

# SAFM 552 - Safety and Health Training – Syllabus

Fall 2014 – Mike Klishis – CRN 83577

Tuesday & Thursday, 2-3:15 – 105 MRB

Office: Room 333-C Mineral Resources Bldg., WVU.

**Office Hours: TR – 11-12, 3:30-4:15, W – 2-4:15 PM, other hours by appointment**

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## General Course Information

The Mission of the Safety Management program is to develop Leaders of an Organization able to protect, conserve, and improve the resources - people, property, and efficacy - of the organization.

Training is essential for an effective an efficient safety, health, and environmental [SHE] effort. Therefore, managers who have SHE responsibilities have to be knowledgeable of the various training approaches and techniques to improve the safe behavior of the organization's work force and how these techniques can be used to improve the organization's overall safety, health, and/or environmental performance. They must be able to identify SHE performance discrepancies and decide if those discrepancies are the result of inadequate knowledge and/or skills that can be improved by training. When safety and health training programs are needed to improve the workers' performance, managers must be able to select and or develop appropriate training programs, insure that those programs are conducted effectively and according to budget, and determine if those programs are effective in improving the workers behavior and the organizations functioning

Course Goal: To assure that safety, health and environmental related human performance discrepancies and training needs are identified and appropriate techniques are employed to improve the safety, health and environmental knowledge, skills, and performance of the work force.

## Textbook & Course Information

### *The New Mager Six Pack:*

Mager, R.F. #1) *Making Instruction Work*; #2) *Preparing Instructional Objectives*; #3) *Measuring Instructional Results*; #4) *Goal Analysis*; and #5) *How to Turn Learners On....* Atlanta: Center for Effective Performance.

Mager, R.F., and Pipe, P. #6) *Analyzing Performance Problems*, Atlanta: Center for Effective Performance

**NOTE:** *Making Instruction Work* will be the overview book for this course; the other Mager books describe specific chapters [areas or topics] in detail.

Klishis – e-reserves, WVU libraries website - <http://www.libraries.wvu.edu/>

Klishis – Homepage – IMSE Faculty page

**Recommended:** American National Standard, ANSI/ASSE Z490.1-2009, Criteria for Accepted Practices in Safety, Health, and Environmental Training, Available from ASSE (847) 699-2929 or [www.asse.org](http://www.asse.org)

**NOTE:** Students taking this course must know basic *MS PowerPoint*<sup>®</sup>

## Grading

Grading is based on a point system. Points are earned from a variety of activities including tests, a project paper, presentation, class participation, and other assignments. **NOTE: All assignments are expected to be turned in on time. Late assignments will be discounted a minimum of 10% the first day, and additional discounts thereafter. There are NO special extra credit activities.** However, bonus points MAY be awarded for exemplary performance on tests and projects.

<u>Graded Activity</u>	<u>Percent</u>	<u>Points</u>
Class Participation/Assignments/Feedback forms	<b>15.0</b>	<b>150</b>
Training Regulations List	<b>2.5</b>	<b>25</b>
Brief [Four-minute] Training Session	<b>2.5</b>	<b>25</b>
Group Mini-Training Sessions	<b>15</b>	<b>150</b>
Overall (Group) Effort	(5)	(50)
Individual Effort	(10)	(100)
Safety/Health Training Manual	<b>40.0</b>	<b>400</b>
'Quality' Overheads for Training Manual	(5)	(50)
Safety/Health Training Manual	(35)	(350)
Midterm Exam	<b>10.0</b>	<b>100</b>
<u>Final Exam</u>	<u><b>15.0</b></u>	<u><b>150</b></u>
<b>Total</b>	<b>100.0</b>	<b>1000</b>

## Grading scale

<u>Points</u>	<u>Grade</u>
900 and above	A
800 - 899	B
700 -799	C

[Note: any grade below a "C" is a failing grade for graduate students]

## Reminder

If you are going to be absent because of a planned activity – job requirements, job or internship interview, safety conference attendance, special safety training, etc. – let me know in advance. You are expected to turn in any assignments that are due at that class on time. You may drop-off material ahead of time, e-mail assignments, or send it to class with a classmate.

If you are ill, or an emergency arises that prevents you from getting to class, e-mail me before class, or, if that isn't possible, as soon as practical. Assignments you missed are then due within 24 hours without penalty

**NOTE: If you miss a quiz or in-class activity you will not be able to make it up.**

## SAFM 552 - Schedule – Fall 2014

<u>Month</u>	<u>Day</u>	<u>Wk #</u>	<u>Topic(s) and Assignment for this class (with Text chapters, supplemental info)</u>
Aug	19	1	<b>Introduction &amp; Course Overview;</b> <b>Safety, Productivity, Training, Performance, and Management</b> <b>Pretest</b> **Discuss 3-min. training session, projects; mini-sessions, routine vs. non-routine task training
Aug	22		<b>Last Day to Add a Course or Drop a Course without a “W”</b>
Aug	26	2	<b>Observations, Data Collection, Analysis, and Communications</b> <b>Training Needs Identification – 1</b> <b>Broadwell’s Seven Steps</b> <b>Needs Assessment</b> <b>Analyzing Performance Problems [Intro- Klishis at al.]</b> ** <i>Form Groups &amp; Select Mini-training Topics; Discuss Training Manual Topics.</i> <u>Readings/Assignment:</u> <i>Making Instruction Work</i> - Chs. 1-4; Appendix – Decision Making Flowchart-Klishis et al.; Training Manual - Find company/organization
Sep	1 <sup>ST</sup>	-	<b>Labor Day – No Classes</b>
Sep	2	3	<b>Training Needs Identification: Analyzing Performance Problems</b> - Mager & Pipe ** <i>Select Training Manual Topic/Company that you will be working on – E-mal info</i> Prepare 3-min. training session with <b>at least two</b> PowerPoint® overheads, printout overhead(s). ** <i>4-min training sessions begin</i> <u>Readings/Assignment:</u> <i>Analyzing Performance Problems</i> – all, <i>Making Instruction Work</i> - Chs. 1-6
Sep	9	4	<b>Training Needs Identification: Analyzing Performance Problems (Cont.)</b> <b>Performance Based Objectives (PBOs) - Preparing Instructional Objectives</b> <i>Research with search strategy (Grp. Presentation; Indiv. Ppr)</i> ** <i>4-min training sessions finished</i>  <u>Readings/Assignment:</u> <i>Preparing Instructional Objectives</i> - all; Appendix 2; CD ROM searches for Manual and for group paper; write brief (1-2 page) Overview of your company and a 1-2 page Needs Assessment: include training needs, CFRs, etc. (Submit <b>two</b> copies)
Sep	16	5	<b>Developing Performance Based Objectives (Cont.)</b> **Hand in 1 <sup>st</sup> Draft of PBOs ** <i>Training Regulations List Due</i> ** <i>Hand in Overview &amp; Needs assessment (indiv. ppr.); hand in printout of CD ROM</i> <u>Readings/Assignment:</u> Develop 6 PBOs for your individual manual (Submit <b>two</b> copies)
Sep	23	6	<b>Developing Performance Based Objectives (Cont.); Goal Analysis</b> ** <i>Discuss/Review revised draft objectives-give comments to student and Mike</i> <u>Readings/Assignment:</u> <i>Making Instruction Work</i> – Chs. 5, 6; <i>Goal Analysis</i> ; Revise the PBOs for your manual (Submit <b>two</b> copies)
Sep Oct	30 2	7	<b>Developing Performance Based Objectives (Cont.); Goal Analysis</b> <b>Criterion Referenced Testing - Measuring Instructional Results</b> ** <i>Discuss/Review revised draft objectives-give comments to student and Mike</i>

Readings/Assignment: *Making Instruction Work* – Chs. 5, 6; *Goal Analysis*; Revise the PBOs for your manual (Submit **two** copies) *Measuring Instructional Results*; Revise PBOs as necessary (Submit **two** copies);

<u>Month</u>	<u>Day</u>	<u>Wk #</u>	<u>Topic(s) and Assignment for this class (with Text chapters, supplemental info)</u>
Oct	2	8	<p><b>Criterion Referenced Testing - Measuring Instructional Results</b>            ** Discuss/Review revised objectives-give comments to student and Mike            ** Hand in topic outline for Group Paper</p> <p><u>Readings/Assignment:</u> <i>Measuring Instructional Results</i>; Revise PBOs as necessary (Submit <b>two</b> copies); Familiarize yourself with Microsoft PowerPoint® [think about questions you might ask]</p>
Oct	7	8	<p><b>Midterm Examination</b>  <b>Lesson Plans</b>  <u>Assignment:</u> Lesson plans; Study for midterm</p>
Oct	13-14	-	<b>Midterm Break – No Classes</b>
Oct	16-21	9	<p><b>Models of Instruction [M.I.T.]</b>  <b>Developing Instructional Material</b>  <u>Readings/Assignment:</u> <i>How to Turn Learners On</i>; Review Appendices 3 and 4 - Experimental design &amp; Threats to validity; Design a Lesson Plan (submit <b>two</b> copies); Develop CRT items corresponding to the revised objectives for your training manual. Plan (submit <b>two</b> copies); NOTE tests should include actual, simulation, and written test performance evaluations.</p>
Oct	23-28	10	<p><b>Conducting Training: Audio-Visuals</b>            **Discuss/review CRT drafts</p> <p><u>Readings/Assignment:</u> Review Experimental designs &amp; Threats to validity; Develop CRT items corresponding to the revised objectives for your training manual (submit <b>two</b> copies); NOTE tests should include actual, simulation, and substitution test. Design a process evaluation for your manual (submit <b>two</b> copies); Meet with group to finish CBT program and prepare for Presentation - see App. 7</p>
Oct	30	11	<p><b>Communication</b>            ** Hand in topic outline &amp; objectives for Group Paper            **PowerPoint Presentation for ALL Mini-Training Sessions Due, include objectives</p>
Nov	4	-	<b>Election Day – No classes</b>
Nov	6-11	12	<p><b>Evaluating Training - Process Evaluation / Impact Evaluation (6<sup>th</sup>)</b>  <b>Experimental design; Threats to validity</b>            **PowerPoint Presentation for ALL Mini-Training Due            **Mini-Training Session # 1 (11<sup>th</sup>)  <b>Impact Evaluation [Introduction]</b>            ** Discuss/Review Lesson Plan drafts - give comments to student and Mike            ** Discuss/Review CRTs drafts - give comments to student and Mike            ** Review and comment on Process evaluation draft            ** Review and comment on Impact evaluation draft</p> <p><u>Readings/Assignment:</u> Design an “Impact Evaluation” for your manual (Submit <b>two</b> copies)</p>
Nov	13-18	13	<p><b>Evaluating Training – Impact Evaluation (Cont.)</b>  <b>Training Cost Analysis</b>            ** Review and comment on revised Impact evaluation</p>

**\*\*Mini-Training Session # 2 (18<sup>th</sup>)**

Readings/Assignment: Revise impact evaluation as necessary (Submit **two** copies);

<u>Month</u>	<u>Day</u>	<u>Wk #</u>	<u>Topic(s) and Assignment for this class (with Text chapters, supplemental info)</u>
Nov	20	14	Training Costs and Benefits (cont.)
Dec	2		<b>**Quality Overheads Due</b> <b>**Review Training costs</b> <u>Readings/Assignment:</u> TBA; see App. 5 & 6, review checklists, Describe training costs for your training (Submit <b>two</b> copies)

**Friday, November 21<sup>st</sup> - SAFM Comprehensive Examinations - 243 MRB - 8 AM to 4:45 PM**

Nov	22-30	-	Thanksgiving Break (No Classes)
Dec	4-9	15	Training Costs Analysis – Cost benefit exercise [Exercise - River Transportation Division] <u>Readings/Assignment</u> Submit Cost Benefit Analysis (4 <sup>th</sup> ) Finish Training Manual

**Friday, December 5<sup>th</sup> – Training Manual Due NLT 4 PM**

**MONDAY, DECEMBER 8<sup>TH</sup> – LAST DAY TO WITHDRAW FROM ALL CLASSES AT WVU**

**THURSDAY, DECEMBER 11<sup>TH</sup> FINAL EXAMINATION – 243 MRB (Tentative) – 8 AM**

Assignment: Study for Final  
**Comprehensive, emphasis on 2<sup>nd</sup> half, including Mini-Training sessions**

Note: Frequent quizzes are to be expected, additional readings and objectives may be assigned, and outside presenters may be scheduled.

**Warning:** This course requires lots of work in order to complete the major projects: 1) 3 min. Training session, 2) Mini-Training Session, and 3) Safety/Health Training Manual. If you put things off you will probably be late. The **MINIMUM PENALTY IS 10 PERCENT A DAY.**

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in class, please advise me, and make appropriate arrangements with Disability Services (293-6700).

## **Course Objectives Assessment Methods**

Students will be able to demonstrate their skills needed to develop appropriate safety and health training procedures including: assessing needs, behavioral observations, writing instructional objectives, using evaluation techniques, and analyzing costs and benefits. Applications of these skills will be demonstrated in classroom activities, quizzes, tests, and projects

1. Demonstrate knowledge of established techniques and approaches to safety, health, and environmental [SHE] training that lead to improved safety, health and environmental performance.  
**Assessment: quizzes, exams, projects**
2. Describe the steps in developing a SHE training program.  
**Assessment: quizzes, midterm exam, manual**
3. Conduct a SHE-oriented needs assessment.  
**Assessment: quizzes, midterm exam, manual**

4. Determine if SHE needs are correctable by training or if they should be corrected by administrative, engineering, or other changes (Performance Analysis).  
**Assessment: exercises, quizzes, midterm exam, manual**
5. Insure the development of effective performance-based training objectives (PBOs).  
**Assessment: quizzes, midterm exam, manual**
6. Insure the development of appropriate criterion referenced tests (CRTs).  
**Assessment: quizzes, exam, manual**
7. Demonstrate skills necessary to develop and conduct effective SHE training sessions, seminars or toolbox talks.  
**Assessment: mini-training**
8. Demonstrate the ability to evaluate others' training, development and presentation efforts.  
**Assessment: class critiques**
9. Plan an evaluation procedure that measures the effectiveness of the training program.  
**Assessment: final exam, manual**
10. Plan and perform a cost benefit analysis of training.  
**Assessment: final exam, manual**

The purpose of a graduate level course is more than simply imparting knowledge. Developing practitioners in the field of safety with the ability to obtain and apply management and safety information and techniques is the main goal of this graduate program. In order to do this, students must use research skills to identify resources that may be used on the job and be familiar with the latest technologies including the Internet and CD ROMs as well as applications such as word processing and presentation software.

## **Student Activities/Projects**

**4 -Minute Training Session:** Each student will prepare and conduct a brief training session [3-4 minute maximum] employing at least two PowerPoint® "slides." This brief training session will serve as a 'benchmark' to measure training skill improvement over the semester. Brief training sessions will begin on **September 2<sup>nd</sup>** [25pts.]

**[SEE GRADING FORM]**

**List of Federally Mandated Training:** Students will search the following CFRs – 29, 30, 40 and 49 - and develop a comprehensive list of mandated training with a brief description of each training requirement. Due on **September 16<sup>th</sup>** [25 points]

**Group “Mini-Training” Session:** Student’s will prepare and conduct a mini-training session [45-60 minutes maximum] employing PowerPoint "slides," PBOs, Student activities and other training techniques the group may deem appropriate. Mini-Training sessions will begin on **November 11<sup>th</sup>**. [150 pts.] Each group will develop and address PBO’s and CRTs (the CRTs will be apart of the final exam. Note: The PowerPoint® presentation for **ALL presentations are due on November 6<sup>th</sup>**.

### **– Possible Mini-training Session topics –**

- |   |  |
|---|--|
| Using simulators (and/or virtual reality) to improve training | The Work Crew Performance Model (OJT)                            |
| Sexual harassment training for supervisors and trainers       | Training Supervisors about Americans with Disabilities Act (ADA) |
| Training needs and procedures for Older Workers               | How to make company specific videos                              |

**[SEE GRADING FORM]**

**Overhead Development:** Each student will develop quality overhead “transparencies” for use with their

training program. NOTE: **Overheads differ from PowerPoint®** presentations in that they are 'less busy', with fewer graphics and have a clear [white background. Color, computer generated overhead 'transparencies' [paper 'transparencies', including handouts [**miniatures**] are acceptable] are Drafts due on **December 2<sup>nd</sup>**. [50 pts.]

**[SEE GRADING FORM]**

**Safety Training Manual:** Students will work with the WV Department of Corrections to review and develop/revise their training manual. Each student's segment of the training program will be planned to last AT LEAST eight hours. The manual will include performance (learning) objectives, lesson plans, pre- and post-tests, suggested lecture with notes to the instructor [for one hour's worth of training], and methods for evaluating the effectiveness of this approach.. The manual will be due on **December 5<sup>th</sup> NLT 4 PM.** [350 pts.]

**[SEE GRADING FORM]**

The "manual" will consist of two parts: An administrative manual, an instructor's manual and a trainee's manual. Resulting material will include the following:

**General:**

Cover with the developer's name & training topic  
Completed copy of Grade sheet/Checklist  
Table of contents (topic outline with page numbers)

CD ROM/Internet search information  
Copies of original material  
**Diskette with a copy of ALL material**

**ADMINISTRATIVE MANUAL [THIS PART MUST BE REFERENCED]**

**General overview/Scenario:** Describe a situation/organization where you will train workers, supervisors, managers, safety professionals and/or safety trainers [group picks the level] on one of the instructor approved topics. You can do this as company trainer or as a training consultant. [At least 1 page]

**Needs assessment:** What is the importance / significance / impact of this topic/subject on industry; how does it effect safety and or safety training; are there laws and/or regulations relating to this topic - Federal codes (CFR, Federal Register), state codes, contractual agreements, etc.; what sort of data relates to the significance of this topic. [At least 1 page]

**Performance Based Training Objectives (a minimum of 6):** include and *identify the performance statement, conditions, and standards*, with at least two objectives from the cognitive domain and one from the psychomotor domain. Be sure that at least **two** cognitive objectives are above the knowledge level.

**Process [administrative] evaluation:** forms / procedures / appropriate time to determine if training program is being followed. (Design a form that will be used by the evaluator – **NOT** the students)

**Impact evaluation:** Has the training been effective in terms of liking, learning AND worker behavior and/or results [Use **three** levels of evaluation discussed in class, the fourth – a change in knowledge will be demonstrated in your Pre-Post-tests]. Design an observation check list for your behavioral observations and show a graph of your organization change evaluation procedure.

**Cost benefit analysis:** what is the cost of training, what is the gain [monetarily] (Calculate the costs of training, list anticipated cost benefits specify costs for a failure to train)?

**References** - at least five in APA style format [on a separate page]

**INSTRUCTOR'S MANUAL**

**Lesson Plan:** include training times for specific objectives, sequencing of objectives, lectures, discussion and activities, appropriate audience, prerequisites, necessary A-V equipment, required and recommended or suggested videos, training room layout, etc.

**Lecture information [two-column format** - 1) notes to the instructor and 2) suggested lecture] Do **NOT** submit overheads/PowerPoint slides with notes at the bottom!

Detailed for at least two hours of instruction

Identify visuals to be used in the training

**Overheads** and handouts

**Criterion referenced testing:** Pretests, post-tests – CRTs mapped to specific instructional objectives [PBOs] -

with answers in three column format. [NOTE: tests will probably include actual, simulation and written test performance evaluations.]

**Resources** identified - related supplemental materials - articles, books, videos, computer programs, etc. that would be of assistance to the trainer.

The final product will be professional in appearance (laser printer quality, pages numbered) and bound. Specific details may be found in the training manual description [below] and the checklist/grading form.

**Reminder:** A diskette or CD with the training manual files will be submitted. Training manuals will **NOT** be returned. If you desire a copy, please make a duplicate.

## PROFESSIONAL SKILL DEVELOPMENT

**Computer usage:** Students will work with computers at home and/or in the College or University computer labs in order to demonstrate some degree of competency with the PC. Skill areas that it is assumed that you have or will learn on your own include: CD ROMs and Internet searches, word processing, e-mail etc.). Students are expected to become proficient with presentation software. Training manuals will be produced on a computer and printed on a laser printer.

**Presentation skills:** Students are expected to demonstrate their ability to make a professional presentation using *MS PowerPoint*<sup>®</sup> 'slides' and organizing material for training sessions.

**Writing Skills:** Written assignments are expected to be well defined and coherent. The instructor has often heard from employers or recruiters to stress that good writing skills are essential to their organization. With this in mind, students assignments will be reviewed for grammar, spelling and coherent content

**Management/Evaluation skills:** Students are expected to demonstrate their ability to evaluate the quality of training material and the performance of trainer by critiquing the work of fellow students, giving feedback that will help them improve, and evaluating their 'training performance.'

## CHEATING

"**Cheating:** If you cheat (copy someone else's answers on a test, knowingly allow someone to copy your test, use someone else's term paper, etc.), then you can receive a failing grade in the class and could be subject to further disciplinary measures". (Mountie, 1998, p. 15)

"**Plagiarize ... vb.. to steal and pass off** (the ideas or words of another) **as ones own: use** (a created production) **without crediting the source** ~ *vi* : **to commit literary theft : present as new and original an idea or product derived from an existing source"** (Webster's New Collegiate Dictionary, 1979, p. 870)

In order to protect yourself from being accused of cheating you must reference (cite) any thought, idea, or fact that is not your original thinking. This means noting in the body of your paper (project report, etc.) the source of the fact or idea, and, if you are quoting a source directly, including the page number where the quote may be found. In this course we will use the **Publication Manual of the American Psychological Association, 5<sup>th</sup> edition**, as a guide for citing works (APA, 2001).

To further protect yourself (and your grade), you must be sure that any work you hand in contains a substantial amount of your own thinking. It is not acceptable to paraphrase another's work (even if you refer to that work and give the author credit) and submit it as your work. Originality on your part is required to pass this course.

For the official WVU code of ethics go to – <http://studentlife.wvu.edu/studentconductcode.html>



## **SOCIAL JUSTICE**

West Virginia University is committed to social justice. I concur with that commitment and expect to maintain a positive learning environment based upon open communication, mutual respect, and non-discrimination. Our University does not discriminate on the basis of race, sex, age, disability, veteran status, religion, sexual orientation, color or national origin. Any suggestions as to further such positive and open environment in this class will be appreciated and given serious consideration.

If you are a person with a disability and anticipate needing any type of accommodation in order to participate in class, please advise me and make appropriate arrangements with Disability Services (293-6700) **NLT the 3<sup>rd</sup> week of class.**

For the WVU policy on Social Justice go to – <http://socialjustice.wvu.edu/>

## **DAYS OF SPECIAL CONCERN**

The University's calendar is designed to avoid days of religious concern for Christians (Protestant, Roman Catholic). However, many WVU students are of other religious faiths. In the WVU calendar there are dates designated as Days of Special Concern for students of the Jewish, Moslem or other faiths. If you are a student of another faith, and celebrate that faith on special days, please let the instructor know in **the first three weeks of the semester** in order to permit flexibility in the schedule. The following are Days of Special Concern this semester:

September 23<sup>rd</sup> – Rosh Hashanah  
October 3<sup>rd</sup> – Yom Kippur  
November 11<sup>th</sup> – Veteran's Day  
November 12<sup>th</sup> – Birth of Baha'u'llah

## **“EXTRA” DAYS OFF**

October 13-14<sup>th</sup> – Fall Break  
November 4<sup>th</sup> – Election Day

## **ELECTRONIC RESERVE STUDENT ACCESS INFORMATION**

To access E-Reserve materials go to <https://reserves.lib.wvu.edu/publicLogin.php>

To get into eReserves you go to the eReserve page and enter your user Name and Password. Your username is the same as your Master ID username . Your password is the same password that you use to log into the WVU Libraries computers. It is the two digit day of your birth and the last four digits of your WVUID [You can look up your WVU ID at <https://centralid.wvu.edu/wvuid/>]

Then you should see any courses in which you are enrolled that have e-reserves associated with them. Simply click on the class you want and you are there.

If you have problems – please contact the e-reserves librarian: [ereserves@mail.wvu.edu](mailto:ereserves@mail.wvu.edu)