AS, Occupational Safety Fairmont State University 5 Year Program Review Submitted Spring 2012



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PROGRAM REVIEW Fairmont State Board of Governors

X Program with Special Accreditation 🛛 Program without Special Accreditation

Date Submitted 2/15/2012

Program: Associate of Science, Safety Engineering Technology

Degree and Title

INSTITUTIONAL RECOMMENDATION

The institution is obligated to recommend continuance or discontinuance of a program and to provide a brief rationale for its recommendation:

X 1. Continuation of the program at the current level of activity;

- 2. Continuation of program with corrective action (for example, reducing the range of optional tracks or merging programs);
- 3. Identification of the program for further development (for example, providing additional institutional commitment);
 - 4. Development of a cooperative program with another institution, or sharing courses, facilities, faculty, and the like:

5. Discontinuation of the Program

Rationale for Recommendation:

The Safety Engineering Technology program has maintained appropriate enrollments and graduates during the past five years. Classes offered as part of the program average 23 students per class during this same period. More importantly, this program utilizes the same assessment standards in place for the baccalaureate degree in Occupational Safety, and this program is accredited by the Board of Engineering and Technology (ABET). Currently, the AS program does not graduate a large number of students. This is a result of students matriculating into the BS degree in Occupational Safety. As a feeder program for the 4-year degree, the Safety Engineering Technology program does not require any additional resources. The program is fully supported by the same resources allocated to the baccalaureate program in Occupational Safety. The Safety Engineering Technology program is considered a quality program, and this program is highly supported by the Dean of the College.

of person preparing r

Signature of Dean

risting Signature of Provost and Vice President for Academic Affairs:

Signature of President:

2/15/12

<u>6-6-12</u> Date

6-6-12 Date

6-6-12

Executive Summary for Program Review

(not to be more than 2-3 pages)

Name and degree level of program Safety Engineering Technology – Associate of Science

External reviewer(s) ASAC of ABET – 2007-2008 (For the BS, Occupational Safety)

Synopses of significant findings, including findings of external reviewer(s) Program meets all necessary criteria to sustain viable enrollment. ASAC of ABET recognized the BS program with full accreditation for six years. The AS program serves as a feeder program for the BS program. Therefore it is held to the same assessment standards, outcomes and objectives.

Plans for program improvement, including timeline No improvements necessary as a result of this review.

Identification of weaknesses or deficiencies from the previous review and the status of improvements implemented or accomplished The ASAC of ABET review during 2007-2008 did not identify any weaknesses or deficiencies in the current program

Five-year trend data on graduates and majors enrolled

Within the past five years, the AS, Safety Engineering Tech program has graduated 3 students. This is an average of less than 1 graduate per year. However, two of the three students continued their education to obtain a BS in Occupational Safety. The third student continued his education to obtain a BS in Civil Engineering Technology. All three of these students are gainfully employed in their fields in North Central West Virginia.

Student enrollment in the program reported 150 majors in the AS, Safety Engineering Technology program over a five year period. This is an average of approximately 30 students per year. However, almost all of these students transfer into the BS Occupational Safety program without graduating with an AS in Safety Engineering Technology.

Summary of assessment model and how results are used for program improvement

The Occupational Safety program utilizes a departmental Continuous Improvement Plan to meet institutional assessment needs. The Continuous Improvement Plan involves assessment and continuous improvement on three levels. The purpose of the Continuous Improvement Plan (CIP) is to identify, track, and remediate program weaknesses. The evaluation of

competencies and program components leads to modifications of content, delivery, and other factors deemed instrumental in the pursuit of program improvement.

The CIP involves three levels of application. These levels include:

- Assessment of Program Objectives
- Assessment of Program Outcomes
- Program Modifications as determined necessary by the assessment practices.

Program Objectives are evaluated using various tools such as graduate surveys, employer surveys and a graduate competency exam. Benchmarks have been established for each of these assessment tools to determine program effectiveness. If data points within the results do not meet established benchmarks, an improvement plan is developed and implemented. Any modifications to the program objectives are approved by program faculty and the program's Industrial Advisory Committee.

Program Outcomes are evaluated using various tools such as course exams, assignments, quizzes, projects, labs, etc. Assessment points have been established for each course as they relate to the program outcomes. The program has established a benchmark in which 70% of the students in the course demonstrate competency. If less than 70% of the students cannot demonstrate success, a plan of improvement is established for the assessment point. These continuous improvement plans are approved by a collaborative agreement of the program faculty. An assessment matrix has been established to clearly define what assessment points are evaluated in each program course. The Occupational Safety program has established an assessment cycle of three years. Each assessment point on the matrix will be assessed at least once every three years. Additional assessments shall be conducted if warranted.

All program modifications such as curriculum changes are established as a result the program objective and outcome assessments. Any significant changes must be approved by program faculty and the program's Industrial Advisory Committee.

Data on student placement (for example, number of students employed in positions related to the field of study or pursuing advanced degrees)

Within the past five years, the AS, Safety Engineering Tech program has graduated 3 students. This is an average of less than 1 graduate per year. However, two of the three students continued their education to obtain a BS in Occupational Safety. The third student continued his education to obtain a BS in Civil Engineering Technology. All three of these students are gainfully employed in their fields in North Central West Virginia.

Most students initially enrolled in the AS, Safety Engineering Technology program, transition straight into the BS, Occupational Safety program. Within the past five years, the BS,

Occupational Safety program has graduated approximately 41 students. This is an average of approximately 8.2 graduates per year. Ninety (90) percent of these students have successfully obtained employment in the field of safety and health. In addition, approximately 75 percent of these students are employed in West Virginia. During this time one student has elected to further his education by obtaining a Master's Degree in Occupational Safety and Hygiene.

Final recommendations approved by governing board

The AS, Safety Engineering Technology program serves as a feeder program and is fully supported by the same faculty and platform as the BS, Occupational Safety. This includes program objectives and outcomes. Therefore it is recommended that this program maintain current status to serves as a recruitment and retention tool for the BS, Occupational Safety program.

PROGRAM REVIEW

FAIRMONT ST	TATE UNIVERSITY OR PIERPONT COMMUNITY AND TECHNICAL COLLEGE
Program:	Occupational Safety
School:	College of Science and Technology
Date:	2/12/12

Program Catalog Description:

The Occupational Safety program prepares competent professionals who serve as valued members of the management, engineering, and business team providing solutions to complex safety/environmental problems. This program focuses on principles drawn from engineering technology, health, physics, math, psychology, language and speech. Hands-on applications of these principles are emphasized through preparatory and professional courses. Preparatory courses include math, chemistry, physics, human anatomy, statistics, speech, written composition and psychology. Professional courses include industrial hygiene and toxicology, safety engineering and design, systems safety, safety and environmental law, fire prevention, ergonomics, environmental hazard control, OSHA compliance, and program management. Computer skills and experiential learning is heavily emphasized, including laboratory activities, industrial projects and/or internships. Internships may be paid or unpaid and can include academic credit. The curriculum is a highly flexible 2 + 2 curriculum. Once the two-year degree is earned, graduates may choose to enter the workforce or continue their education with two additional years at the baccalaureate level. The need for Safety/Environmental professionals will continue to grow into the next millennium. Major employers of our graduates include insurance companies (Liberty Mutual), government entities, state and local agencies, and businesses (IBM, Mobile Oil), and consulting firms. Increased emphasis on ergonomics, hazardous waste, accident costs, worker's compensation, regulatory compliance and health hazard control will require more Safety/Environmental professionals.

VIABILITY (§ 4.1.3.1)

Enrollment

Applicants, graduates	Applicant Data:	
	Over the past seven academic ye program has averaged 27.8 appli	ars, the Occupational Safety cants per year.
	Note: All applicant data includes Safety Engineering Technology, A Many students apply into the AS BS program once they have met i students elect to obtain a BS degi Safety/Environmental Engineerin	students that applied to both the S and Occupational Safety BS. program, but transfer over into the institutional requirements. Thus, ree instead of the AS g Technology degree.
	Academic Year	Number of Applicants
	2005-2006	25
	2006-2007	22
	2007-2008	30
	2008-2009	27
	2009-2010	31
	2010-2011	32
	Graduate Data: Over the past five (5) academic y program has averaged 8.2 gradua obtaining a BS, AS or Occupation	ears, the Occupational Safety ates per year including graduates al Safety Minor.
	Academic Year	Number of Graduates
	2006-2007	11 (1 AS graduate)
	2007-2008	11 (1 AS graduate)
	2008-2009	11
	2009-2010	8
	2010-2011	6 (1 AS graduate)

Application/ Admission Requirements

Students apply for admission to FSU through modern techniques by completion of an Application for Admission located on FSU's homepage at <u>www.fairmonstate.edu</u>. Once the student fully completes the application process, the student's application is reviewed for determination of admission.

Students seeking admission to Fairmont State University must be of the age of compulsory attendance in the state of West Virginia and file an application for admission. Applications and supporting credentials must be on file at least two weeks prior to the opening of a semester or term. All credentials submitted in support of an application for admission become the property of the University and will not be returned to the student. Any student admitted upon the basis of false credentials will be subject to immediate dismissal from the University.

Students who fail to register during the semester or term for which they have been admitted must file another application in order to gain admission at a later date. Separate applications for residence halls must be submitted to the Office of Residence Life. Any change in local address of any student at Fairmont State University must be reported to the Registrar.

The application for admission must specify the student's desired degree or program objective. Fairmont State University grants bachelor's degrees, and Pierpont Community & Technical College grants associate's degrees and administers certificate programs.

Admission to Fairmont State University does not guarantee admission to specific programs, which may be restricted due to limitations of staff, physical facilities, and space available for experiential training.

FAIRMONT STATE UNIVERSITY ADMISSION REQUIREMENTS FIRST-TIME FRESHMEN

- 1. Application for Admission
- 2. Official high school transcript or GED (sent by high school or Department of Education) (2.5 GPA or higher)
- 3. ACT or SAT Scores (17 ACT or 830 Composite SAT[combination of critical reading and math scores])
- 4. College Transcript (if college credit was earned during high school)
- 5. Immunization Records (if born after January 1, 1957)
- 6. Statement of Activities (if out of high school more than six months)

PLEASE NOTE: REQUIREMENTS CHANGED FOR FALL 2008

The Following Units Were Required Beginning Fall 2008:

- 4 English (including courses in grammar, composition, and literature)
- **3 Social Studies** (including U.S. History)
- 4 Mathematics (three units must be Algebra 1 and higher)
- **3 Science** (all courses to be <u>college preparatory</u> laboratory science, <u>preferably including units from</u> <u>biology</u>, <u>chemistry and physics</u>)
- 1 Arts
- 2 Foreign Language (Two units of the same foreign language)

Program courses	Five year course enrollment for all Safety Engineering Tec AS program courses is provided below:							
	SFTY Course Number	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Total Enrollment over 5 Years	
	1100	66	73	55	86	79	359	
	1150	15	17	26	20	22	100	
	2210	18	18	40	20	21	117	
	2250	25	13	16	17	18	89	
	2260	13	9	18	13	16	69	
	2280	18	7	11	14	11	61	
	2290	14	14	12	15	17	72	
	2291	15	6	20	11	13	65	
	A list of course	titles	and de	escrip	tions	are pr	ovided belov	

The Occupational Safety Program offers the following program courses:

Occupational Safety (College of Science and Technology)

 SFTY 1100 Safety and Environmental Components of Industry (3 hours) This course provides an introduction to OSHA and EPA regulations pertaining to general and construction industry record keeping, OSHA/EPA inspection, fire, chemical exposure, most frequent violations, and others.
 SFTY 1150 Safety Management and Concepts in Accident Prevention (3 hours) This class provides an introductory examination of safety management principles with an emphasis on recordkeeping, hazard identification, product safety, and behavioral-based safety as related to accident prevention. PR: SFTY 1100, MATH 1101

SFTY 2210 Disaster Preparedness and Emergency Systems (3 hours) A study of the major elements of disasters and emergencies, including systematic and organized methods of preparedness planning for these events. PR: None.

SFTY 2250 Safety Law and Compliance (3 hours)

This course is a study of federal and state regulations governing general industry and product safety with an emphasis on various legal problems related to OSHA and general industry. (OSHA 10 hour card is attainable upon completion of this class) PR: SFTY 1100

SFTY 2260 Fire Prevention (3 hours)

This course is a study and examination of fire prevention, detection and suppression. The NFPA Lifesafety Code will be addressed as well as basic water supply and hydraulics including distribution systems. PR: SFTY 1100, CHEM 1102

SFTY 2280 Construction Safety & Law (3 hours) This course is a study of federal construction regulations and the case law surrounding the construction industry. (OSHA 10-hour card is attainable upon completion of the course) PR: SFTY 2250, MATH 1102

SFTY 2290 Industrial Hygiene and Toxicology (4 hours)

This course covers the methods for anticipating, recognizing, evaluating and controlling exposures in the workplace while exploring the toxicological effects of contaminants on workforces. PR: SFTY 1150, MATH 1101, CHEM 1102, CR: SFTY 2250

SFTY 2291 Environmental Engineering Technology: Hazardous Waste (4 hours)

This class provides a comprehensive study of federal/state regulations and legislation pertaining to the Environmental Protection Agency. Coverage shall include EPCRA, TSCA, RCRA, CWA, CAA as related to generation, storage and disposal of chemicals and waste in industry. PR: CHEM 1102, SFTY 2250

Service courses	The AS, Safety service courses below.	Engine . A br	ering ief sur	Techi nmar	nology y of e	y prog ach se	ram offers th rvice course	nree (3) is provided
	<u>SFTY 1100</u> : Safe required by the	ety and follov	d Envi wing p	ronmo rogra	ental ms	Сотро	onents of Ind	<i>ustry</i> is
	ElectrorAviation	nic Eng n Admi	gineer inistra	ing Te tion,	echnol BS.	logy, B	S and AAS m	ajors
	 Civil Eng Emphas 	gineeri iis.	ing Te	chnol	ogy, E	3S with	n Environmei	ntal
	<u>SFTY 1150</u> : Safe Prevention is re Aviation	ety Mo equired n Admi	inagei d by th inistra	<i>ment</i> ne foll ition,	and C lowing BS.	<i>oncep</i> g prog	<i>ts of Acciden</i> ram.	t
	<u>SFTY 2210</u> : <i>Disc</i> programs. • Homela Commu	nd Seo nd Seo nity ai	Prepar curity, nd Teo	ednes AAS (chnica	s is re offere	equired ed by P ege	d by the follo Pierpont and	owing
	Five year cours	e enro	ollmen	t for t	these	course	es is provideo	d below:
	SFTY Course Number	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	Total Enrollment over 5 Years	
	1100	66	73	55	86	79	359	
	1150	15	17	26	20	22	100	
	2210	18	18	40	20	21	117	

Success rates Serv Crs	The suc student or bette Occupa section success The last rate for	The success rate of all service courses is based on the number of students that successfully pass the course with a letter grade of D or better. Below is a table summarizing student success rates for all Occupational Safety service courses as specified in the previous section. Each column depicts the number of students that successfully passed and failed the service course per academic year. The last column in the table below provides the overall % success rate for each service course.										
			umber	0150	A	cadem	nic Yea	r	virtina			
		200 20	06 – 107	20 20	07- 08	20 20	08- 09	20 20	09- 10	201 201	.0- 11	
	SFTY Course Number	Passed	Failed/Withdrew	Passed	Failed/Withdrew	Passed	Failed/Withdrew	Passed	Failed/Withdrew	Passed	Failed/Withdrew	% Successfully Passed Over 5 years
	1100	50	16	58	15	42	13	64	22	62	17	76.9%
	1150	14	1	17	0	26	0	19	1	21	1	97%
	2210	16	2	18	0	16	4	16	4	12	9	80.4%
ext ed/off campus crses	221010218010410412980.4%During the 5 years included in this program review, only one course, SFTY 1100: Safety and Environmental Components of Industry was offered off campus. Below is a list of the details related to the offering of this course.Semester: Spring 2010Instructor:Rick Hill, CSPEnrollment:12Location:Off-Campus, Caperton Center, Clarksburg, WVSuccess Rate:75% of students successfully completed the course.One student failed the course and two students received incompletes in the course.				ne of ails course.							

cost/student credit hour	The Occupational Safety program operates under the organizational budget for the College of Science and Technology. Therefore all students costs provided below for the College of Science and Technology are considered representative for all Occupational Safety students. College of Science and Technology						
	Academic Year	Total Cost Per Student (FTE) Equivalent	Total Cost per Student Credit Hour				
	2006-07	Data Unavailable	Data Unavailable				
	2007-08	\$5960.33	\$139.13				
	2008-09	\$5334.50	\$138.69				
	2009-10	\$5511.00	\$142.18				
	2010-11	\$5176.94	\$143.65				

Liberal Studies Requirements Met

All two year AS degree programs at FSU are required to complete the institutional general studies requirements. The Safety Engineering Technology Program requires students to complete these general studies requirements based on the criteria listed below.

INTERACTIVE INQUIRY	
WILLING SKIIIS	
ENGL 1104 Written English I	
ENGL 1108 WHILEH ENglish II	
Listening, Speaking , Analytic & Critical Thinking Skills	
INFO 1100 Computer Concepts & Applications	s(or demonstrated competency) .3 Hrs
MATH 1102, 1107, 1112, 1115, 1185, 1190	
COMM 2200, 2201, 2202	3 Hours
ADDITIONAL GENERAL EDUCATION REQUIREMENTS	
CULTURAL/CIVILIZATION EXPLORATION	
ARTISTIC / CREATIVE EXPRESSION & INTERDISCIPLINARY / ADVAN	NCED STUDIES OPTION
SOCIETY/HUMAN INTERACTIONS	
Total Liberal Studies Credit Hours: Approximately 30 H	lours

The table below identifies the courses completed in the AS, Safety Engineering Technology program and courses that meet general studies requirements.

Year;	Occupational Safety Program	Catego	ory (Credit Hours))
Semester or Quarter	Course (Department, Number, Title)	Professional Program Topics	Liberal Studies Requirement	Other
	English, 1104, Written English I		X(3hrs)	
1st Year	Math, 1101, Applied Technical Math I			
First Somostor	Science, 1000, Human Biology			
First Semester	Chemistry, 1101, General Chemistry I		X(4hrs)	
	Safety, 1100, Safety and Environmental Components of Industry	X(3hrs)		
	English, 1108, Written English II		X(3hrs)	
1 st Voor	Math, 1102, Applied Technical Math II		X(3hrs)	
Second	Safety, 1150, Safety Management and Concepts of Accident Prevention	X(3hrs)		
Semester	Chemistry, 1102, General Chemistry II		X(4hrs)	
	Comm 2202, Communication in Work.		X(3hrs)	
	Physics, 1101, Introduction to Physics I			
	Safety, 2250, Safety and Compliance	X(3hrs)		
2 nd Year	Safety, 2260, Fire Prevention	X(3hrs)		
First Semester	Safety, 2291, Environmental Engineering Technology: Hazardous Waste	X(4hrs)		
	Information Systems, 1100, Computer Concepts and Applications		X(3hrs)	
	Biology, 1170, Anatomy and Physiology		X(4hrs)	
2 nd Year	English, 1109, Technical Report Writing	X(3hrs)		
Second	Physics, 1102, Intro to Physics II			
Semester	Safety, 2290, Industrial Hyg. & Toxicology	X(4hrs)		
	Safety, 2280, Construction Safety and Law	X(3hrs)		

Assessment Requirements

The AS, Safety Engineering Technology Program has successfully implemented a Continuous Improvement Program that ensures program outcomes and objectives are effectively evaluated and achieved. These assessment practices are adopted through the Occupational Safety , BS program practices. These have been thoroughly reviewed (2007) and approved (2008) by the Applied Science Accreditation Commission (ASAC) of Accreditation Board for Engineering and Technology (ABET). In addition, these assessment practices have also been approved by the Occupational Safety's Industrial Advisory Committee.

Summary of Continuous Improvement Plan (Assessment Practices)

The ABET Accredited Programs at Fairmont State University use a Continuous Improvement Plan (CIP) designed and approved by selected program constituencies [faculty and the Industrial Advisory Committee (IAC)]. The CIP is a dynamic program used for assessing established objectives and outcomes along with procedures for implementation of necessary modifications to academic programs. The changes are presented to the programs' IACs for comments, recommendations, and approval.

The CIP Assessment Diagram (Figure 1, shown on the following page) illustrates the three assessment levels for the ABET Accredited Programs. The overall program assessment (Level 3) includes the scheduled review of the CIPs from the Program Objectives and the Program Outcomes. Since these two techniques differ slightly, reference to Program Objectives assessment specifications found in Section II of the plan and Program Outcomes assessment specifications found in Section III of the Continuous Improvement Plan are necessary.

Again, the CIP includes three levels of assessment: The Program Objectives (Level 1), the Program Outcomes (Level 2), and the overall assessment procedure (Level 3). The first two levels (Program Objectives and Program Outcomes) include the following components for assessment completion:

- 1. assessment,
- 2. determination of weakness(s),
- 3. action to be taken once the weakness is determined,
- 4. solicitation of approval/recommendation to correct from the appropriate constituencies,
- 5. implementation of change/modification to the Program Objectives (Level 1) or the Program Outcomes (Level 2) which can bring about overall change (Level 3) to the ABET Accredited Programs.

The remaining sections of the CIP allow for closing the loop regarding Program Objectives and Program Outcomes.

In Level 3, assessment is achieved by recommending and implementing academic program changes initiated by the constituencies' (Faculty and IAC members) review of the assessed Program Objectives and Program Outcomes.

The CIP is implemented at the freshman level and continues into post-graduation activities.

Appendix A contains a copy of the complete Continuous Improvement Plan for all ABET Accredited programs in the Department of Technology.

Figure 1: Assessment Methods for Occupational Safety



15 | P a g e

Adjunct use

The Safety Engineering Technology Program has employed the support of three (3) adjunct faculty members on a regular basis to assist in the offering of some Safety Courses. Below is a list and descriptor of the adjunct usage. A faculty data profile form has been completed for each adjunct member and included in Appendix B.

William Bickerstaff, CSP

Course Number and Title	When Taught	Average Enrollment
SFTY 1100: Safety and	Spring 2007	17.5 students per semester
Environmental Components of Industry	Fall 2010	
SFTY 2210: Disaster	Spring 2007	19.4 students per semester
Preparedness	Spring 2008	
	Spring 2009	
	Spring 2010	
	Spring 2011	
SFTY 2280: Construction Safety	Spring 2010	14 students
David Fetty		
Course Number and Title	When Taught	Average Enrollment
SFTY 1100: Safety and	Spring 2008	18.5 students per semester
Environmental Components of Industry	Spring 2009	
SFTY 1150: Safety Management and Concepts of Accident Prevention	Spring 2007	15 students
SFTY 2260: Fire Prevention	Fall 2008	19 students
Rick Hill, CSP		
Course Number and Title	When Taught	Average Enrollment
SFTY 1100: Safety and Environmental Components of Industry	Spring 2010	12 students

Graduation/Retention Rates

Over the past five years the Occupational Safety program has graduated a total of 46 students, averaging 9.2 graduates per year. This includes students that have graduated with an Occupational Safety, AS, Occupational Safety, BS and/or obtained a minor in Occupational Safety. Below is a table summarizing the graduation data on a yearly basis.

Academic Year	Number of Graduates obtaining BS	Number of Graduates obtaining AS	Number of Students Obtaining Minor in Occupational Safety	Total Students Graduated
2006-07	9	1	1	11
2007-08	9	1	1	11
2008-09	9	0	2	11
2009-10	8	0	0	9
2010-11	4	1	1	6
Total Number over 5 years	39	3	3	47

Previous Program Review Results

The previous program review for AS, Safety Engineering Technology program was submitted using the ABET program review self-study report format for the BS, Occupational Safety Program. The results of this ABET review indicated that all current practices, assessment methodologies and resources were sufficient for the maintenance of a successful occupational safety program.

As a result of the ABET review in 2007-2008, the Occupational Safety program received full accreditation without and program deficiencies or weaknesses.

A copy of the full approval and approval dates on the ABET website is provided as Appendix C for reference purposes.

ADEQUACY (§ 4.2.4.2)

Program Requirements:

Liberal Studies		_23_hrs	ENGL 1104 – 3 hrs		
			ENGL 1108 – 3 hrs		
			COMM 2202 – 3 hrs		
			INFO 1100 – 3 hrs		
			MATH 1102 – 3 hrs		
			CHEM 1101 – 4 hrs (Scient	tific/Discovery)	
			CHEM 1102 – 4 hrs. (Scien	tific/Discovery)	
Major		_45_hrs	MATH 1101 – 3 hrs	SFTY 1100- 3 hrs	
			SCIE 1000– 4 hrs	SFTY 1150- 3 hrs	
			PHYS 1101– 4 hrs	SFTY 2250– 3 hrs	
			PHYS 1102– 4 hrs	SFTY 2260– 3 hrs	
			ENGL 1109– 3 hrs	SFTY 2280– 3 hrs	
			BIO 1170– 4 hrs	SFTY 2290– 4 hrs	
				SFTY 2291– 4 hrs	
Electives		N/A	N/A		
TOTAL	max 68	_68_hrs			
Programs not meeting the above requirements must request a continuation of their exception with a justification below:			ation of their exception		

The AS., Safety Engineering Technology program is fully supported by the same faculty as the BS, Occupational Safety program.

The BS, Occupational Safety Program at Fairmont State University maintains two (2) full-time faculty members and has had the support of six (6) adjunct faculty during the 5 years included in this program review.

Full -- time Faculty:

Melissa W. Abbott, Ph.D., CSP, Associate Professor, Program Coordinator Kimberly Murphy, CSP, Associate Professor, ABET Coordinator

Adjunct Faculty:

William Bickerstaff, CSP Allen R. Cutlip, CIH, CSP Rick Hill, CSP David Fetty, MS David Sago

A faculty data sheet has been completed for each faculty member and provided in Appendix B of this document.

Accreditation/national standards

The BS, Occupational Safety Program obtained full accreditation under the Applied Science Accreditation Commission (ASAC) of the Accreditation Board for Engineering and Technology (ABET) after a complete program review in 2007. The recognition of the this accreditation has also allowed FSU's Occupational Safety program to be nationally recognized as a "Qualified Academic Program" (QAP) by the professional organization the Board of Certified Safety Professionals (BCSP).

Since the AS, Safety Engineering Technology program serves as the first four academic semesters of the model schedule for the BS, Occupational Safety program, the AS program is held to same program quality and continuous improvement practices.

NECESSITY (§ 4.1.3.3)

Placement and Success of Graduates

Since the majority of AS, Safety Engineering Technology students transfer into the BS, Occupational Safety program at FSU, graduate data has been reported for both programs.

Based on Occupational Safety exit interviews, graduate contacts and graduate surveys approximately 91.5 percent of the students are successfully employed in the field of occupational safety and health. In addition, approximately 75 percent of the graduates are employed in West Virginia.

Below is a summary of graduates and placement. Note: this data does not reflect the status of students that have successfully obtained a minor in Occupational Safety.

Graduate Status	Number of Safety Graduates	Percentage of Graduates
Graduate Status Unknown	4	8.51%
Graduates Placed	43	91.49%



Similar Programs in WV

Although several institutions in West Virginia offer programs of study related to Occupational Safety. Only one other institution in West Virginia offers an AS degree in the field Safety. This program is Mountain State University, Associate of Science, Occupational Health and Safety.

CONSISTENCY WITH MISSION (§ 4.1.3.4)

Fairmont State University has established the following mission statements:

MISSION STATEMENT: The Mission of Fairmont State University is to provide opportunities for individuals to achieve their professional and personal goals and discover roles for responsible citizenship that promote the common good.

VISION STATEMENT: Fairmont State University aspires to be nationally recognized as a model for accessible learner-centered institutions that promote student success by providing comprehensive education and excellent teaching, flexible learning environments, and superior services. Graduates will have the knowledge, skills, and habits of mind necessary for intellectual growth, full and participatory citizenship, employability, and entrepreneurship in a changing environment.

College of Science and Technology's Mission:

Our mission is to promote effective student learning in science, math and technology and to prepare top-quality graduates for their future endeavors, including graduate study, employment or other personal goals.

Occupational Safety Program Objectives :

The Program Objectives, as determined by the BS, Occupational Safety Program's constituencies are intended to dynamically promote professional competencies and continued professional growth. Since the AS, Safety Engineering Technology program constitutes the first four semesters of the BS, Occupational safety program, the AS program is held to the same program objectives.

Below are the Program Objectives for the Occupational Safety program at Fairmont State University. Students and graduates shall, to varying degrees, be competent in;

1	applying academic competencies and methodologies in addressing and solving
	problems as a professional.
2	using learned technical and non-technical methodologies to communicate to audiences
	of varying demographics.
3	ethically and respectfully performing professional responsibilities as part of a team and
	or multidisciplinary team.
4	recognizing and assessing the societal and global impact of professional decisions and
	practices.
5	pursuing lifelong learning through professional development.

University's Mission & Program Objectives

The Program Objectives are designed to address the professional competencies and development of students and graduates as well as emphasize the continued improvement and evolution of the individual after his/her exit from Fairmont State. Fairmont State's mission emphasizes the same desires and standards for students of the University.

In comparing Fairmont State's mission and core values to the Occupational Safety Program's Objectives, the consistencies are easily discernible. The mission of the University advocates three goals. These goals are; provide opportunities for individuals to achieve **professional goals**, provide opportunities for individuals to achieve **personal goals**, and provide opportunities for individuals to discover **roles for responsible citizenship** that promote the common good. These goals are further explained through relating the adopted core values.

The first goal of professional development incorporates the core values of scholarship, achievement and responsibility. The Program Objectives 1 through 5 directly link to this goal and these values through the professional development of the students via academic competencies in the field of safety, emphasis on effective communication skills, advocating team work, recognizing the importance of global and societal impact of the profession, and the importance and benefits of lifelong learning.

The Program Objectives foster professional growth through mandating that students successfully apply academic competencies and methodologies in addressing and solving problems as a Safety professional. This is accomplished through senior level projects, an exit exam, and tracking the post-graduate to determine level and competency of work performance.

The second goal of the Mission is the opportunity for attaining personal goals. The Program Objectives indirectly advocate personal development through intrinsic motivators such as communication skills, team work skills, global and societal emphasis and a desire for lifelong learning. Progress in any of the aforementioned areas can assist in achieving personal goals.

Lastly, the Program Objectives can link directly to the goal of providing opportunities for individuals to discover roles for responsible citizenship that promote the common good. This University mission goal marries very well with the purpose of the field of safety. As safety professionals, students and graduates should strive to better the community and the world. This can be accomplished by:

- applying academic competencies and methodologies in addressing and solving problems as a Safety professional,
- communicating effectively to audiences of varying demographics and agendas through the practice and application of learned technical and non-technical methodologies,
- performing all professional responsibilities (independently, as part of a team, or as part of a multi-disciplinary team) ethically, morally and respectfully,
- recognizing the societal and global impact of professional decisions and practices,
- and fostering a desire for lifelong learning through professional development.

Relationship with Other Programs

The AS, Safety Engineering Technology program is fully support by the same faculty, equipment, laboratories and other resources as the BS, Occupational Safety program.

The Occupational Safety program has an excellent relationship with the other technology programs due to the coordination of various ABET activities adopted by all ABET programs. This includes partnerships on student projects and co-sponsorship of guest speakers, lecture series etc. The Occupational Safety program has also worked with other faculty and programs to allow students to earn professional development credits (bonus points for exams) for participating in various departmental activities.

Occupational students and faculty have also served in various capacities across the campus and in the community. This includes institutional safety committee membership, internship partnerships with other programs and

The Occupational Safety program has offered assistance and support to other programs by assisting in various safety and health activities such as offering respirator fit tests for the ASCE student chapter projects. Safety students have also assisted in projects such as ventilation hood assessments in Mechanical ET labs and machine guarding assessments in Civil ET and Tech Ed labs. Student projects within the institution have also included ergonomic work station evaluations and walking working surface assessments on campus.

As students participate in various projects at the institution, Occupational Safety faculty encourage them to consult other faculty in their areas of expertise. The Safety faculty continues to express the importance of multidisciplinary knowledge and resources for all students.

Facilities made readily available to students within the program include a classroom shared with other ET programs including, but not limited to; Civil ET, Electrical ET and Mechanical ET. In addition an Occupational Safety lab adjoins the primary classroom for student projects. Faculty incorporates a large variety of laboratory activities into all safety courses. This lab also contains five desktop computers for student usage. These computers are occasionally used by other ET students for general word processing and internet access.

Signatures and Recommendations

The required sheet with signatures and recommendation are provided on page 1.

Appendix A

BS, Occupational Safety/ AS, Safety Engineering Technology

Department of Technology Continuous Improvement Plan



Faculty Data (No more than TWO pages per faculty member)

Name : _Melissa W. AbbottRank: Assoc	iate Professor
Check One: Full-time_X_ Part-time	Adjunct Graduate Asst
Highest Degree EarnedPh.D Date Degr	ee Received <u>December 2008</u>
Conferred by <u>West Virginia University</u>	
Area of Specialization <u>Occupational Safety and Occupat</u>	ional Health
Professional registration/licensureCSPYears of employment in higher education9Non-teaching experience14	Yrs. of employment at present institution _9 years Yrs. of related experience outside higher education14

To determine compatibility of credentials with assignment:

List courses you taught this year and those you taught last year: (If you participated in team-(a) taught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semeste	er <u>Course Number & Title</u>	Enrollment
Spring 2012	SFTY 1150: Safety Management and Concepts in Accident Prevention	30
	SFTY 3310: Ergonomics	10
	SFTY 4420: Systems Safety and Management	10
Fall 2011	SFTY 1100: Safety/Environmental Components of Industry	31
	SFTY 2291: Environmental Eng. Tech: Hazardous Waste	15
	SFTY 3300: Industrial Hygiene Applications and Practices	9
	SFTY 4400: Safety Engineering Design	12
Spring 2011	SFTY 1150: Safety Management and Concepts in Accident Prevention	22
	SFTY 3310: Ergonomics	14
	SFTY 4420: Systems Safety and Management	6
Fall 2010	SFTY 1100: Safety/Environmental Components of Industry	31
	SFTY 2291: Environmental Eng. Tech: Hazardous Waste	13
	SFTY 3300: Industrial Hygiene Applications and Practices	13
	SFTY 4400: Safety Engineering Design	5
(b)	If degree is not in area of current assignment, explain. Degree is in area of current	t assignment
(c)	Identify your professional development activities during the past five years.	
•	Attend American Society of Safety Engineers Professional Development Co	onference
•	Attend various ABET assessment workshops	
•	Completed PH.D. in Occupational Safety and Occupational Health	
•	ANSI Z87.1 Training	

- Textbook Reviewer
 - Global Harmonization and Hazard Communication Webinar
 - Profile XT Webinar

(d)	List awards/honors (including invitations to speak in your area of expertise) or special recognition
	In last five years.

- West Virginia University Safety and Health Extension Guest Lecturer for various courses
- Ergonomics Professional Development Seminar for Healthcare Administrative Professionals Guest Speaker
- (e) Indicate any other activities which have contributed to effective teaching.
 - Professional Consulting with various industrial facilities locally to expand on current knowledge and practices.
 - Community Service Learning Projects with SFTY 4420 students every spring semester.
- (f) List professional books/papers published during the last five years. **Dissertation:** Identification of Risk Factors Associated with Highway Fatalities Occurring to Law Enforcement Professionals.
- (g) List externally funded research (grants and contracts) during last five years. **OUCH Project**

(No more than TWO pages per faculty member)

Name :	Kimberly Murphy	Rank:	Associate Professor		
Check One:	Full-time <u>x</u>	Part-time	Adjunct	Graduate Asst.	
Highest Degr	ee Earned <u>MS</u>	Dat	e Degree Received	1990	
Conferred by Area of Speci	West Virginia Univeris	<u>ty</u> Health and S	Safety Engineering		
Professional 1 Years of emp Non-teaching	registration/licensure loyment in higher education g experience	<u>X</u> <u>21</u> <u>10</u>	Yrs. of employmen Yrs. of related expe	nt at present institution	<u>20</u> 10

To determine compatibility of credentials with assignment:

(b) List courses you taught this year and those you taught last year: (If you participated in teamtaught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	<u>Course Number & Title</u>	<u>Enrollment</u>
F10	SFTY 2260 Fire Prevention	15
F10	SFTY 2250 Safety Compliance & Law	20
F10	SFTY 4415 Safety Internship	9
S11	SFTY 2290 IH & Toxicology	18
S 11	SFTY 2280 Construction Safety	10
S 11	SFTY 1100 Sfty & Environmental Comp.	25
F11	SFTY 2260 Fire Prevention	15
F11	SFTY 2250 Safety Compliance & Law	15
F11	SFTY 1100 Sfty & Environmental Comp.	7
S 12	SFTY 2290 IH & Toxicology	16
S 12	SFTY 4420 Systems and Management	4
S 12	MANF 2250 TQM	25*
* Team taught (50%	6 load)	

(h) If degree is not in area of current assignment, explain. Degree is in area of current assignment

- (i) Identify your professional development activities during the past five years.
 - ASSE professional member since 2004
 - AMPLE Lead Instructor (2006 and 2009)
 - Science Fair Judge (2008)
 - OSHA 500 Trainer (2010)

- OSHA 510 Trainer (2010)
- OSHA 2250 Trainer (2008)
- ABET Professional Development Conference (2008)
- HLC Conference (2011 and 2012)
- HUD's Healthy Homes Lead Workshop (2008)
- GHS Webinar (2012)
- AutoCad training (2008)
- Excel and Word Training (2009)
- Developing Assessment webinar (2011)
- NSC Defensive Driving Course (2009)
- Member of BCSP Exam Writing Team (Pittsburgh Chapter)(2011)
- (j) List awards/honors (including invitations to speak in your area of expertise) or special recognition In last five years.
- (k) Indicate any other activities which have contributed to effective teaching.
 - Experiential approach to teaching
 - Field trips
 - Guest lectures
 - Professional Development Credits for students
- (l) List professional books/papers published during the last five years. None
- (m) List externally funded research (grants and contracts) during last five years. **OUCH Project**

Faculty Data (No more than TWO pages per faculty member)

Name : _William Bickerstaff	Rank: Adjunct Faculty
Check One: Full-time Part-tir	me AdjunctX Graduate Asst
Highest Degree EarnedM.S	Date Degree Received <u>1993</u>
Conferred by <u>West Virginia University</u>	
Area of Specialization <u>Safety and Environm</u>	nental Management
Professional registration/licensure Years of employment in higher education Non-teaching experience	_CSP Yrs. of employment at present institution _14 years 14 Yrs. of related experience outside higher education18 18
To determine compatibility of credentials with as	ssignment:

List courses you taught this year and those you taught last year: (If you participated in team-taught (a) course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semeste	er <u>Course Number & Title</u>	Enrollment
Spring 2012	SFTY 1100: Safety/Environmental Components of Industry SFTY 2210: Disaster Preparedness	32 26
Spring 2011	SFTY 2210: Disaster Preparedness	21
Fall 2010	SFTY 1100: Safety/Environmental Components of Industry	22
(b)	If degree is not in area of current assignment, explain. Degree is in area of current a	ssignment
(c)	 Identify your professional development activities during the past five years. Parkersburg Marietta Construction Education and Development – Contracts RIMS member (Risk and Insurance Management Society) National Safety Council American Society of Safety Engineers 	
(d)	 List awards/honors (including invitations to speak in your area of expertise) or specia In last five years. Authorized OSHA Training for Construction and General Industry 	l recognition
(e)	 Indicate any other activities which have contributed to effective teaching. Professional Consulting with various industrial facilities locally to expand on and practices. 	1 current knowledge
(f)	List professional books/papers published during the last five years. None	
(g)	List externally funded research (grants and contracts) during last five years. None	

(No more than TWO pages per faculty member)

Name : _Allen R. CutlipRank	: Adjunct Faculty
Check One: Full-time Part-time	e Adjunct _X Graduate Asst
Highest Degree EarnedBS D	Date Degree Received
Conferred by <u>Fairmont State College</u>	
Area of Specialization <u>Safety Engineering Te</u>	echnology
Professional registration/licensure CSP/ CIH Years of employment in higher education Non-teaching experience	Yrs. of employment at present institution _2 years _2 Yrs. of related experience outside higher education22 _22

To determine compatibility of credentials with assignment:

(a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	Course Number & Title	Enrollment
Spring 2012	SFTY 3335: Air Pollution	16
Spring 2011	SFTY 3335: Air Pollution	12

- (b) If degree is not in area of current assignment, explain. Degree is in area of current assignment
- (c) Identify your professional development activities during the past five years.
 - American Society of Safety Engineers Professional Member
 - American Industrial Hygiene Association Professional Member
 - Attended AIHA professional Development Conference
- (d) List awards/honors (including invitations to speak in your area of expertise) or special recognition In last five years.
- (e) Indicate any other activities which have contributed to effective teaching.
 - Professional Consulting with various industrial facilities locally to expand on current knowledge and practices.
 - Senior Safety/Industrial Hygiene Manager, MSES Consultants, Inc.
- (f) List professional books/papers published during the last five years. None
- (g) List externally funded research (grants and contracts) during last five years. None

(No more than TWO pages per faculty member)

Name : _David Sago	Rank: Adjunct Faculty
Check One: Full-time	Part-time Adjunct _X Graduate Asst
Highest Degree Earned <mark>BS</mark>	Date Degree Received
Conferred by <u>Fairmont State Colleg</u>	<u>se</u>
Area of Specialization <u>Engineering</u>	Technology
Professional registration/licensure Years of employment in higher education Non-teaching experience	XYrs. of employment at present institution11 years n11Yrs. of related experience outside higher education22 18

To determine compatibility of credentials with assignment:

(a) List courses you taught this year and those you taught last year: (If you participated in team-taught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	<u>Course Number & Title</u>	Enrollment
Spring 2012	SFTY 3345: Water Pollution	8
Spring 2011	SFTY 3335: Water Pollution	7

- (b) If degree is not in area of current assignment, explain. Degree is in area of current assignment
- (c) Identify your professional development activities during the past five years.
 - President of the WV Municipal Water Quality Association
 - Water Environment Federation National House of Delegates
 - WV Chapter 5S's (Select Society of Sanitary Sludge Shovelers)
- (d) List awards/honors (including invitations to speak in your area of expertise) or special recognition In last five years.
 - Water Environment Federation William D. Hatfield Award for outstanding performance and professionalism. This award is the highest honor that can be bestowed upon a manager of wastewater system.
- (e) Indicate any other activities which have contributed to effective teaching.
 - Professional Consulting with various industrial facilities locally to expand on current knowledge and practices.
 - City of Fairmont Wastewater Treatment Facility Operations Manager
- (f) List professional books/papers published during the last five years. None
- (g) List externally funded research (grants and contracts) during last five years. None

(No more than TWO pages per faculty member)

Name : _Rick HillRank: Adjunct Faculty
Check One: Full-time Part-time Adjunct X Graduate Asst.
Highest Degree EarnedBS Date Degree Received1990
Conferred by
Area of Specialization <u>Safety Engineering Technology</u>
Professional registration/licensure CSP Yrs. of employment at present institution Years of employment in higher education Yrs. of related experience outside higher education Non-teaching experience
To determine compatibility of credentials with assignment:

(a) List courses you taught this year and those you taught last year: (If you participated in teamtaught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Semester	r <u>Course Number & Title</u>	Enrollment
Spring 2011	SFTY 1100: Safety and Environmental Components of Industry	12
(b)	If degree is not in area of current assignment, explain. Degree is in area of current as	signment
(c)	 Identify your professional development activities during the past five years. Brickstreet Insurance – Professional Development Workshops/Seminars American Society of Safety Engineers 	
(d)	List awards/honors (including invitations to speak in your area of expertise) or special recognition In last five years. None	
(e)	 Indicate any other activities which have contributed to effective teaching. Professional Consulting with various industrial facilities locally to expand on and practices. Full-Time Loss Control Specialist with Brickstreet Insurance 	current knowledge
(f)	List professional books/papers published during the last five years. None	
(g)	List externally funded research (grants and contracts) during last five years. None	

(No more than TWO pages per faculty member)

Name : <u>David Fetty</u> Rank:	Adjunct Faculty
Check One: Full-time Part-tir	me Adjunct _X Graduate Asst
Highest Degree EarnedMS	Date Degree Received
Conferred by <u>West Virginia University</u>	
Area of Specialization <u>Safety Management</u>	
Professional registration/licensureX Years of employment in higher education Non-teaching experience	Yrs. of employment at present institution11 years 11 Yrs. of related experience outside higher education22 18
	•

To determine compatibility of credentials with assignment:

(a) List courses you taught this year and those you taught last year: (If you participated in teamtaught course, indicate each of them and what percent of courses you taught.) For each course include year and semester taught, course number, course title and enrollment.

Year/Sei	ster <u>Course Number & Title</u> <u>Enrollment</u>	
None		
(b)	If degree is not in area of current assignment, explain. Degree is in area of current assignment	
(c)	 Identify your professional development activities during the past five years. Chesapeake Energy – Professional Development Workshops/Seminars American Society of Safety Engineers 	
(d)	List awards/honors (including invitations to speak in your area of expertise) or special recognition In last five years. None	
(e)	 Indicate any other activities which have contributed to effective teaching. Professional Consulting with various industrial facilities locally to expand on current knowledg and practices. Full-Time Safety and Health Manager with Chesapeake Energy 	э
(f)	List professional books/papers published during the last five years. None	
(g)	List externally funded research (grants and contracts) during last five years. None	

Appendix C ABET Verification of Accreditation

For BS, Occupational Safety

Fairmont State University

(Formerly Fairmont State College) Fairmont WV, US www.fairmontstate.edu

Download Results

O Return to Search Results	Accredited Programs	
Occupational Safety, BS Accredited, 10/01/2006-Pre	esent	
Accredited Locations:	Main Campus	
Date of Next Comprehensive Review:	2013-2014	
Accredited By:	Applied Science Accreditation Commission	
Criteria [?]:	Safety	
International Mutual Recognition Agreement:	**	
O Return to Search Results		Next School >

**Users must review details for each Accord to determine if their program is recognized internationally. Last Updated: 10/1/2011