



BUILDING ILLINOIS' BIOECONOMY CONSORTIUM

BUILDING ILLINOIS BIOECONOMY CONSORTIUM CURRICULUM REVIEW ROUND IV TAACCCT GRANT

BIB College: Southern Illinois University Edwardsville

Program or Course Reviewed: Integrative Studies – Bioprocess Science, Bioprocess Management, Industrial Bioprocess

Date: September 26, 2018

Subject Matter Expert: Brian A. Wrenn, Ph.D.

Subject Matter Expert Qualifications:

Dr. Brian Wrenn is the Principal of Environmental Analysis and Technology, LLC with an extensive history in education and research in the bioeconomy, including serving as Assistant Professor in the Department of Civil Engineering and Environmental Engineering at Washington University and as the former Director of Research at the National Corn-to-Ethanol Research Center. Dr. Wrenn earned his PhD in Environmental Science in Civil Engineering from the University at Urbana-Champaign, his M.S. in Biological Oceanography, and his B.S. in Biochemistry/Chemistry (see attached resume).

Review Scale Definitions:

Excellent: 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

****Curriculum Review Rubric was adopted from the TREND Consortium (Training for regional energy in North Dakota) developed under a Round II TAACCCT grant.**

Summary of Findings: Courses are given an overall, general summary of findings here, or explanation of the overall goal of the course, or where the courses are laid out as part of the career pathway for students.

- 1. Program/Course Objectives:** The overall design and purpose of the program and each course is made clear to the student. Course Objectives build upon knowledge and skills through the sequence of the program and align with Program Outcomes.

<i>Specific Review Standard</i>	<i>Excellent</i>	<i>Very Good</i>	<i>Good</i>	<i>Ineffective</i>	<i>N/A</i>
1.1 The program/course outcomes are clearly stated.			X		
1.2 The course descriptions and sequence of each course are clearly stated.		X			
1.3 Prerequisites and/or any required competencies are clearly stated.		X			
1.4 Learning objectives for each course describe outcomes that are measurable.			X		
1.5 Learning objectives are appropriately designed for the level of each of the courses.			X		
1.6 Instruction, activities, and assignments in courses are scaffolded from course to course, and throughout the program.			X		
Comments:					

- 2. Relevancy:** Program Outcomes and Course Objectives are relevant to students, industry, and employers.

<i>Specific Review Standard</i>	<i>Excellent</i>	<i>Very Good</i>	<i>Good</i>	<i>Ineffective</i>	<i>N/A</i>
2.1 Program Outcomes represent industry's expectation of the overarching knowledge, skills, and abilities a student should have.			X		
2.2 Program outcomes and course objectives/competencies are relevant to industry and employers .			X		
2.3 Instruction, activities, and assignments in individual courses are relevant and engaging to students .			X		
Comments:					

3. **Resources and Materials:** Instructional materials being delivered achieve stated course objectives and learning outcomes (*note: only grant-funded portions of program/course materials are deliverable under CC BY licensing*).

<i>Specific Review Standard</i>	<i>Excellent</i>	<i>Very Good</i>	<i>Good</i>	<i>Ineffective</i>	<i>N/A</i>
3.1 The instructional materials contribute to the achievement of the stated course learning objectives.			X		
3.2 The purpose of instructional materials is clearly explained.			X		
3.3 The instructional materials present a variety of perspectives and approaches on the course content.			X		
3.4 The instructional materials are appropriately designed for the level of the course.			X		
Comments:					

4. **Assessment and Measurement:** 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.

<i>Specific Review Standard</i>	<i>Excellent</i>	<i>Very Good</i>	<i>Good</i>	<i>Ineffective</i>	<i>N/A</i>
4.1 The course evaluation criteria/course grading policy is stated clearly on each syllabus.			X		
4.2 Course-level assessments measure the stated learning objectives and are consistent with course activities and resources.			X		
4.3 Specific and descriptive criteria are provided for the evaluation of students' work and participation and are tied to the course grading policy.			X		
4.4 The assessment instruments are sequenced, varied, and appropriate to the content being assessed.			X		
Comments:					