

IET Department/Program Assessment Plan
 Program: Safety and Health Management

Program Goals	Related Department Goals	Related College Goals	Related University Goals	Method(s) of Assessment (What is the assessment?)	Who/What Assessed (population, item)	When Assessed (term, dates)	Criterion of Achievement (Expectation of how good things should be?)
1. Maintain clear, consistent, and transparent program paths from application through graduation for effective student progress at all program locations.	1, 2, 3, 7	1, 2, 4	1, 2	Program applicants meet prerequisites specified in degree application process	BS and BAS SHM program applicants	Each spring quarter	80% of program course prerequisites met at time of application acceptance, 100% met within two quarters of acceptance
				Degree programs as presented in the catalog and the SHM website consistent with documentation	University catalog and SHM website	Each fall quarter	100% accuracy
				Survey of advisees regarding advising experiences	Advisees in all programs	Advising week each quarter	80% satisfaction with advising No significant difference of advising value between locations
				Plan of study maintained for each student in an SHM program that will lead to successful degree completion	Plan of study by student and advisor	Each quarter	100% of students have current achievable plans
				Plans published on applicable programs for transfer to SHM	TAPP forms	Each spring quarter	100% coverage for applicable associates degree programs
				Survey of mentors on student internship preparedness	Mentor review forms	Each fall quarter	Favorable summary review of 80% of students on mentor summary review

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				Review of student progress toward and achievement of program educational objectives	Student learning outcome program level checklists	Each fall quarter	100% coverage of student learning outcomes
2. Maintain a functional and effective combination of programs and courses at all locations that meets the needs of the safety and health management profession.	1, 2, 3, 7	1, 2, 4	1, 2, 4, 6	Survey of graduates one year after graduation regarding use of information from programmatic coursework	Recent graduates	Each winter quarter	75% support/use of course 75% support/use of specific skills No significant difference of program and course value between locations
				Needs analysis by the SHM advisory board	Industry	First year of three year cycle	Report submitted for faculty review
				Program goals reviewed by faculty for consistency with university, college, department, and ABET-ASAC Safety criteria	Program goals	Each winter quarter	100% inclusion of specified criteria
				Educational objectives published	University catalog and SHM website	Each winter quarter	100% inclusion of educational objectives in website and catalog
				Survey of mentors on student internship preparedness	Mentor review forms	Each fall quarter	Identify potential KSA deficiencies in programs and courses to be included in needs analyses
				Program evaluation-	Peer programs,	First year of	Report submitted to industry

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				comparison by faculty	industry studies, literature	three year cycle	advisory board
3. Maintain student learning outcomes that assure students are prepared for careers in safety and health management.	1, 2, 5, 9, 10	1, 2, 4	1, 2, 4, 6	Student learning outcomes reviewed by faculty for consistency with university, college, department, and ABET-ASAC Safety criteria	Student learning outcomes	Each winter quarter	100% inclusion of specified criteria in assessment tools
				Needs analysis by the SHM advisory board	Industry	Second year of three year cycle	Report submitted for faculty review
4. Maintain an effective Continuous Process Improvement system.	1, 2, 3, 4, 5, 7, 8, 9	1, 2, 3, 4, 5	1, 2, 6	Course Quality Improvement form completed by each instructor of record at completion of course	Courses	Each quarter courses are taught	100% submission of forms
				ABET-ASAC Safety accreditation	BS Program	ABET review cycle, initial site visit fall 2009	No deficiencies, no more than five minor issues
				Needs analysis by the SHM advisory board	Implementation	Third year of three year cycle	100% coverage, review, and evaluation by faculty
5. Maintain the curriculum establishes necessary core math, science, and general education components to	1, 2, 3, 5	1, 2, 4	1, 2, 4, 6	Established university general education requirements appropriate to discipline accurate and published	SHM website	Winter quarter	100% accuracy

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achieve student learning outcomes.				Transfer plans for community college and direct transfer agreement associates degrees identifying general education requirements appropriate to discipline accurate/published	SHM website, TAPP forms	Winter quarter	100% accuracy
				Admission prerequisites to SHM baccalaureate programs accurate and published	SHM website, TAPP forms, SHM admission form	Winter quarter	100% accuracy
6. Faculty sufficient in number and qualifications to meet teaching, service, and scholarship expectations of university	1, 5, 7, 8, 9, 10	1, 2, 3, 4, 5	1, 2, 4, 5, 6	Faculty teaching load	Credit hours taught	Spring quarter for current academic year	36 credit hour maximum per faculty per academic year
				Number of students in course	Course enrollment	Day 10 each quarter	Enrollment in any course does not exceed 25 for non-DE courses, 35 for DE courses
				Faculty involvement with professional societies	Professional Records	Follows university review cycle (1-3 years)	Each faculty will actively participate in one or more safety-related professional organization
				Diversity of education and experience covers each learning outcome	Professional Records	Follows university review cycle (1-3 years)	100% of learning outcomes covered by faculty education or experience

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				Adjunct instructors meet minimum university and program requirements	Professional Records	Follows university review cycle (1-3 years)	100% of adjunct instructors possess at least two of <ul style="list-style-type: none"> safety-related education at the masters level professional safety-related credential, or safety-related experience
				Participation in scholarly work appropriate to safety	Professional Records	Follows university review cycle (1-3 years)	Each faculty member will present original research once every three years in or at a safety-related publication or seminar
				Faculty participate in service and other professional activities to maintain knowledge of the safety and health management discipline	Professional Records	Follows university review cycle (1-3 years)	Each faculty member will conduct or participate in one service related safety activity every three years.
7. Facilities	1, 4, 6	1, 5	1, 2, 3, 4	Number of students in classroom	Students	Day 10 each quarter	Enrollment in any course does not exceed classroom limits
				Equipment maintained in safe working order	Equipment	Spring quarter	100% of equipment operating correctly
				Equipment demonstrated in class consistent with contemporary use	Equipment	Spring quarter	100% of equipment consistent with contemporary use in practice

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8. Support and resources from various sources are utilized to improve the equipment, materials, and knowledge of the program.	1, 4, 5, 6, 7, 8, 9, 10	1, 3, 4, 5	1, 2, 3, 4, 5	Professional development resources used to enhance program knowledge base	Professional Records	Follows university review cycle (1-3 years)	Each faculty will attend one or more course content related or learning outcome related classes or seminars
				Foundation account sufficient to repair and/or replace equipment and materials as needed to meet program objectives	Foundation account	Spring quarter	Account balance not diminishing and all equipment and resources needed available and in good working order
				Professional development resources used to enhance program knowledge base	Professional Records	Follows university review cycle (1-3 years)	Each faculty utilizes more than half of the available funds to attend one or more classes or seminars related to program goals, course content, or learning outcomes
9. Maintain SHM program in accordance with applicable ABET-ASAC program criteria.	1, 5, 7	1, 4	1, 2, 4, 5	Applicable ABET-ASAC program criteria met	Program criteria	Year preceding ABET-ASAC self-study report	Applicable program criteria are addressed in self study report

IET Student Learning Outcome Assessment Plan Preparation Form

Program: Safety and Health Management

Student Learning Outcomes (performance, knowledge, attitudes)	Related Program Goals	Related Departmental Goals	Related College Goals	Related University Goals	Method(s) of Assessment (What is the assessment?)*	Who Assessed (Students from what courses – population)*	When Assessed (term, dates) ***	Standard of Mastery/ Criterion of Achievement (How good does performance have to be?)
1. Graduates will be able to apply knowledge of mathematics, science, and applied sciences.	2, 3, 5	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Rubric-based evaluation of projects and examinations including application of algebra and statistics	SHM 351/2/3 SHM 471/2/4/5/7	F/W, W/S, S annually	Successful completion of projects 80% on math related questions on exams
					Rubric-based evaluation of projects and examinations including application of chemistry	SHM 377, 472, 477	S, W, F annually	Successful completion of projects 80% on math related questions on exams
					Rubric-based evaluation of projects and examinations including application of biology	SHM 472	Winter annually	Successful completion of projects 80% on math related questions on exams

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					Rubric-based evaluation of projects and examinations including application of physics	SHM 351, 471	F/W, F annually	Successful completion of projects 80% on math related questions on exams
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
2. Graduates will be able to design and conduct experiments, as well as to analyze and interpret data.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Examination on data manipulation and presentation	SHM 351	Fall/Winter annually	80% correct answers on data manipulation questions
					Examination on data analysis	SHM 352/3	W/S, S annually	80% correct answers on data analysis questions
					Rubric-based evaluation of project work including data collection design and data interpretation	SHM 471/2/4/5/7	F, W, W, S, F annually	Completion of project to client specifications
					Rubric-based evaluation of project work including data interpretation	SHM 485	Spring annually	Completion of project
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response

Student Learning Outcomes (performance, knowledge, attitudes)	Related Program Goals	Related Departmental Goals	Related College Goals	Related University Goals	Method(s) of Assessment (What is the assessment?)*	Who Assessed (Students from what courses – population)*	When Assessed (term, dates) ***	Standard of Mastery/ Criterion of Achievement (How good does performance have to be?)
3. Graduates will be able to formulate or design a system, process, or program to meet desired needs.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Examination of design, process, life cycle terminology knowledge	SHM 352	W/S annually	80% correct answers on terminology questions
					Rubric-based evaluation of project work to develop a written safety program.	SHM 371/3/5/7/9	F, W, S, S, W annually	Completion of project to client specifications
					Rubric-based evaluation of project work including project design, proposal, performance, and final report/presentation of project to audit performance	SHM 471/2/4/5/7	F, W, W, S, F annually	Completion of project to client specifications
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
4. Graduates will be able to function on multidisciplinary teams.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Peer evaluation of group participation skills	SHM 321/3/5/7 (students take one)	W, F/S, S, F annually	80% positive response on peer review form

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					Examination of team membership responsibility knowledge	SHM 351/2/3 (bacc. students take three, minor/certificate students take two)	F/W, W/S, S annually	80% correct answer on team questions on final exam
					Peer evaluation of team participation skills	SHM 371/3/5/7/9 (bacc. students take three, minor/certificate students take two)	F, W, S, S, W annually	80% positive response from team members on participation and role
					Team member evaluation of leadership skills	SHM 471/2/4/5/7 (bacc. students take three, minor/certificate students take one)	F, W, W, S, F annually	80% positive response from team members on team leadership/management

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					Peer evaluation of participation on multidisciplinary team	SHM 485	Spring annually	80% positive response from team members
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
5. Graduates will be able to identify and solve applied science problems.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Rubric-based evaluation of student application of science knowledge to specific safety and health challenges.	SHM 373/7/9	Winter, Spring, Winter annually	80% correct application
					Rubric-based evaluation of student analysis of science knowledge to specific safety and health challenges.	SHM 471/2/7	Fall, Winter, Fall annually	80% correct analysis
					Rubric-based evaluation of student synthesis of knowledge into complex problem-solving situations.	SHM 485	Spring annually	80% correct synthesis
					Mentor evaluation of problem-solving work.	SHM 490	Summer annually	80% positive mentor response of student internship
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response

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6. Graduates will be able to consider professional and ethical responsibility and apply to their work.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Examination of fundamental ethical knowledge	SHM 351/2/3	F/W, W/S, S annually	80% correct response on examination question(s)
					Rubric-based evaluation of project and examination of student application of professional and ethical responsibility knowledge to program development	SHM 371/3/5/7/9	F, W, S, S, W annually	80% correct application
					Rubric-based evaluation of project and examination of student application of professional and ethical responsibility knowledge to auditing	SHM 471/2/4/5/7	F, W, W, S, S annually	80% correct application
					Examination of application of ethical knowledge to scenarios	SHM 485	Spring annually	80% correct response on examination question(s)
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response

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7. Graduates will be able to communicate effectively.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Examination of knowledge and rubric-based evaluation of written communication	SHM 351/2/3	Fall, Winter, Spring annually	80% correct response on examination question(s) 80% correct application to project
					Rubric-based evaluation of written program	SHM 371/3/5/7/9	F, W, S, S, W annually	80% correct application
					Rubric-based evaluation of proposal and report project skills	SHM 471/2/4/5/7	F, W, W, S, S annually	80% correct application
					Examination of knowledge and rubric-based evaluation of presentation skills	SHM 351/2/3	Fall, Winter, Spring annually	80% correct response on examination question(s) 80% correct application to project
					Rubric-based evaluation of program presentation	SHM 371/3/5/7/9	F, W, S, S, W annually	80% correct application

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					Rubric-based evaluation of proposal and report project presentation skills and client interaction skills	SHM 471/2/4/5/7	F, W, W, S, S annually	80% correct application
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
8. Graduates will have the broad education necessary to understand the impact of solutions in a global and societal context.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Rubric-based evaluation of student contextualization of project to client culture and needs	SHM 471/2/4/5/7	F, W, W, S, S annually	Completion of project to client specifications
					Rubric-based evaluation of written summary of professional seminar of industry presenters	SHM 481	Winter annually	80% correct application
					Rubric-based evaluation of application of knowledge to multidisciplinary project	SHM 485	Spring annually	80% correct application
					Mentor evaluation of student contextualization of knowledge to internship setting	SHM 490	Summer annually	80% positive mentor response of student internship
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response

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9. Graduates will recognize the need for and an ability to engage in life-long learning.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Rubric-based evaluation of written summary of professional seminar of industry presenters	SHM 481	Winter annually	80% correct application
					Rubric-based evaluation of self-directed learning within the context of multidisciplinary teamwork	SHM 485	Spring annually	80% correct application
					Mentor evaluation of student engagement of life-long learning	SHM 490	Summer annually	80% positive mentor response
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
10. Graduates will be able to apply their knowledge of contemporary issues of safety and health management to their work.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Rubric-based evaluation of written summary of professional seminar of industry presenters	SHM 481	Winter annually	80% correct application
					Rubric-based evaluation of application of contemporary safety and health management issues within the context of multidisciplinary teamwork	SHM 485	Spring annually	80% correct application
					Mentor evaluation of student application of knowledge	SHM 490	Summer annually	80% positive mentor response

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					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
11. Graduates will be able to use the techniques, skills, and modern scientific and technical tools necessary for professional practice.	2, 3	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 6	Examination of knowledge of techniques, skills, and tools	SHM 321/3/5/7 SHM 351/2/3	W, F/S, S, F annually F/W, W/S, S annually	80% correct response on examination question(s)
					Rubric-based evaluation of application and use of techniques, skills, and tools	SHM 471/2/4/5/7	F, W, W, S, S annually	80% correct application to project
					Mentor evaluation of student use of techniques, skills, and tools	SHM 490	Summer annually	80% positive mentor response
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
12. Graduates will be able to anticipate, recognize, and evaluate hazardous conditions and practices affecting people, property,	2, 3, 9	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 5, 6	Examination of student knowledge of hazardous conditions and potential outcomes of exposure	SHM 321/3/5/7	W, F/S, S, F annually	80% correct response on examination question(s) 80% correct application to project

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and the environment.					Examination of knowledge of incident investigation and rubric-based evaluation of those skills and application of hazard recognition	SHM 351	Fall/Winter	80% correct response on examination question(s) 80% correct application to project
					Rubric-based evaluation of application skills to pre-incident evaluation and anticipation of potential outcomes	SHM 352	Winter/Spring	80% correct application
					Rubric-based evaluation of anticipation of effects of hazardous conditions and response measures	SHM 371/3/5/7/9	F, W, S, S, W annually	80% correct application
					Rubric-based evaluation of student skills in hazard evaluation	SHM 471/2/4/5/7	F, W, W, S, S annually	80% correct application
					Mentor evaluation of student use of hazard management knowledge	SHM 490	Summer annually	80% positive mentor response of student internship
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response

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13. Graduates will be able to develop and evaluate appropriate strategies designed to mitigate risk.	2, 3, 9	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 5, 6	Examination of student knowledge regarding risk management principles and practices	All students in SHM 353	Spring annually	80% correct response on examination question(s)
					Rubric-based evaluation of application of risk mitigation to project to develop written program	SHM 371/3/5/7/9	F, W, S, S, W annually	80% correct application to project
					Rubric-based evaluation of application of risk analysis and modeling to client project	SHM 471/2/4/5/7	F, W, W, S, S annually	80% correct application to project
					Rubric-based evaluation of application of risk management in a multidisciplinary project	SHM 485	Spring annually	80% correct application to project
					Mentor evaluation of student use of risk management practices during internship	SHM 490	Summer annually	80% positive mentor response of student internship
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response
14. Graduates will be able to apply principles of safety	2, 3, 9	1, 2, 3, 5, 7, 9, 10	1, 2, 4	1, 2, 4, 5, 6	Rubric-based evaluation of client-driven, non-classroom based project to develop written program	SHM 371/3/5/7/9	F, W, S, S, W annually	Project completed to client specifications

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and health in a non-academic setting through an intern, cooperative, or supervised experience.					Rubric-based evaluation of client-driven, non-classroom based project to design, propose, conduct, and report	SHM 471/2/4/5/7	F, W, W, S, S annually	Project completed to client specifications
					Mentor evaluation of overall student internship performance	SHM 490	Summer annually	80% positive mentor response of student internship
					Student course closeout reflective survey of knowledge, skills, and value improvement	All students in all courses	Quarterly	75% positive response