Outcome 2. Demonstrate knowledge and skills to use analytical techniques in the safety and health function.

The assessment is performed with respect to the key abilities that the students are expected to acquire in specific courses that have been identified with respect to this outcome.

Course	Key abilities	Performance indicators
SAFM 501	Required course: safety performance drivers	Student will be able to describe typical industrial roles and accountability methods after successfully completing SAFM 501.
SAFM 502	Required course: checklists and inspections of physical hazards	Student will be able to identify OSHA's top three hazards and control methods after successfully completing SAFM 502.
SAFM 534	Required course: comprehensive fire plan	Student will be able to describe the basic elements of fire behavior and chemistry as it relates to ignition prevention, heat transfer, fire growth, and fire dynamics after successfully completing SAFM 534.
SAFM 689	Required course: field experience	Students will apply fundamental safety skills in the field including inspection for physical hazards, audit and training
SAFM 533	Elective course: comprehensive disaster preparation plan	Student will assess and evaluate potential disaster preparation hazards
SAFM 539	Elective course: comprehensive security plan	Student will assess and evaluate security hazards and potential losses

Tools used:	SAFM assessment rubric; employer survey; exit survey
Data Collected:	SAFM assessment rubrics: student projects; homework; final grades Surveys: Likert scale data

Frequency of data collection:	SAFM Assessment rubrics: every semester Exit survey: every semester, third week in November or April
Analysis Method:	Data reduced, tabulated and distributed as summaries to faculty and Visiting Committee members
Closing the loop:	This outcome is subject to review based on performance criteria and metrics and specific action items are developed, if necessary, to revise the content of the courses.

Performance criteria and metrics:

a) SAFM Assessment rubrics: grades of 1-3 need no work to supporting courses;
b) Rubric grades of 4 or 5 need addressed by faculty as a whole, then individual instructors
c) Employer survey: qualitative data written out verbatim, quantitative data tabulated
d) Exit survey: qualitative data (open-ended) written out verbatim, quantitative data tabulated

Assessment Tool:

SAFM Assessment Rubric

Assessment Rubric

Course Objectives Against Student Learning Outcomes

SAFM XXX: [semester, year]

Safety Function Integration

Course Objective	SLO	Quantitative Value (1-5)	Assessments * Used (See key*)	Decision P: 3-5; F: 1-2)	Remedial Action	Target Date for Completion
1	1,2,		MQ1, P, E			
2	4,6,		MQ2, P			
3	1		MQ3, P			
4	1		MQ4,6,7, 12, P			
5	3,6		MQ14, O			
6	2,3,5,6		FQ2,15			
7	1,3		FQ2,22,18 P, Pre			

Key to assessment
M = Midterm exam
Q = Question
Final = Final exam
P = Project
Po = Portfolio
Pre = Presentation or oral reports
Man = Manual
E = Exercise or Abstract
C = Computation
RP = Role-Playing
FT = Field Trip
L = Lab
O = Other

Closing the Loop: Details of efforts to correct deficiencies (G. Winn, instructor)

** For [semester, year] the following deficiencies were noted:

** For [semester, year], the following actions were taken to address deficiencies:

Additional remedial work, if any:

Faculty discussion, if any:

	Safety Management Program Outcomes						
SAFM 501Objectives	**Outcome 1**	**Outcome 2**	**Outcome 3**	**Outcome 4**	**Outcome 5**	**Outcome 6**	
1. Describe an organization's safety mission	X		X	X			
2. Historical development of modern safety management			X	X			
3. Roles of personnel involved in safety management	X						
4. Major management theories related to safety management	X						
5. Safety-performance drivers in the various roles in an organization			X			X	
6. Models of accountability in safety management used to integrate the function	X	X			X	X	
7. Measures of safety performance used to evaluate persons involved in safety-functional roles		X	X		X	X	
8. Current examples of safety management and variants in industry	X		X				

Addendum to Spring, 2011 Rubric Assessment:
Lecture notes:

Assessment Tool:

SAFM Employer Survey

Employer/Supervisor Survey

West Virginia University
Safety Management Graduate Program
2014 Employer/Supervisor Survey

The Safety Management, Master of Science program at West Virginia University is conducting this survey, as part of an ongoing assessment program to evaluate its educational objectives and outcomes. We desire to continuously improve the quality of the educational experience that we provide to our students and believe your assessment of our safety management graduate can help guide us to make those improvements. Perhaps the best measure of the quality of the education and training we give our students is the evaluation of their employers/supervisors.

We request that you take the time to respond to this questionnaire. All responses are anonymous and will be held in the strictest confidence. We sincerely thank you for your time and effort in this assessment process. Please return your completed survey in the self-addressed, stamped envelope by October 15th

Listed below are skills and abilities that we expect our graduates to possess at the time of graduation. Listed below are a series of questions addressing educational outcomes for the safety management program at West Virginia University.

Please base your evaluation on the following scale.

1 = strongly disagree

2 = disagree

3 = neutral

4 = agree

5 = strongly agree

Circle your rating for each question.

If for some reason a topic does not pertain to you, leave it blank.

We are particularly interested in comments (good or bad) regarding the quality of this individual's educational and professional training relative to graduate safety professionals from other institutions that have similar years of experience.

1. This individual has demonstrated adequate problem solving skills and abilities. (1 2 3 4 5) _____

2. This individual has demonstrated adequate understanding and application of safety management methodologies to successfully solve safety, health or environmental problems (1 2 3 4 5)

3. This individual has demonstrated adequate oral and written communication skills and abilities (1 2 3 4 5)

4. This individual has demonstrated adequate ability and skill to use computer hardware and software. (1 2 3 4 5)

5. This individual has demonstrated adequate ability and skill to work in project teams/groups. (1 2 3 4 5)

6. This individual has demonstrated adequate ability to work on interdisciplinary problems required.
   (1 2 3 4 5) _____

7. This individual has demonstrated a level of understanding and awareness of ethics. (1 2 3 4 5) _____

8. This individual has demonstrated a level of knowledge and awareness of contemporary issues affecting safety suitable for their current professional position. (1 2 3 4 5) _____

9. This individual has demonstrated a level of commitment to and pursuit of self-learning/continuing education. (1 2 3 4 5) _____

[survey ends]

Assessment Tool:

SAFM Exit Survey

SAFM Graduate Exit Survey

Safety Management Graduate Student Exit Survey Semester 20XX

Do not put your name on this survey

The Masters of Safety Management program at West Virginia University is conducting this survey as part of an ongoing assessment program to evaluate its educational objectives and outcomes.

We desire to continuously improve the quality of the educational experience that we provide to our students and believe your assessment of your graduate educational experience can guide us to make those improvements.

Your responses are totally confidential and will only be used to benchmark and improve the graduate Safety Management program at WVU.

Listed below are a series of questions addressing components of your educational experience in the Safety Management Program.

Please complete the following survey and return it. It is **important** that you fill it out completely and honestly. If you are taking comprehensive examinations, return it to the proctor at the end of the day. If you are defending a thesis or problem report return it to the secretary in Room 321 MRB.

1) From 1 to 5, rank the following topics as to your understanding. Give a 5 to the topic with which you are most knowledgeable. Give a 1 to the topic in which you have the least knowledge. (Use N/A if you didn't take a course in the area)

_____ Safety Management

_____ Safety Legislation and Regulations

_____ Hazard Awareness (Recognition) and Control

_____ Loss Control and Recovery

_____ Safety and Health Training

_____ Economics, Safety Evaluation and Research

_____ Managing Fire Safety

_____ Industrial Hygiene

_____ Environmental Management and Permitting

2) Circle the class numbers in which you worked in **groups** or on group projects.

501	Safety Management Integration
502	Controlling Environmental and Personnel Hazards
505	Safety Legislation and Compliance
528	Economic Aspects of Safety
534	Managing Fire Safety
550	Loss Control and Recovery
552	Safety and Health Training
640	Instrumentation for Safety Managers

2a) Which **group** class project do you feel was the most successful? Why?

2b) Which **group** class project was the least successful? Why?

3) Circle the class numbers in which you worked on **individual** projects.

501	Safety Management Integration
502	Controlling Environmental and Personnel Hazards
505	Safety Legislation and Compliance
528	Economic Aspects of Safety
534	Managing Fire Safety
550	Loss Control and Recovery
552	Safety and Health Training
640	Instrumentation for Safety Managers

3a) Which **individual** project do you feel was the most successful? Why?

3b) Which **individua**l project was the least successful? Why?

4) Rate your chances of getting ***another*** advanced degree at some point in your life

Very Unlikely Extremely likely

1 2 3 4 5

For the following skill sets, please rate your experience in the MS Safety Management program.

1 = extremely poor experience, poorly prepared in this area

5 = excellent experience, well prepared for this area

Oral Communication	1	2	3	4	5
Written Communication	1	2	3	4	5
Ethical and Professional Responsibilities in the Workplace	1	2	3	4	5
Costs & Benefits, Research and Statistics	1	2	3	4	5
Computer applications: Spreadsheets, Presentation Software	1	2	3	4	5
Developing Evaluation Tools	1	2	3	4	5
Problem Solving	1	2	3	4	5
Data Analysis and Interpretation	1	2	3	4	5
Developing Safety Programs and Manuals	1	2	3	4	5
Summarizing and Understanding Regulations	1	2	3	4	5

6) List one or two areas in which you feel the Safety Management program excels. Why?

7) List one or two areas in which the Safety Management program needs improvement. Why?

8) What was the most valuable (useful) **course(s)** you took while enrolled? Why?

9) What was the most valuable **activity** you undertook while enrolled in the program?

10) List the course(s) which you feel did not have sufficient technical/scientific content.

11) List the course(s) which you feel did not have sufficient professional content

12) List the course(s) that you feel had significant **overlap** of material. Please **specify** the material that overlapped.

13) Which **topic(s**) in the program do you feel might need additional coverage?

14) Please check the following: 5 = Strongly agree; 1 = Strongly disagree

	1	2	3	4	5
The classes were scheduled at convenient times……..					
The Reading Room (library on 3rd floor) was helpful to me……..					
The computer facilities in the department and college were helpful to me……					
I improved my ability to write effectively……...					
I improved /made more effective my oral communication skills…					
I improved my problem-solving skills……					
I improved my computer skills……					
I improved my ability to work as part of a team……...					
I improved my knowledge of current technologies/issues in the safety field……					

15) Additional comments:

[survey ends]