# Subject Matter Curriculum Review Form RX Tennessee Grant

College: Volunteer State Community College

**Program: Medical Informatics** 

Course Title: INFS 110 - Fundamentals of Web Programming

Reviewed By: Dr. Fortune Mhlanga

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### Reviewer credentials: Dr. Fortune Mhlanga

Currently serving as the Dean of the College of Computing and Technology at Lipscomb University in Nashville, Tennessee, Dr. Mhlanga has over 30 years of classroom teaching experience with undergraduate and graduate programs involving Computer Science, Information Technology, Data Science and Software Engineering. He has also served as an independent consulting software engineer to several major corporations. Prior to joining Lipscomb University in 2011, Dr. Mhlanga held positions with Abilene Christian University, Faulkner University and the University of Zimbabwe. He currently serves on the Nashville Technology Council (NTC) Board and the Lipscomb Academy Leadership Council.

## **Review Scale Definitions**

Exceptional: Review component is a "best practice" and represents a model for replication.

Very good: Review component is complete and effective.

Good: Review component is adequate but presents opportunities for improvement.

Ineffective: Review component is weak and in need of significant improvement.

Student Learning Outcomes and Curriculum Map	Exceptional	Very Good	Good	Ineffective
Effective course structure.	X			
Outcomes aligned to occupational focus (professional skills and standards).	X			
Outcomes clearly stated.	Х			
Outcomes introduced/reinforced effectively.	X			

Comments or recommendations:

This is an introductory level course on Web Programming. The Student Learning Outcomes are very clear at communicating the level and depth of learning students are expected to achieve. The course provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in Web application development and, it sets the stage and prepares students very well for advanced-level courses such as INFS 213 – Advanced Web Programming. The curriculum has been designed in such a way that it sparks curiosity and imagination while teaching critical knowledge and skills.

Course Objectives	Exceptional	Very Good	Good	Ineffective
Appropriate to course level and deliver desired outcomes.	X			
Clearly stated from student perspective.	Х			
Measurable.	Х			
Address/support one or more outcome.	Х			

#### Comments or recommendations:

The Course Objectives are aligned with the Student Learning Outcomes. They are very clear and stated in demonstrable terms to give students a clear idea of what is expected of them, and to use as a basis for creating assignments and examinations in each module of the course. The objectives are measurable and give the instructor a way to fairly assess student achievement.

Module or Unit Objectives	Exceptional	Very Good	Good	Ineffective
Clearly linked to course objectives.	Х			
Address one or more course objective.	Х			
Clearly stated from student perspective.	Х			
Measurable.	X			

#### Comments and recommendations:

The Module Objectives are aligned with the overall Course Objective(s), and clearly stated in demonstrable terms to give students a clear idea of what is expected of them. The modules are structured in such a way that they give students a roadmap for attaining success. The module objectives are also very specific and measurable, and enable the student to know exactly what is required to attain success.

Instructional Materials, including Media (videos, presentations, handouts, etc.)	Exceptional	Very Good	Good	Ineffective
Support stated course and module or unit learning objectives.	X			
Meet/reflect current professional practices and standards.	X			
Provide options for multiple learning styles.	X			
Resources/materials are cited properly.	X			
Evidence of innovation to support adult learner success.	X			

#### Comments and recommendations:

The instructional materials are clearly articulated in support of learning outcomes and objectives. Use of the recommended textbook, lecture notes, discussion boards, and the external resources materials provide students with multiple means of representation of concepts, multiple means of engaging in learning the concepts, and multiple means of expression for students to demonstrate what they have learned. They provide a model for self-actuated learning and universal access for all students, including means of support toward adult learner success.

Learning Activities	Exceptional	Very Good	Good	Ineffective
Promote achievement of stated module or unit objectives	X			
Materials/resources (to include equipment, tools and software) are presented in a way	٧			
that students understand purpose and use in healthcare settings.	^			
Provide opportunities for interaction and active learning	Χ			
Provide options for multiple learning styles	Χ			
Linked to current professional practices and standards	Χ			
Evidence of innovation to support adult learner success	Χ			

#### Comments and recommendations:

The learning activities are congruent with stated module objectives and provide students with multiple means of representation, engagement, and expression. They have been carefully selected to help students retain the information. They provide technical skill proficiency, and include competency-based applied learning that contributes to the academic knowledge, problem-solving skills, work attitudes, general employability skills, and introductory knowledge of Web application development.

Assessment Tools/Criteria for Evaluation	Exceptional	Very Good	Good	Ineffective
Measure stated learning objectives and link to professional standards	Х			
Align with course activities and resources	Х			
Include specific and descriptive criteria for evaluation of student work/participation	Х			
Sequenced throughout instructional period to enable students to build on feedback	Х			
Varied and appropriate to content	Х			
Provide opportunities for students to measure their own learning progress	Х			

#### Comments and recommendations:

Course assessment including twelve hands-on practice exercises, quizzes, a semester-long case project, and three exams is used to measure stated learning objectives. Use of hands-on practice exercises and quizzes enable processes for formative assessment in the course of learning when there is still time to improve student performance. Exams and the semester-long case project enable processes for summative uses, enabling the instructor to collect and use assessment data for subsequent continuous improvement. Use of discussion boards is also very good in that it enables the instructor to assess how well students communicate for a variety of purposes and in a variety of ways, including virtual environments. The semester-long case project gives students an opportunity to create an innovative and robust Web application that will be valuable addition to their programming portfolio. Overall, the assessment provided by the course enables students to possess 21st century Web application development skills like problem-solving, critical thinking, entrepreneurship and creativity.

Innovative or enhanced strategies	Exceptional	Very Good	Good	Ineffective
Evidence professional input/standards in course design.	X			
Evidence of program enhancements to support adult learner	Х			

#### Comments and recommendations:

The course has been carefully designed to provide a model for self-actuated learning and universal access for all students, including means of support toward adult learner success. Successful students will acquire competence sufficient to apply acquired knowledge in migrating to new and emerging Web application development standards and technologies, and to prepare them for subsequent courses under the Medical Informatics Associates program.