to place this into the course syllabus.

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:

Textbook contents aligned with course objectives. Unit-level objectives and activity descriptions should be added to clearly show students the purpose of each assignment. The textbook is a good reference however reviewer suggest giving other resources including OER and/or instructor-led materials as supplemental materials.

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 – A better explanation would be suggested. Rubrics are strongly encouraged.
C.3 –The technology content varies throughout the course, which would lead to a variety of activities.
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

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 –Several course-level assessments that can be measured.
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. Suggest stating communication policies in the syllabus.
D.4 – Yes