

Program Review

MS Safety

College of Information Technology & Engineering

November 2010



MARSHALL UNIVERSITY

Program Review
Marshall University

Date: November 1, 2010

Program: MS Safety

Degree and Title

Date of Last Review: November 2005

Recommendation

Marshall University is obligated to recommend continuance or discontinuance of a program and to provide a brief rationale for the recommendation.

Recommendation

Code (#):

1. Continuation of the program at the current level of activity; or
2. Continuation of the program at a reduced level of activity or with **corrective action**: Corrective action will apply to programs that have deficiencies that the program itself can address and correct. **Progress report due by November 1 next academic year**; or
3. Continuation of the program with identification of the program for **resource development**: Resource development will apply to already viable programs that require additional resources from the Administration to help achieve their full potential. This designation is considered an investment in a viable program as opposed to addressing issues of a weak program. **Progress report due by November 1 next academic year**; or
4. Development of a cooperative program with another institution, or sharing of courses, facilities, faculty, and the like; or
5. Discontinuation of the program

Rationale for Recommendation: (Deans, please submit the rationale as a separate document. Beyond the College level, any office that disagrees with the previous recommendation must submit a separate rationale and append it to this document with appropriate signature.)

1	<i>Allan Stern</i>	11-1-10
Recommendation:	Signature of person preparing the report:	Date:
1	<i>Allan Stern</i>	11-1-10
Recommendation:	Signature of Program Chair:	Date:
1	<i>Betsy E. Dulin</i>	11-1-2010
Recommendation:	Signature of Academic Dean:	Date:
Recommendation:	Signature of Chair, Academic Planning Committee: (Baccalaureate pgms only)	Date:
1	<i>Tracy Christoforo</i>	1-28-2011
Recommendation:	Signature of President, Faculty Senate/ Chair, Graduate Council:	Date:
Recommendation:	Signature of the Provost and Senior Vice President for Academic Affairs:	Date:
Recommendation:	Signature of the President:	Date:
Recommendation:	Signature of Chair, Board of Governors:	Date:

College/School Dean's Recommendation

Deans, please indicate your recommendation and submit the rationale.

Recommendation:

Continue at current level of activity.

Rationale:

(If you recommend a program for resource development identify all areas for specific development)

The MS in Safety Program is operating effectively and serves an important purpose in providing direct connections with industry. The program is the foundation of the university's longstanding partnerships with the Mine Safety and Health Administration and others, and has provided a foundation for much of the research and training activity conducted through Marshall's Center for Environmental, Geotechnical, and Applied Sciences and the new visualization laboratory in the Weisberg Engineering Laboratory building.

The program is adequately staffed, at present, by current members of the faculty who are primarily dedicated to the undergraduate safety program but are available for graduate courses, and also by adjunct faculty who are experts in specific areas of emphasis in the program. The MS program's association with an ABET-accredited undergraduate program in Safety also strengthens its value in the professional community.

Betsy E. Dulin

Signature of the Dean

11/4/10

Date

Marshall University Program Review

For purposes of program review, the academic year will begin in summer and end in spring.

Program: MS in Safety Technology

College: College of Information Technology & Engineering

Date of Last Review: November 2005

I CONSISTENCY WITH UNIVERSITY MISSION

MS in Safety technology degree program within the College of Information Technology and Engineering at Marshall University provides students with a comprehensive and broad-based preparatory experience, including rigorous and relevant coursework as well as real-world applications of skills, for entry-level occupational safety and health positions with industrial, commercial, governmental and service organizations. The mission of the Safety Technology program is to:

- A. Provide students with a high quality graduate education leading to the development of well prepared graduates with the academic, technical and social skills essential for successful employment in the occupational safety and health profession
- B. Provide students with authentic experiential learning opportunities including internships, service learning, outreach activities, facility tours and field exercises as well as professional meetings and conferences, that promote personal growth, professional collaboration, cultural diversity and a duty to serve and protect people, property and the environment, and
- C. Provide research opportunities for faculty and students in areas consistent with the environmental health and safety needs and interests of the region.

The MS in Safety Technology educational objectives were developed in accordance with the mission of Marshall University, and in particular, these specific aspects the Marshall University Mission Statement played a major role in the Safety Technology program development.

- Provide affordable, high quality undergraduate and graduate education appropriate for the state and the region;
- Promote economic development through research, collaboration and technological innovations;
- Educate a citizenry capable of living and working effectively in a global environment.

The MS in Safety Technology Program's Educational Objectives clearly reflect the College's mission through their focus on practice-oriented teaching, applied research, life-long learning and technology enhanced instructional methods.

The MS in Safety Technology's educational objectives describe the same career and professional competencies expected of students graduating with a Master of Science degree in Safety Technology. The curriculum designed to achieve these objectives prepares students for entry-level positions. The occupational safety and health profession is a career field concerned with the preservation of both human and material resources through the application of various principles drawn from such traditional disciplines as anatomy, biology, chemistry, communications, engineering, management, math, physics, physiology and psychology.

II ACCREDITATION INFORMATION

This program is not accredited.

III PROGRAM STATEMENT on Adequacy, Viability, Necessity and Consistency with University/College Mission

A. **ADEQUACY** Provide a narrative summary for each of the following in addition to the requested appendices.

1. **Curriculum:** The MS Degree in Safety has two areas of emphasis that students can specialize in. The first area of emphasis is Occupational Safety & Health. The second area of emphasis is Mine Safety. Both areas of emphasis require the students to complete 36 hours of course work following the MU graduate college which requires at least 18 hours of course work being in the 600 level and the other 18 hours done at the 500 level. The specific courses and electives are detailed in **Appendix 1**.

2. **Faculty:**

The Safety Technology program has five full time faculty members teaching within the department. We generally use several adjunct faculty members in the Mine Safety Program and do not use teaching assistants within the program.

Three faculty members hold doctoral degrees from accredited universities and the remaining two possess Master's degrees along with significant industrial world experience. One faculty member is a registered engineer, and three hold Certified Safety Professional designations and one is also a Certified Industrial Hygienist.

All faculty members attend both national and regional conferences and have presented papers and have had articles printed in professional journals during the past five years.

Appendix II Faculty Data Sheets have more information

3. **Students:** a. Entrance Standards: Students admitted to the Graduate Program must meet General Admission Requirements of the following:

- Have an undergraduate GPA of 2.50 or above.
- If a prospective student has a mean undergraduate GPA < 2.50, he or she must
 - Score at the mean or above on the verbal GRE and
 - Score at the mean or above on quantitative GRE and

- Score at the mean or above on the analytical GRE or
- Score at the mean or above on Miller Analogy Test

Safety Emphasis: Math 130 or equivalent; Physics 101 and 101Lab or equivalent and Chemistry 203 or equivalent.

Mine Safety Emphasis: Same admission requirements are required.

- b. Entrance Abilities: Most students admitted to the MS degree program have had GPA's above 2.50 so they did not have to take the GRE. Overall, we have had only two (2) students have to take the GRE. The summary of the students Entrance Abilities is located in **Appendix III**.
- c. Exit Abilities: Students graduating from the MS program generally have excellent GPA's at graduation. The exit abilities are listed in **Appendix IV**.

4. Resources: NOTE: If your program is accredited, refer to the appropriate page numbers in your accreditation report.

- a. **Financial:** Over the past five years, the budget allocation for this program has been satisfactory. In the last two years the university has provided the Division of Applied Science & Technology with adequate funding. A breakdown of the funding is as follows:

2010	\$68,300.00
2009	\$50,866.00
2008	\$50,866.00
2007	\$15,957.00 (budget reduction)
2006	\$16,000.00
2005	\$19,456.00

In 2007, the state required all programs to undergo a budget reduction; that is the reason for the figure. Additionally the program did not have that large of a budget to start with. The large increases noted for the following years are due to better resource allocation by the college for all programs.

What would happen if this program were terminated? Both the university and state would lose one of only several

graduate programs in the State of West Virginia. The graduate program in Occupational Safety was started in 1970 and has continuously catered to graduates for over 40 years. The MS in Mine Safety is one of only several programs in the United States and the only one in West Virginia. The Mine Safety Program is a joint venture between Marshall and the Mine Safety and Health Academy in Beckley, WV. Four faculty members would have to be terminated or reassigned; and over thirty to forty students would have to be accommodated; a secretary and several graduate assistantships would also be lost. The university, state and community would lose a vital resource reference in the field of Occupational Safety and Health in addition to the monetary loss this would bring to the area from losing all these resources.

- b. **Facilities:** Each faculty member has a dedicated office, in that office is a university computer for the use of the faculty member. Located within the office complex is a small library available for student use and within this library are two computers and a printer that they may use. Students have access to computer labs across the university located in major buildings. The university library provides a limited amount of funding to purchase new library holdings. Additionally faculty members have been able to make major purchases of a variety of ergonomic or industrial hygiene equipment from the upgraded budget. And, the program has had some generous donations to further purchase equipment made by Marathon Ashland Oil in the past year. Laboratory space is provided by the college in the Weisberg Engineering building to hold the Ergonomic and Industrial Hygiene labs.

5. **Assessment Information:** NOTE: This section is a summary of your yearly assessment reports.

- a. Provide summary information on the following elements. Please include this information in **Appendix V**.
- **Student learning outcomes:** The MS in Safety is very closely aligned with the undergraduate degree. While not accredited, the program does use a number

of the same courses. Therefore, the program has adopted a number of the same outcomes to be used as an assessment tool.

- This is an area we still need to work on and refine our outcomes and assessment tools/measures. We also need to close the feedback loop and work on obtaining the required data for assessment.

b. **Other Learning and Service Activities**

Provide a summary of learning and service activities not covered explicitly in section a. There are none.

c. **Plans for Program Improvement**

Based on assessment data, the program needs to develop concrete tools to help us better assess the objectives. After the undergraduate program has gone through the ABET visit, then we will have time to decide how best to meet this problem.

- d. **Graduate and Employer Satisfaction:** Most information acquired has come from anecdotal and personal contacts with students at conferences, or former students stopping by the office to talk when they visit. A better understanding of where our students are working after they graduate needs to be developed so contact can be made with them.

- e. **Attach the previous five years of evaluations of your annual assessment reports provided by the Office of Assessment.** Letters from the Office of Assessment follow this narrative.

6. **Previous Reviews:** The last program review recommended that the program be continued at the present level. The following gives some insights to the strengths and weaknesses we have identified. For the most part, the program is writing good behavioral objectives and trying to close the feedback loop and develop a plan on evaluation of the courses. With the ABET visit we feel we will be able to get a better “handle” on undergraduate assessment and that will strengthen our graduate assessment since a lot of the courses are dually numbered.

7. **Strengths/Weaknesses:** As emphasized by the various surveys sent out by the university and the anecdotal feedback the program has received, the safety technology program is an asset to West Virginia and the region because of the wide variety of classes, offered at convenient times and presents highly relevant materials by knowledgeable instructors. The delivery is presented in a challenging manner to high quality students having considerable work experience. The program has been responsive to local needs and has received compliments from both graduates and local employers on its benefits to both individuals and to West Virginia. This is a significant strength. The task of keeping up with advances and professional practices is increasingly challenging. The full-time faculty is focused on teaching core courses and implementing research findings into the course content. This benefits the students through exposure to expertise and real world issues. Students are also exposed to research through application of theory to investigate and solve real-world problems in the community. The program tries to keep the courses as up to date as possible through professional readings, attendance at national conferences, and adding new courses when needed. Keeping current and up-to-date is a major emphasis of the program. The program receives more position vacancy notifications and requests for internships from employers than the program can provide students. The future prognosis for continued safety positions remains strong. This is a major strength.

Weaknesses:

While graduate safety student enrollment has fallen from past years, which is most likely related to the changes in the economy, present enrollment seems to be steady. According to the Office of Institutional Research the program has approximately 42 declared majors within the department. It has been noted that student enrollment increases in poor economic times and decreases in good economic times. Individuals do not seek job retraining when they have good paying positions. However, there is always a need for safety professionals. Better advertisement of what the program can offer needs to be done. The other major weakness in the program is still the low faculty salaries compared two other universities with similar programs. It is important to provide competitive salaries to keep productive faculty. Salaries are nothing the program can do anything about.

- B. **VIABILITY** Provide a narrative summary for each of the following items in addition to requested appendices.

1. **Articulation Agreements:** The MS in Occupational Safety & Health has no articulation agreements. MS in Mine Safety has an articulation agreement with the Mine Safety and Health Academy.
2. **Off-Campus Classes:** The MS degree in Mine Safety offers courses through the Mine Academy in Beckley, WV.
3. **Online Courses:** The Mine Academy offers the MS degree in Mine Safety through on line courses. This information is found in (Appendix VI.)
4. **Service Courses:** The master of science degree has no service courses for other programs or departments. **Appendix VI.)**
5. **Program Course Enrollment:** The program course enrollment is adequate for the purpose of sustaining this program. The data are provided in Appendix VI.
6. **Program Enrollment:** The program enrollment is slowly growing. We are doing better in the Mine Safety Program rather than the OSHA safety area of emphasis. This information is summarized in **Appendix VII.** The trend lines for course enrollment, new students admitted and graduates is also provided.
7. **Enrollment Projections:** The need for this program is expected to continue for the immediate future. The program has been in continued operation for forty years and as long as there are accidents there will be a need for a program to turn out qualified safety professionals. The knowledge offered by this program will continue to be vital to the health and safety of workers throughout the United States. With the modernization of many third world countries and the continued environmental clean-up of work sites throughout the world, continued cooperation between environmental science and safety will progress. Employment opportunities will arise around the world as United States industries help third world countries develop. As the Department of Labor, Occupational Safety and Health Administration develops new standards to protect American workers, courses and workshops will need to be offered to meet these needs. Therefore, we continue to see a need for the program and enrollment numbers will hold steady and/or increase.

C. NECESSITY:

1. **Advisory Committee:** The program has the same advisory committee that helps oversee and advise the undergraduate

program. It is hoped that the advisory committee will provide some recommendations on how to better strengthen the MS program. Members of the committee have careers in a variety of professional organizations ranging from Federal OSHA to Insurance companies, Petroleum companies and others.

2. **Graduates:** The economy of the past year has decreased the number of professional positions available for our students to apply for. Students pursuing graduate work sometimes are already employed in field. We do know that there are at least three graduates working for Brick Street Insurance; some have gotten positions with Patriot Coal Company and others. This information is located in **Appendix VIII**. A better tracking system will be developed to keep track of MS graduates.
3. **Job Placement:** The department has met with the staff of the Career Services to explore ways to get students in both the BS and MS program more access to the services career planning provides. It is a universal problem trying to motivate students to take a more active role in finding professional positions when they graduate. Several graduate students are in the federal program designed to reeducate individuals who have lost their jobs due to downsizing or other reasons.

IV. RESOURCE DEVELOPMENT (If applicable)



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Office of Assessment & Program Review

April 5, 2010

Dr. Allan Stern, Chair
Safety Technology
CITE

Dear Allan:

I have completed my evaluation of the MS in Safety Technology's assessment of student learning. This letter will provide my general comments and suggestions for improvement. Although the scoring rubric we used to evaluate assessment reports is attached, I will not include numerical ratings in this letter. The reason for this is that we used the attached rubric is still relatively new and, as you will see, it raises the bar for what is considered excellent assessment. However, I ask that you use it for formative purposes to help improve your assessment plan. We also would appreciate your comments concerning this rubric.

Your learning outcomes (a through k) are appropriate and the majority of these are measurable. You also have done a good job of outcome/course mapping. Perhaps after Assessment Day, I could work with you on better aligning the former outcomes to assessment measures, developing a workable timeline for assessment, and begin to think about developing assessment rubrics.

Please see the attached rubric. If you have questions or concerns, please let me know.

Sincerely,

Mary E. Reynolds

Mary E. Reynolds
Director of Academic Assessment

C: Dr. Betsy Dulin, Dean, CITE



Office of Assessment & Program Review

April 6, 2009

Dr. Allan Stern, Division Chair
Applied Science and Technology
CITE

Dear Allan:

The Graduate Council and I have completed our evaluation of the MS in Safety Technology's assessment of student learning. This letter will provide my general comments and suggestions for improvement. Although the scoring rubric we used to evaluate assessment reports is attached, I will not include numerical ratings in this letter. The reason for this is that we used the attached rubric for the first time this year and, as you will see, it has changed considerably from the ones used in previous years. It raises the bar for what is considered excellent assessment considerably and, since it was not shared with programs before this assessment cycle, I'm not comfortable using it to give programs a formal rating this year. However, I ask that you use it for formative purposes to help improve your assessment plan. We also would appreciate your comments concerning this new rubric.

First, you have identified appropriate program student learning outcomes, which cover higher levels of learning. I also appreciate your outcome/course matrix, which indicates in which courses each outcome will be measured. Your narrative indicates that student competencies are evaluated using several complementary measures, although I can't tell from your report which outcome is assessed using which measure/s. However, I'm a bit confused by Appendix II. It appears to me that these are objectives for various courses. How does each one relate to the program's student learning objectives/outcomes? Also, benchmarks should indicate the standards by which each will be evaluated. So, for each outcome, you would identify assessment measures and then specify what performance you would expect (across students in your program) to show that the outcome is being met. Do you want a mean performance level of 80% accuracy on specified exam questions, a mean performance level of 3.0 (meets expectations) on each area of a 4-point rubric (with 4 meaning "exceeds expectations"), etc?

Please see the attached rubric and letter to Deans, Chairs, and Faculty detailing general suggestions for an effective assessment program. If you have questions or concerns, please let me know.

Sincerely,

Mary E. Reynolds

Mary E. Reynolds
Director of Academic Assessment

C: Dr. Betsy Dulin, Dean, CITE



Office of Assessment & Program Review

April 1, 2008

Dr. Allen Stern, Division Chair
Applied Science and Technology

Dear Allen,

The Graduate Council and I have completed our evaluation of the annual program assessment report for the MS in Safety Technology. This letter will provide feedback in the following manner. First, I will comment generally on each section of your report. Second, I will rate the following areas of the report on a four point scale (0 – 3, with 3 being the highest rating): student learning outcomes, assessment measures, and the feedback loop. Although I considered feedback from committee members, I made the final decision on ratings for all reports submitted. Third, I will offer suggestions for your consideration as you plan your assessment for the 2008-2009 academic year. Fourth, I will include my evaluation using the Primary Traits Analysis rubric and will include reviewers' comments for your information.

General Comments

Your program goals are appropriate. For the most part, I also like the student learning outcomes you have listed in Illustration 1. They are comprehensive, measurable, and stress higher order learning. The only outcomes I'd reword (or perhaps remove) are the ones that say, "Students will be able to successfully complete exams." The reason for this suggestion is that exams are assessment measures that evaluate outcomes. For these, I'd state what students will do in the exam "compare, evaluate, etc." to demonstrate the competencies on which they're tested. I am concerned that you have so many outcomes, but I understand that these are suggested by ABET, so it is probably a good idea to leave them as they are.

You list a number of different assessment measures in Illustration 1. However, the chart makes it difficult to tell which assessment measures go with which outcomes. It would be helpful to develop scoring rubrics for various assignments. This will allow you to identify your students' specific strengths and weaknesses regarding each. I also might add that, contrary to Illustration 1, your narrative says that outcomes are measured only with the comprehensive exam. I want to stress that it is desirable to measure outcomes throughout the program.

I assume that, to date, no useable data regarding student learning have been collected. However, you indicate that the faculty have determined that the comprehensive exam needs to be revised to more adequately evaluate student learning, and that this revision is underway.

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MS Safety

Ratings for Student Learning Outcomes, Assessment Measures, and the Feedback Loop

Student Learning Outcomes = 3. This rating was given because your student learning outcomes are comprehensive, measurable, support Marshall's educational goals, and span multiple learning domains. As suggested above, completing exams should not be listed as an outcome.

Assessment Measures = 3. This rating was given because the measures you identified in Illustration 1 are multiple, stress higher order learning, and allow performance to be gauged over time. Although the emphasis in your assessment program should be on the collection and use of direct data, please also try to incorporate some indirect data. Indirect data might include information from student and employer satisfaction surveys.

Feedback Loop = 0. This last category was difficult for me to assess using our current rubric. I acknowledge that you have evaluated your comprehensive exam and have determined that it needs some modification. However, your report did not show evidence that you have collected data regarding student learning and have made curricular modifications based on this information.

Suggestions to Consider as you plan your assessment strategies for the 2008-2009 academic year

In addition to revising the final exam, I have the following suggestions for the upcoming academic year. First, I suggest that, as you begin to collect assessment data, you not try to do everything at once. It is perfectly acceptable and encouraged to assess only a portion of your student learning outcomes each year. So, you may choose to do an in-depth assessment of one-third of your outcomes during year 1. If this is done using several assessment measures with detailed rubrics, you will be able to collect detailed data regarding the outcomes. These data should allow you to identify specific strengths and weaknesses regarding student learning (and hence, your program). Changes to strengthen these areas of learning can be implemented the following year, while you assess two more outcomes. This will allow you to assess all outcomes on a three-four year rotation and will give you sufficient time to allow curricular modifications to have an effect before the next assessment.

I appreciate the work you are doing to make your assessment stronger. If I can be of additional help, please do not hesitate to contact me at 62987 or at reynoldm@marshall.edu.

Sincerely,



Mary E. Reynolds
Interim Director of Assessment

C: Dr. Anthony Szwilski, Interim Dean, CITE



Office of Program Review and Assessment
Academic Affairs
Marshall University
Huntington, WV 25755-2003

file

To: Dr. Allan Stern, Chair, Safety Technology
From: Bob Edmunds, Coordinator for Program Review and Assessment
Date: June 14, 2006

Yearly Assessment Report for: MS Safety Technology

Thank you for submitting the Yearly Assessment Report for the program. Please use the information in this report to guide your assessment activities during AY 2006-2007

The Yearly Assessment Report for documenting AY 2005-2006 assessment activities is due by October 3, 2006. **If the program is scheduled for a program review during the 2006-7 academic year, the Program Review will suffice as the documentation of assessment activities and no separate report will be due.**

Reviewer summary of yearly assessment report:

What follows is a brief critique of the report you submitted for the academic year 2004-2005. In most cases the report has been reviewed by members of the University Assessment Committee.

Yearly Assessment Report Critique	
I. a. Program goals:	The program goals were stated
b. Learning outcomes and data collection:	The learning outcomes have been adopted from the ABET suggested outcomes. No data were reported as being collected or analyzed. The commentary referred to what would happen.
c. Results:	No specific results were reported in the narrative section.
II. BOT Initiative #3:	Not applicable to graduate programs
III. Plans for current year:	A new advisory committee is being constituted.
IV. Assistance needed:	None.
V. Lessons learned:	The need for qualified safety technologists is there, however, the program enrollment is declining. New efforts to recruit students are necessary.

Review of the Assessment Summary Chart "Marshall University: Assessment of Student Outcomes."

This chart will help the program and the University Assessment Committee monitor a program's patterns of evidence. Please remember that a program does not have to assess every outcome every year; however, within a 3-4 year period of time all program objectives must be evaluated, results analyzed, and actions taken (feedback loop) documented.

An assessment summary chart was provided. The chart is incomplete at this time as no data are reported, and no feedback loop/actions taken section was submitted. The program should make sure that data are being collected, reported, and analyzed. The outcomes have been listed and the benchmarks have been

established by ABET; however, no data from the program have been presented. Future charts should include data, analysis, results, and actions taken.

Efficacy of Assessment:

Programs are evaluated in terms of the development of measurable learning outcomes, the use of viable assessment measures, and the implementation of an effective feedback loop. The current report has been evaluated based on these categories. This year the report shows program scores from 2000-2001 to the present.

Scores					
Categories	2000-2001	2001-2002	2002-2003	2003-2004	2004-2005
I. Learning Outcomes	1	0	1	1	3
II. Assessment Measures	1	1	1	1	3
III. Feedback Loop	1	1	0	0	0
Total Overall Score:	3	1.5	2	2	6
Level of Implementation (efficacy of assessment)	1	1	1	1	2

Score Ranges	
Score Ranges 0-3 in each of the three categories	A score of 0 indicates minimum activity in the category
	A score of 1 indicates that a program is in the beginning stages of assessment
	A score of 2 indicates that a program is making progress toward implementing a viable assessment program
	A score of 3 indicates that a program is in the maturing stages of its assessment program

Levels of Implementation Efficacy of Assessment	
A total overall score between 0 and 3 indicates	Level 1: the program is in the beginning stages of its assessment of student academic achievement
A total overall score between 4 and 6 indicates	Level 2: the program is making progress toward implementing a viable assessment program
A total overall score between 7 and 9 indicates	Level 3: the program is in the maturing stages of continuous improvement of student academic achievement

Interpretation:

The program has recently instituted the ABET program objectives; however, no data are reported as being collected or analyzed. The program needs to use this data in closing the feedback loop.

Recommendations:

The program needs to continue to collect data. The report must indicate that data have been collected, analyzed, and used in making programmatic decisions.

General Comments:

The program has a strong set of assessment guidelines set forth by its accrediting body. The program should now concentrate on data collection and analysis.

Thanks so much for continuing to aid Marshall in its ongoing assessment efforts.

Enclosures

Appendix I Required/Elective Course Work in the Program

Degree Program: MS Safety OSHA Person responsible for the report: Dr. Allan Stern

Courses Required in Major (By Course Number and Title)	Total Required Hours 27	Elective Credit Required by the Major (student is to choose nine hours with advisor approval)	Elective Hours 9	Related Fields Courses Required	Total Related Hours
SFT 599 Occupational Safety Program	3	SFT 558 Hospital Safety	3		36
SFT 610 Philosophical & Psycho Con	3	SFT 553 International Safety	3		
SFT 630 Current Literature & Research	3	SFT 565 Incident Investigation	3		
SFT 540 Industrial Fire Prevention	3	SFT 589 Process Safety Mgmt	3		
SFT 554 Industrial Hygiene 1	3				
SFT 597 Occ. Safety Program Develop.	3				
SFT 645 Safety Engineering & Equip	3				
SFT 660 Human Factors in Acc. Prev. or	3				
SFT 560 Fundamentals of Ergonomics	3				
ES 660 Environmental Law 1	3				

Expand table as needed.

Appendix I Required/Elective Course Work in the Program

Degree Program: Mine SafetyPerson responsible for the report: Allan Stern

Courses Required in Major (By Course Number and Title)	Total Required Hours 15	Elective Credit Required by the Major as chosen with advisors approval	Elective Hours 21	Related Fields Courses Required	Total Related Hours 36
MSF 510 Survey of Mining	3	MSF 580 Special Topics	3		
MSF 511 Mine Safety Program Analy	3	MSF 592 Work Shop	3		
MSF 512 Mine Safety Legislation	3	MSF 621 System Safety in Mining	3		
MSF 514 Hazard Control in Mining	3	MSF 622 Accident Prev. in Mining	3		
MSF 626 Safety & Health Research	3	MSF 624 Mine Haulage	3		
		MSF 625 Philosophical Concepts	3		
		MSF 626 Sft & Health Research	3		
		MSF 627 Health Hazards	3		
		MSF 631 Mine Accident Invest.	3		
	15		21		36

Expand table as needed.

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: David Allan Stern Rank: Full Professor
 Status (Check one): Full-time Part-time Adjunct Current MU
 Faculty: Yes No

Highest Degree Earned: Ed.D Date Degree Received: 1977

Conferred by: Texas A&M University

Area of Specialization: Industrial Education

Professional Registration/Licensure _____ Agency: _____

Years non-teaching experience _____
 Years of employment other than Marshall _____
 Years of employment at Marshall 34
 Years of employment in higher education _____
 Years in service at Marshall during this period of review 5

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment. *(Expand the table as necessary)*

Year/Semester	Alpha Des. & No.	Title	Enrollment
2010/Spring	SFT 235 SFT 235 SFT 490	Introduction to Safety Introduction to Safety Internship	35 42 3
2009/Fall	SFT 235 SFT 235 SFT 490	Introduction to Safety Introduction to Safety Internship	32 35 2
2009 Spring	SFT 235 SFT 235 SFT 490	Introduction to Safety Introduction to Safety Internship	35 35 3

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

- 2) Activities that have enhanced your teaching and or research.

Attended the National ASSE Conference in Baltimore, MD 2010
Attended the National ASSE Conference in San Antonio, TX 2009
- 3) Discipline-related books/papers published (provide a full citation).
- 4) Papers presented at state, regional, national, or international conferences.
- 5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
- 6) Externally funded research grants and contracts you received.
- 7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
- 8) Community service as defined in the *Greenbook*.

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: Anthony B. Szwilski Rank: Professor
 Status (Check one): Full-time Part-time Adjunct Current MU
 Faculty: Yes No

Highest Degree Earned: Ph.D. Date Degree Received: 1975

Conferred by: University of Nottingham, United Kingdom

Area of Specialization: Geomechanics

Professional Registration/Licensure PE Agency: _____

Years non-teaching experience 7
 Years of employment other than Marshall 34
 Years of employment at Marshall 16
 Years of employment in higher education 34
 Years in service at Marshall during this period of review 5

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
2010/Spring	SFT 235	Intro to Safety	32
2010/Spring	SFT 482	Virtual Reality Apps/SFT	10
2009/Fall	SFT 235	Intro to Safety	35

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2. Activities that have enhanced his teaching and or research:

- * 2009 – 2012: Cyberinfrastructure for Transformational Scientific Discovery.
- * 2006 – 2009: Mine Safety Technology Innovation Capability and Regional Business Development for the U.S. Mining Industry.
- * 2000 – 2008: Developing an Intergraded Track Stability Assessment and Monitoring System for Railway Track.
- * 2009 – 2012: Development of the Visualization Resource Center at Marshall University.
- * 2009: Facilitate and Manage the Development of a State of West Virginia Land Stewardship Trust Fund Program.

3. Discipline-related books/papers published:

* Szwilski, A.B., Smith, J., et al., to published "Mine Safety Training: Advantage of Collaborative and Interactive Web-based Virtual Technology", Seventeenth International Symposium on Mine Planning and Equipment Selection (MPES 2008), Beijing, China, October 2008.

* Szwilski, A.B., Lees, Jr, H.M., et al., to published "Employing High Accuracy DGPS to Monitor Track Shift" 7th World Congress on Railway Research, Montreal, Canada, June 2006.

4. Papers presented at state, regional, national, or international conferences:

* "Mine Safety Training: Advantage of Collaborative and Interactive Web-based Virtual Technology" in Beijing, China, October 2008.

* "Employing High Accuracy DGPS to Monitor Track Shift" 7th World Congress on Railway Research, Montreal, Canada, June 2006.

5. Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations:

* Szwilski is

- Professional membership of Society of American Military Engineers.
- Professional membership of Midland Institute of Mining Engineers.
- Director, Center for Environmental, Geotechnical and Applied Science, 2006-2010.
- Director of the Southern West Virginia Brownfields Assistance Center, 2006-2010.
- Chair of the Appalachian States Coalition for Geological Hazards in Transportation, 2003-2010.
- Co-Director of the West Virginia Water Resource Management Program, with the West Virginia University Water Research Institute and West Virginia Department of Environmental Protection.

6. Externally funded research grants and contacts you received:

* Cyberinfrastructure for Transformational Scientific Discovery, \$1.35 million, EPSCoR-NSF.

* Mine Safety Technology Innovation Capability and Regional Business Development for the U.S. Mining Industry, \$4 million funding from the Economic Development Administration, State of West Virginia and industry.

* Developing an Intergraded Track Stability Assessment and Monitoring System for Railway Track: Intelligent Transportation Systems for Railroads. Federal Rail Administration funding. Total funding \$5.85 million.

* Development of the Visualization Resource Center at Marshall University, \$257,000, US. Department of Education.

* Facilitate and Manage the Development of a State of West Virginia Land Stewardship Trust Fund Program, \$128,000, West Virginia State Department of Environmental Protection.

7. Awards/honors (including invitations to speak in your area of expertise) or special recognition:

* Swilski is

- Professional Engineer (PE), Kentucky (# 12312); West Virginia (# 14269)
- European Engineer (Eur Ing)
- Chartered Engineer (CEng), United Kingdom

8. Community services as defined in the *Greenbook*:

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: Clair Roudebush Rank: Associate Professor
 Status (Check one): Full-time Part-time _____ Adjunct _____ Current MU
 Faculty: Yes No _____
 Highest Degree Earned: Ph.D Date Degree Received: 1987

Conferred by: Texas A & M University

Area of Specialization: Engineering Technology

Professional Registration/Licensure CSP Agency: BCSP

Years non-teaching experience 4
 Years of employment other than Marshall 22
 Years of employment at Marshall 8
 Years of employment in higher education 25
 Years in service at Marshall during this period of review 5

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
2010/Spring	SFT 372	Safety & Industrial Tech	28
	SFT 498	Safety & Health Legislation	10
	SFT 499	Safety & health Program Mgmt	13
2009/Fall	SFT 340	Industrial Fire Protection	20
	SFT 375	Construction Safety	11
	SFT 375	Construction Safety	12
2008/Spring	SFT 372	Safety & Industrial Tech	19
	SFT 498	Safety & Health Legislation	11
	SFT 499	Safety & Health Program Mgmt	13
2008Fall	SFT 340	Industrial Fire Protection	18
	SFT 375	Construction Safety	16
	SFT 375	Construction Safety	12

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2. Activities that have enhanced his teaching and or research:

* 2010: The Effect of Harmonic Radio Frequency Interference on Catastrophic Failure of Safety Related Control Circuits.

* 2006: An Analysis of Coefficients of Friction on Spray Painted and Decaled Asphalt Surfaces.

* 2004: Safety Performance Characteristics of Genetic Compressed Air Stream Cleaning Apparatus.

3. Discipline-related books/papers published:

* Determining Tolerate Risk in Industrial and Manufacturing Environments, Feature Article Professional Safety Magazine, October, 2005.

* Machinery Risk Assessment for Risk Reduction, Human and Ecological Risk Assessment, December, 2001.

* How Innovations in Manufacturing Technology Are Changing Machine Safeguarding Technology, ASSE Conference Proceedings, June, 1999.

* Analyzing Eye Protection Needs in the Technology Laboratory, Feature Article, Tech Directions: Prakken Publications Inc., Ann Arbor MI, November, 1998.

* Emergency Public Relation Procedures: A Vital Component of Emergency Preparedness in the Semiconductor Industry, Semiconductor Safety Association Journal, Fall, 1988.

* Developing Corporate Support for Engineering Technology Programs, Journal of Engineering Technology, Fall, 1987.

* Employee Headache and Nausea Complaints: How and When Corrective Action is Necessary, Feature Article Professional Safety, August, 1986.

4. Papers presented at state, regional, national, or international conferences:

None

5. Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations:

* Roudebush is

- Professional Membership of Voting member ASTM F-13 Subcommittee (Walkway Safety & Safety Footwear).

- Professional Membership of Voting member ASTM E-34 Occupational (Occupational Health and Safety).

6. Externally funded research grants and contacts you received:

* Summer Research Grant, \$2,000, "The Effect of Harmonic Radio Frequency Interference on Catastrophic Failure of Safety Related Control Circuits".

* Summer Research Grant, \$2,000, "An Analysis of Coefficients of Friction on Spray Painted and Decaled Asphalt Surfaces".

* Summer Research Grant, \$2,000, "Safety Performance Characteristics of Genetic Compressed Air Stream Cleaning Apparatus".

7. Awards/honors (including invitations to speak in your area of expertise) or special recognition:

* Roudebush is

- Association for Technology, Management & Applied Engineering.

- American Society for Testing & Materials.

8. Community services as defined in the *Greenbook*:

None

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: J. Patrick Conlon Rank: Assistant Professor

Status (Check one): Full-time Part-time _____ Adjunct _____ Current MU
Faculty: Yes No _____

Highest Degree Earned: M.S Date Degree Received: 1978

Conferred by: University of Central Missouri

Area of Specialization: Industrial Hygiene

Professional Registration/Licensure CSP Agency: BCSP

Years non-teaching experience 21
Years of employment other than Marshall 26
Years of employment at Marshall 4
Years of employment in higher education 3
Years in service at Marshall during this period of review 5

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
2009/Fall	SFT 453	International Safety & Health	27
	SFT 454	Industrial Hygiene 1	14
	SFT 454L	Industrial Hygiene Lab	14
	SFT 489	Process Safety Mgmt	10
2009/Spring	SFT 378	Safety Eval & Measurement	15
	SFT 4654	Incident Investigation Tech	6
2008/Fall	SFT 453	International Safety & Health	28
	SFT 454	Industrial Hygiene 1	13
	SFT 454L	Industrial Hygiene Lab	13
	SFT 489	Process Safety Mgmt	14
2008/Spring	SFT 465	Incident Investigation Tech	20

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2. Activities that have enhanced his teaching and or research:

- * Process Oriented Guided Injury Learning Workshop, Washington College, NSF (6/23 – 26/2008).
- * Japan Studies Institute Fellowship, San Diego State University, AASCU (6/1 – 20/2008).
- * Process Safety Management Faculty Workshop, Philadelphia, PA, AIChE (9/14 – 17/2008).

3. Discipline-related books/papers published:

* Conlon, Pat, "Chemical Risk Management: The Kanawha Valley Model", CAMEO Today, National Safety Council, November/December, 1994.

* Conlon, Pat, "Chemical Risk Communications: The Kanawha Valley Model", CAMEO Today, National Safety Council, March/April, 1995.

4. Papers presented at state, regional, national, or international conferences:

None

5. Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations:

* Conlon is

- Professional membership of American Society of Safety Engineers (1984 – present).
- Professional membership of American Industrial Hygiene Association (1990 – present).
- Professional membership of American Chemical Engineers (2006 – present).
- Marshall University Faculty – In – Residence (2008 – 2010).
- Marshall University Safety Committee (2009 – 2010).
- Faculty Senate, CITE representative (2008 – 2010).
- Faculty Senate Physical Facilities & Planning Committee (2007 – 2010, chair 2008 – 2010).
- First Year Experience Committee (2007 – 2010).
- Marshall University General Education Council (2009 – 2010).
- CITE Curriculum Committee (2007 – 2010).
- Pickens – Queen Teaching Awards Committee (206 – 2010, chair 2009 – 2010).
- Campus Internationalization Committee (2006 – 2010).
- United Way Campaign Committee, Faculty Senate representative (2008).
- CATL Executive Director Search Committee (2007 – 2008).
- Faculty Senate Legislative Affairs Committee (2006 – 2007).
- Construction Committee, American Industrial Hygiene Association (2002 – present).
- Construction Safety: Hazard Recognition and Management, PDC instructor, AIHce (2004 - 2007).
- Institute for the Development of Excellence in Assessment Leadership, ABET, (08/4 – 8/2008).
- Annual Meeting, Applied Sciences Accreditation Commission Summit, and Sustainable Assessment Process Workshop, ABET (10/27 – 30/2009).

6. Externally funded research grants and contacts you received:

None

7. Awards/honors (including invitations to speak in your area of expertise) or special recognition:

* Conlon is

- CIH, Comprehensive Practice, American Board of Industrial Hygiene, 1989 (expired 2005).
- CSP, Comprehensive Practice, Board of Certified Safety Professionals, 1990 (active).

8. Community services as defined in the *Greenbook*:

None

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: James D. McIntosh Rank: Assistant professor

Status (Check one): Full-time Part-time Adjunct Current MU
Faculty: Yes No

Highest Degree Earned: M.S.E. Date Degree Received: 1987

Conferred by: West Virginia University

Area of Specialization: Industrial Engineering/Occupational Safety and Health

Professional Registration/Licensure CSP Agency: BCSP

Years non-teaching experience	10
Years of employment other than Marshall	10
Years of employment at Marshall	5
Years of employment in higher education	
Years in service at Marshall during this period of review	5

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
2010/Fall	SFT 235	Intro to Safety	37
	SFT 235	Intro to Safety	35
	SFT 375	Construction Safety	
	SFT 460	Safety Training Methods	
2010/Spring	SFT 235	Intro to Safety	39
	SFT 235	Intro to Safety	35
	SFT 372	Principles of Ergonomics	9
	SFT 372L	Principles of Ergonomics lab	9
2009/Fall	SFT 235	Intro to Safety	32
	SFT 235	Intro to Safety	32
	SFT 460	Safety Training Methods	11
2008/Spring	SFT 235	Intro to Safety	32
	SFT 235	Intro to Safety	33
	SFT 373	Principles of Ergonomics	9
	SFT 373 L	Principles of Ergonomics Lab	8

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

2. Activities that have enhanced his teaching and or research:

* 2008 – 2010: Co-Principle Investigator, Mining Safety Innovations Project, USEDPA, State of West Virginia and private sources.

* 2007 – 2008: Project Team Member, Southern WV Browns Field Assessment Center.

3. Discipline-related books/papers published:

* McIntosh, James and Elswick, Donald, "OSHA Fall protection Requirements and Mining Falls", HR Journal, West Virginia Chamber of Commerce, Winter, 2008.

* McIntosh, James, D., "Protecting Workers at Hazardous Waste Sites". The AIHA Synergist, June/July 2007.

* McIntosh, James and Elswick, Donald, "Behavior Based Safety Programs: Helping WV Business Stay Open", HR Journal, West Virginia Chamber of Commerce, July 2007.

* Plumber, R.W., Stobble, T.J., Mogenson, J. and McIntosh, J., "A Collection of Information on the Appropriate Protective Equipment to be Used by Petrochemical Workers", Technical Report, US DOL-OSHA, October, 1984.

4. Papers presented at state, regional, national, or international conferences:

None

5. Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations:

* McIntosh is

- Professional membership of American Society of Safety Engineers (1984 – present).
- Professional membership of Industrial Hygiene Association (1984 – present).
- Professional membership of Alpha Pi Mu National – Industrial Engineering Honor Society.
- Professional membership of Tau Beta Pi – Engineering Honor Society
- Faculty Advisor American Society of Safety Engineers Student Chapter (2006 – 2010).
- Chairman of the West Virginia Governor's Safety Conference & Chamber of Commerce Safety and Health Committee (2007 – 2010).
- President of the American Society of Safety Engineers, Southern West Virginia Chapter (2005).
- Faculty Senate Budget and Academic Policy Committee (2008 – 2010).
- Faculty Senate Faculty Development Committee (2005 – 2006).
- Safety Technology Faculty Search Committee (2005 – 2006).
- CITE Dean Search Committee (2007 – 2008).

6. Externally funded research grants and contacts you received:

* Mining Safety Innovation Project, USEDPA, State of West Virginia and private sources, \$4 million.

7. Awards/honors (including invitations to speak in your area of expertise) or special recognition:

None

8. Community services as defined in the *Greenbook*:

None

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: John J. Rosiek, Jr. Rank: Adjunct
 Status (Check one): Full-time _____ Part-time _____ Adjunct Current MU
 Faculty: Yes ___ No ___

Highest Degree Earned: M.S. Date Degree Received: 1977

Conferred by: Marshall University

Area of Specialization: Safety
 Professional Registration/Licensure _____ Agency: _____

Years non-teaching experience _____
 Years of employment other than Marshall _____
 Years of employment at Marshall _____
 Years of employment in higher education _____
 Years in service at Marshall during this period of review _____

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
2009/Fall	Sft 482	Intro to Mine Safety	19

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

- 2) Activities that have enhanced your teaching and or research.
- 3) Discipline-related books/papers published (provide a full citation).
- 4) Papers presented at state, regional, national, or international conferences.
- 5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
- 6) Externally funded research grants and contracts you received.
- 7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
- 8) Community service as defined in the *Greenbook*.

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: Brian Carrico Rank: Adjunct

Status (Check one): Full-time___ Part-time___ Adjunct X Current MU Faculty: Yes X No ___

Highest Degree Earned: M.S Date Degree Received: 2003

Conferred by: Marshall University

Area of Specialization: Safety

Professional Registration/Licensure Agency: _____

Years non-teaching experience 11

Years of employment other than Marshall 20

Years of employment at Marshall 5

Years of employment in higher education 5

Years in service at Marshall during this period of review 5

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment. *(Expand the table as necessary)*

Year/Semester	Alpha Des. & No.	Title	Enrollment
2010/Fall	SFT 235	Intro to Safety	37
2009/Spring	SFT 235	Intro to Safety	39
2009/Spring	SFT 597	Occ Safety and Health Program Development	14
2006/Spring	SFT 235	Intro to Safety	32

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

- 2) Activities that have enhanced your teaching and or research.
- 3) Discipline-related books/papers published (provide a full citation).
- 4) Papers presented at state, regional, national, or international conferences.
- 5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
- 6) Externally funded research grants and contracts you received.
- 7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
- 8) Community service as defined in the *Greenbook*.

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: Stephen J. Hoyle Rank: _____

Status (Check one): Full-time _____ Part-time _____ Adjunct Current MU Faculty: Yes No _____

Highest Degree Earned: MS(LS) Date Degree Received: 1976

Conferred by: Simmons College, Boston, MA

Area of Specialization: Library/Information Science

Professional Registration/Licensure _____ Agency: _____

Years non-teaching experience _____
 Years of employment other than Marshall 33
 Years of employment at Marshall At least 15
 Years of employment in higher education _____
 Years in service at Marshall during this period of review _____

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment. *(Expand the table as necessary)*

Year/Semester	Alpha Des. & No.	Title	Enrollment
Fall 2005	MSF 626	Safety and Health in Mining	8
Summer 2008	MSF 626	Safety and Health Research in Mining	14
Summer 2010	MSF 626	Safety and Health Research in Mining	10

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

- 2) Activities that have enhanced your teaching and or research.
- 3) Discipline-related books/papers published (provide a full citation).
- 4) Papers presented at state, regional, national, or international conferences.
- 5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
- 6) Externally funded research grants and contracts you received.
- 7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
- 8) Community service as defined in the *Greenbook*.

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: William R. Williams Rank: _____

Status (Check one): Full-time _____ Part-time _____ Adjunct Current MU Faculty: Yes No _____

Highest Degree Earned: MS Date Degree Received: 2002

Conferred by: Marshall University

Area of Specialization: Mine Safety

Professional Registration/Licensure _____ Agency: _____

Years non-teaching experience	32
Years of employment other than Marshall	32
Years of employment at Marshall	2
Years of employment in higher education	8
Years in service at Marshall during this period of review	2

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
Fall 2007	MSF 621	System Safety Engineering	14
Spring 2010	MSF 621	System Safety Engineering	12
Summer 2010	MSF 622	Accident Prevention in the Mining Industry	14
Fall 2010	MSF 625	Philosophy of Mine Safety and Health	10

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

- 2) Activities that have enhanced your teaching and or research.
- 3) Discipline-related books/papers published (provide a full citation).
- 4) Papers presented at state, regional, national, or international conferences.
- 5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
- 6) Externally funded research grants and contracts you received.
- 7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
- 8) Community service as defined in the *Greenbook*.

Appendix II Faculty Data Sheet

(Information for the period of this review)

Name: Robert Cline

Rank: Instructor

Status (Check one): Full-time_____ Part-time_____ Adjunct Current MU Faculty: Yes
No _____

Highest Degree Earned: Masters

Date Degree Received: August 2009

Conferred by: Marshall University

Area of Specialization: Mine Safety

Professional Registration/Licensure: Professional Teaching License Agency: West Virginia
Department of Education

Years non-teaching experience	10
Years of employment other than Marshall	15
Years of employment at Marshall	2
Years of employment in higher education	2
Years in service at Marshall during this period of review	1

List courses you taught during the final two years of this review. If you participated in a team-taught course, indicate each of them and what percentage of the course you taught. For each course include the year and semester taught (summer through spring), course number, course title and enrollment.
(Expand the table as necessary)

Year/Semester	Alpha Des. & No.	Title	Enrollment
2010/ Fall	MSF 514	Hazard Control in Mining	16

NOTE: Part-time adjunct faculty do not need to fill in the remainder of this document.

1) If your degree is not in your area of current assignment, please explain.

(For each of the following sections, list only events during the period of this review and begin with the most recent activities.)

- 2) Activities that have enhanced your teaching and or research.
- 3) Discipline-related books/papers published (provide a full citation).
- 4) Papers presented at state, regional, national, or international conferences.
- 5) Professional development activities, including professional organizations to which you belong and state, regional, national, and international conferences attended. List any panels on which you chaired or participated. List any offices you hold in professional organizations.
- 6) Externally funded research grants and contracts you received.
- 7) Awards/honors (including invitations to speak in your area of expertise) or special recognition.
- 8) Community service as defined in the *Greenbook*.

Appendix IIA Teaching Assistant Data Sheet

GTA Name	Course No. (e.g. 101)	Course Name	Year 1 20__ - 20__			Year 2 20__ - 20__			Year 3 20__ - 20__			Year 4 20__ - 20__			Year 5 20__ - 20__		
			Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp

Complete graduate teaching assistant's name; course number and course name taught; indicate enrollment in the semesters taught.

Expand table as needed.

Appendix III
Students' Entrance Abilities (Graduate Programs): MS in Safety Technology

Year	N	Mean Undergraduate GPA	Mean GRE Verbal	Mean GRE Quantitative
Fall 2005	7	2.96		
Spring 2006	1	2.85	530	670
Fall 2006	5	3.02	320 (n = 1)	270 (n = 1)
Spring 2007	6	2.78		
Fall 2007	8	3.58	310 (n = 1)	440 (n = 1)
Spring 2008	10	3.34	420 (n = 1)	710 (n = 1)
Fall 2008	4	2.57		
Spring 2009	12	2.36		
Fall 2009	8	2.96	425 (n = 2)	545 (n = 2)
Spring 2010	2	3.24		

Expand table as needed.

Students with a mean undergraduate GPA of 2.5 or > are not required to take GRE.

Appendix IV
Students' Exit Abilities (Graduate Programs): MS in Safety Technology

Year	N	Mean GPA	Licensure Exam Results
2005 – 06	8	3.90	N/A
2006 – 07	7	3.79	N/A
2007 – 08	8	3.76	N/A
2008 – 09	9	3.80	N/A
2009 – 10	11	3.75	N/A

Expand table as needed.

Appendix V
Assessment Summary
Marshall University
Assessment of the Program's Student Learning Outcomes
 5 year summary
Component Area/Program/Discipline: Occupational Safety & Health

Program Level				
Program's Student Learning Outcomes	Assessment Measures (Tools)	Standards/Benchmark	Results/Analysis	Action Taken to improve the program
Ability to apply mathematics to safety problems	Specific safety courses: SfFT540; SFT 554; SFT 645; SFT 560	Problems given as exercises in classes	80 %	To be determined
Ability to analyze and interpret data	SFT 554	Industrial Hygiene analysis and interpretation problems	80%	To be determined
Ability to identify & solve problems	SFT 645; SFT 660; SFT 560	Machine guarding problems, ergonomic problems & Human factors	80%	To be determined
Understand Professional & Ethical responsibilities	SFT 610; SFT 554	Students are given professional ethic		
Ability to communicate effectively	All classes taken	Students write lab reports and papers on various problems	80%	To be determined
a knowledge of contemporary issues	SFT 630;SFT 554; SFT 560	Problems in field are identified and discussed	Essay questions on exams 80%	To be determined
design safety & health programs	SFT 597	Students write OSHA programs and learn evaluation techniques	Exam questions 80%	To be determined
Identify codes, standards & regulations	SFT 540; ES 660; SFT 554	Students learn to apply codes/standards in classes	Exam questions & projects done in class 80%	To be determined

**Appendix VI
Program Course Enrollment
MS Safety**

Course Number SFT	Course Name	Required/ Elective/ Service	Delivery Method	Location	Year 1 2005-2006			Year 2 2006-20207			Year 3 2007-2008			Year 4 2008-2009			Year 5 2009-2010		
					Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp
540	Industrial Fire	R	Td	Huntington		5			5			4			6				
553	International Safety & Health	E	Td	Huntington	5	2					3				2				
554	Industrial Hygiene	R	Td	Huntington		5						8			10				
558	Hospital Sfty	E	Td	Huntington											7				
560	Fundamentals Ergonomics	R	Td	Huntington		6	7		5			5			3				
565	Incident Investigation	E	Td	Huntington		8	2		2	3			6			4		7	
580	Special Topics	E	Td	Huntington								2							
585	Independent Study	E	Td	Huntington		1						2							
589	Process Safety	R	Td	Huntington		6	7		2	3		7							
589	ASP/CSP	E	Td	Huntington						6									
591	Workshop	E	Td	Huntington										9					
597	OSHA Health Program Devl	R	Td	Huntington		14			7			7			6				

679	Problem report	E	Td	Huntington		2				1		2				1			

Indicate all program and service courses. Please include all special topics courses offered as well as independent studies. When listing Independent studies, please list the **number of independent study students enrolled**, but **DO NOT** include individual names or the titles of the independent studies. Please use the following codes:

Required/Elective: Required = R; Elective = E (Please indicate all that apply; e.g. E + S, if the course is both an elective and a service course). Delivery Method: Traditional = Td, Online = O, Hybrid = H

Location: Huntington, South Charleston, Point Pleasant, etc. *Expand table as needed.*

**Appendix VI
Program Course Enrollment
Mine Safety**

Course Number MSF	Course Name	Required/ Elective/ Service	Delivery Method	Location	Year 1 2005-2006			Year 2 2006-2007			Year 3 2007-2008			Year 4 2008-2009			Year 5 2009-2010		
					Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp	Su	Fa	Sp
510	Survey of Mining	R	O				5												22
511	Mine Safety Program Analysis	R	O			9						16							
512	Mine Safety & Health Legislation	R	O						6									18	
514	Hazard Control in Mining	R	O						4						20				
580	Special Topics	E	O										27						
592	Work Shop	E	O					7											25
621	System Safety in Mining	E	O				5								28				
622	Accident Prevention in Mining	E	O						10										
624	Mine Haulage	E	O							15									
625	Philosophical Concepts in Mining	E	O		5							32							

626	Safety & Health Research in Mining	R	O														14	
627	Health Hazards in Mining	E	O					9										48
631	Mine Accident Investigation & Reporting	E	O			6											15	

Indicate all program and service courses. Please include all special topics courses offered as well as independent studies. When listing Independent studies, please list the **number of independent study students enrolled**, but **DO NOT** include individual names or the titles of the independent studies. Please use the following codes:

Required/Elective: Required = R; Elective = E (Please indicate all that apply; e.g. E + S, if the course is both an elective and a service course).

Delivery Method: Traditional = Td, Online = O, Hybrid = H

Location: Huntington, South Charleston, Point Pleasant, etc.

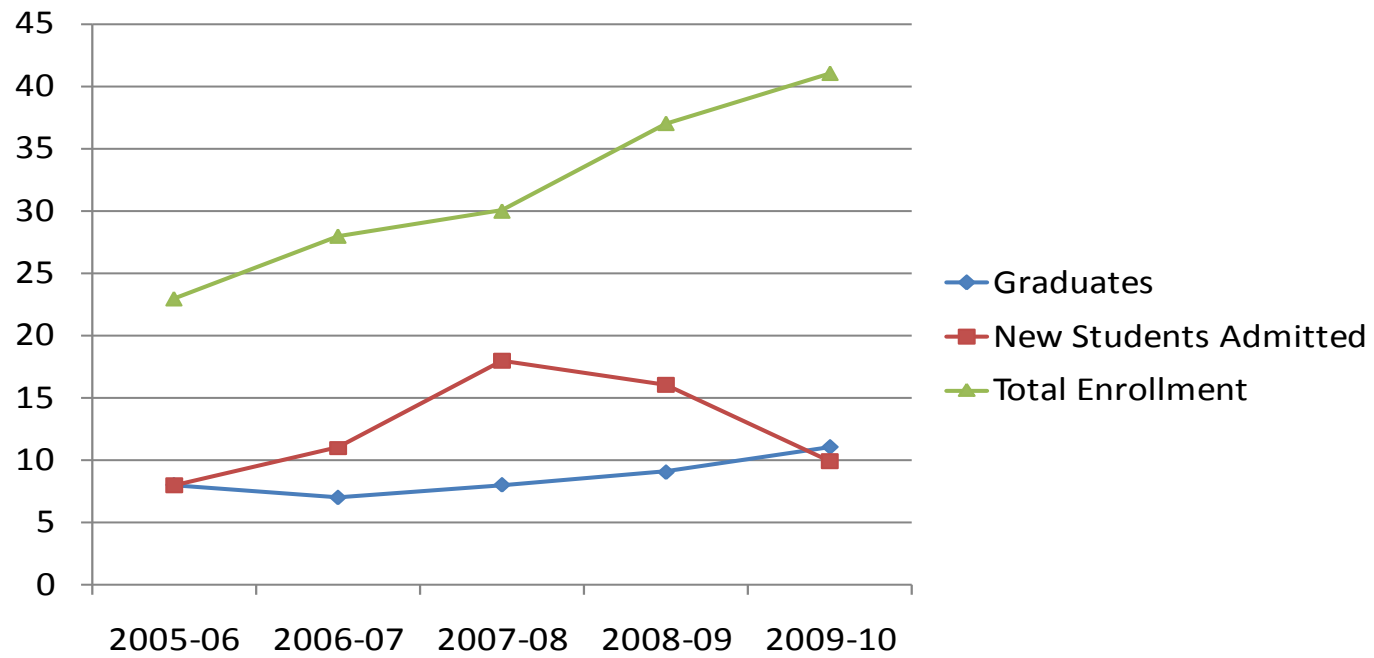
Courses are not coded per the designations

Expand table as needed.

**Appendix VII
Program Enrollment: MS in Safety Technology**

Students	Year 1 2005	Year 2 2006	Year 3 2007	Year 4 2008	Year 5 2009
New Students Admitted	8	11	18	16	10
Principal Majors Enrolled: Mine Safety	7	9	16	20	25
Principal Majors Enrolled: Occupational Safety and Health	9	13	9	7	10
Principal Majors Enrolled: Safety Management	1	1		3	
Principal Majors Enrolled: Ergonomics	1	1		1	1
Principal Majors Enrolled: Industrial Hygiene	2	1			2
Principal Majors Enrolled: No Area of Emphasis	3	3	5	6	3
Minors***					
Grand Total of Students Enrolled in the Program	23	28	30	37	41
Graduates of the program	8	7	8	9	11

Figure 1. Trend Line for Total Enrollment and Program Graduates:
MS in Safety Technology



**Appendix VIII
Job and Graduate School Placement Rates**

Year	# of graduates employed in major field	# of graduates employed in related fields	# of graduates employed outside field	# of graduates accepted to further graduate study	# of graduates not accounted for
2005	8				
2006	7				
2007	8				
2008	9				
2009	11				
Five –Year Total	43				

As the program does not have specific information on where the graduates work, the information presented in the chart is an estimation. Improvement needs to be done for the graduates as we do for the undergraduate program.