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Info. 4/20/10

Undergraduate Distance Education Review Form

Required for all courses taught by distance education for more than one-third of teaching contact hours.

Existing and Special Topics Course

Course: HPED 251 Foundations of Safety and Emergency Health Care

Instructor(s) of Record: Dr. Louis J. Pesci

Phone: 724-357-3979

Email: lpesci@iup.edu

Step One: Proposer

A. Provide a brief narrative rationale for each of the items, A1 – A5.

1. How is/are the instructor(s) qualified in the distance education delivery method as well as the discipline?

Dr. Louis Pesci has taught the HPED 251 Foundations of Safety and Emergency Health Care content at IUP since 2000. He has also taught the core of courses, HPED 252 Introduction to the Driving Task, HPED 353 Driver Education Program Management and HPED 354 Application of Driver Education Instructional Modes since coming to IUP in 2000. The listed courses represent the certification requirements for safety/driver education teacher preparation program offered at IUP.

Prior to attending a scheduled IUP Moodle Workshop, Dr. Pesci developed an on-line driver education curriculum, Driver Task Analysis, for the American Driver and Traffic Safety Education Association (ADTSEA) using the Moodle teaching platform. In the Fall of 2008, Dr. Pesci presented the ADTSEA Driver Task Analysis on-line Course in Charlotte, NC to various university-level-driver educators and public school educators. In the summer and fall semesters of 2009, Dr. Pesci incorporated the IUP Moodle teaching platform into course content of HPED 251, HPED 252, HPED 353 and HPED 354.

2. How will each objective in the course be met using distance education technologies?

HPED 251 Foundations of Safety and Emergency Health Care will be conducted as a hybrid on-line course. Specifically, students will be required to meet at the IUP Main Campus for the first day of class to receive course information. Students will also be required to meet on the IUP Main Campus during the last days of the course to fulfill hands-on training.

Objective 1 – Identify the social and economic consequences associated with accidents.

How objective 1 will be met – The readings cover a broad range of topics and theories' that include the basic definitions used in safety education and how they relate to economic consequences of accidents to society. There will be assigned materials and readings that relate to the importance of studying accidents/fatalities. Related websites and web based readings on safety education issues will be introduced to enhance student's interests and motivation.

Objective 2 – Recognize and describe the responsibility of one's local, state, and national government for accident prevention and control.

How objective 2 will be met – Required readings will be assigned from the textbook on how state and local agencies work together to address the injury problem. Students will be required

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to research how federal, nonprofit, national professional, state and local agencies coordinate with each other to collect and record injuries/fatalities.

**Objective 3 - Describe the epidemiological approach for addressing the accident problem.**

How objective 3 will be met - Required readings will be assigned on the epidemiology injury model and Haddon's Model. Students will be required to analyze the various components of the Haddon Model and respond to questions posted on discussion boards. Phone conference calls will be utilized to help explain a variety of epidemiological approaches. Students will be required to read case studies on traffic collisions and respond using either model.

**Objective 4 – Identify causes of accidents and recommend preventive strategies.**

How objective 4 will be met - Students will be required to examine case studies that resulted in unintentional injuries/fatalities. The instructor will post a variety of examples of how the epidemiology injury model is used to analyze and prevent injuries. Additional readings will be posted that will help explain other models. Web based videos will be incorporated with the readings to help support the material.

**Objective 5 – Identify and appraise the factors that individuals should consider when assessing risks in their daily lives.**

How objective 5 will be met – Students will be required to download a basic priority rating system study guide posted on IUP Moodle to measure risk. Students will be required to read specific textbook chapters which will guide them in the use of the priority rating system. Chat rooms, discussion boards and labels will be used to post supplemental materials.

**Objective 6 – Identify the primary causes of motor-vehicle accidents and the select countermeasures for either prevention or mitigation of the problem.**

How objective 6 will be met - A variety of state and federal websites will be posted to introduce the primary causes of motor vehicle collisions. Students will use the content from objectives 3 and 4 to analyze traffic collision articles. Articles describing traffic collisions within the highway transportation systems will be posted and to help introduce prevention/mitigation methods. Students will be required to submit articles and critique for discussion.

**Objective 7 – Describe the responsibilities of the first responder and the liability risks assumed when rendering help.**

How objective 7 will be met – Students will be required to read relevant information in the American Red Cross text regarding legal issues and the first responder as well as engage in discussion about these issue. Additionally, items on the ARC exam will cover this material

**Objective 8 – Demonstrate practical and cognitive skills for American Redo Cross Basic Life Support**

How objective 8 will be met – Students will perform the following skills on mannequins or classmates in the presence of the instructor: adult conscious choking care, adult unconscious choking care, adult CPR, adult AED, bleeding control, and splinting (rigid, sling/binder, anatomical, soft).

**Objective 9 – Demonstrate the ability to teach the American Red Cross Standard First Aid Course**

and CPR

How objective 9 will be met - Students will pass the ARC examination with an 80% or better as well as demonstrate proficiency in all practical assessments.

3. How will instructor-student and student-student, if applicable, interaction take place?  
Instructor-student and student-student interaction will be available through the on-line software in the form of chat rooms, discussion boards, phone conference calls, assignments, and e-mail. Assignments and self-test will give the students an opportunity to provide and demonstrate their knowledge of content. Students will be able to discuss assignments and test result results with the instructor as needed throughout the duration of the course.
4. How will student achievement be evaluated?  
Students will be required in each unit to submit the listed assignment electronically. Students will be required to submit and present a safety research project based off a chosen safety topic. Students will submit references and a review of the literature for verification of data collection. Students will be required to submit a research paper on their chosen topic and do a 20 minute presentation at the end of the course. A final exam will be administered on-line during final exam week as scheduled by the university.
5. How will academic honesty for tests and assignments be addressed?  
Evaluation methods will consist of exams, discussion boards and emails to avoid academic dishonesty. The Moodle software provides several functions to help the instructor prevent academic dishonesty. All assignments submitted electronically are controlled by the instructors through the use of date and time specific functions provided by Moodle. Exams will be timed and a random selection feature can be used to select questions from a question bank. This ensures that students are getting different questions randomly on a specific exam.
- B. Submit to the department or its curriculum committee the responses to items A1-A5, the current official syllabus of record, along with the instructor-developed online version of the syllabus, and the sample lesson. This lesson should clearly demonstrate how the distance education instructional format adequately assists students to meet a course objective(s) using online or distance technology. It should relate to one concrete topic area indicated on the syllabus.

**Step Two: Departmental/Dean Approval**

**Recommendation:**      Positive (the objectives of this course can be met via distance education)

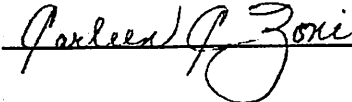
Negative



3/22/2010

Signature of Department Designee

Date

**Endorsed:** 

3-22-2010


Date

*Forward form and supporting materials to Liberal Studies Office for consideration by the University-wide Undergraduate Curriculum Committee. Dual-level courses also require review by the University-wide Graduate Committee for graduate-level sections.*

**Step Three: University-wide Undergraduate Curriculum Committee Approval**

**Recommendation:**      Positive (the objectives of this course can be met via distance education)

Negative



4/13/10

Signature of Committee Co-Chair

Date

*Forward form and supporting materials to the Provost within 30 calendar days after received by committee.*

**Step Three: Provost Approval**

**Approved as a Distance Education Course**

**Rejected as a Distance Education Course**

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\_\_\_\_\_

Signature of Provost

Date

*Forward form and supporting materials to Associate Provost.*

**Syllabus on File**

COURSE SYLLABUS  
HPED 251 Foundations of Safety and Emergency Health Care

3 credits  
3 lecture hours  
(3c-01-3sh)

CATALOG DESCRIPTION

Focuses on accident prevention, injury control and first responder's skills. Emphasizes identification of causes of accidents, recommended countermeasures and mitigation. American Red Cross Certifications are issued in: (1) standard first aid, (2) community CPR, (3) instructor of standard first aid, and (4) instructor of community CPR.

I. COURSE OBJECTIVES At the end of this course each student will:

- identify the social and economic consequences associated with accidents.
- recognize and describe the responsibility of one's local, state, and national government for accident prevention and control.
- describe the epidemiological approach for addressing the accident problem.
- identify causes of accidents and recommend preventive strategies.
- identify and appraise the factors that individuals should consider when assessing risks in their daily lives.
- identify the primary causes of motor-vehicle accidents and the select countermeasures for either prevention or mitigation of the problem.
- describe the responsibilities of the first responder and the liability risks assumed when rendering help.
- demonstrate practical and cognitive skills for American Red Cross Basic Life Support.
- demonstrate the ability to teach the American Red Cross Standard First Aid Course and CPR.

## II. COURSE CONTENT

### A. The accident problem

- Terminology
- Research: significance of
- Consequences of accidents, "social, and economic"

### B. Accident data

- National Safety Council
- Accident data logistics
- Interpretation of accident data

### C. The safety movement

- National organizations and their roles
- Legislation
- Media

### D. Risks

- Psychological considerations
- Recognizing hazards and assessing risk
- Risks taken in daily lives:
  - highway
  - home
  - work
  - public

### E. Determining accident causes

- Multiple cause concept
- Domino theory
- Epidemiological approach
- Human causation model
- Systems safety approach

### F. Strategies for prevention and mitigation of accidents

- Haddon's model
- Countermeasures: How to select
- Evaluation of countermeasures

### G. Studying the etiology and countermeasures of the primary types of accidents

- Motor-vehicle accidents
- Falls
- Drowning
- Fires
- Suffocation

- Poisoning
- Firearm accidents
- Cold and heat injuries
- Electric current injuries
- Disasters

#### H. Special Topics in Safety

- Occupational safety
- School safety
- Sports and recreational safety
- Safety instruction
- Legal aspects of accidents

#### I. Emergency Health Care

##### 1. American Red Cross Community CPR

- adult
- child
- infant

##### 2. American Red Cross Standard First Aid

- Secondary survey
- Bleeding and shock
- Bone, joint, and muscle injuries
- Head and back injuries
- Specific injuries
- Medical emergencies
- Stroke
- Diabetic emergencies
- Epileptic seizures
- Asthma

##### 3. American Red Cross health services

- Teaching CPR
- Teaching standard first aid

### III. EVALUATION METHODS

1. 30% Three objective exams addressing objectives A through F (each weighted equally at 10% : multiple choice, true/false, short answer questions)
2. 8% Annotated readings for the four major classes of accidents (16 readings)
3. 12% Mini-research paper on selected topics in the field of safety (evaluated by accurate



information, coverage of topic, and format)

4. 30% American Red Cross CPR
5. 20% on skills and 10% on standardized written examinations),
6. 10% American Red Cross Standard First Aid
7. 5% practical skills and 5% on objective tests
8. 10% Practical teaching assignment evaluated on: following the instructor's manual and accuracy of information presented

Grading Scale: 100%-90% - A, 89%-80% - B, 79%-70% - C, 69%-60% - D, 59% and below -F

#### IV. REQUIRED TEXTBOOKS

American Red Cross. Community CPR Student Workbook. The American Red Cross, 1988.

American Red Cross. CPR Instructor's Manual. The American Red Cross, 1988.

American Red Cross. Standard First Aid Instructor's Manual. The American Red Cross, 1988.

American Red Cross. Standard First Aid Workbook. The American Red Cross, 1988.

American Red Cross. Introduction to Health Services Education. The American Red Cross, 1986.

Thygerson, Alton L. Safety. Englewood Cliffs, NJ: Prentice Hall, Second Edition, 1986.

#### V. SPECIAL RESOURCE REQUIREMENTS

Expendable first-aid-supply kit, American Red Cross.

#### VI. BIBLIOGRAPHY

American Academy of Orthopedic Surgeons. (1987). Emergency care and transportation of the sick and injured. (4th ed.). Chicago.

American Public Health Association. (1986). Accident prevention. New York: McGraw-Hill.

Arnheim, D. (1989). Modern principles of athletic training. St. Louis: Times Mirror/Mosby College Publishers.

\*Baker, Susan P. (1972). Injury control. Washington, DC: Insurance Institute for Highway Safety.

Brown, A. (1987). First aid principles and procedures. -New York: MacMillan Publishers.

Caroline, N. (1988). Emergency care in the streets. Boston: Little, Brown and Company.

\*Florio, Alles, Stafford. (1979). Safety education. New York: McGraw-Hill.

\*Forbes, T.W. (1972). Human factors in highway traffic safety research. New York: Wiley-Interscience.

Grant, Murray, Bergeion. (1987). Emergency care. (4th ed.). Bowie, MD: Robert Brady Company.

\*Haddon, Suchman, Klein. (1964). Accident research. New York: Harper and Row.

Hafen, B. (1988). First aid. (4th ed.) St. Paul, MN: West Publishing Company.

Mroz, Joseph H. (1987). Safety in everyday living. Dubuque, IA: Wm. C. Brown Company.

National Safety Council. (1990 - 91). Accident facts. Chicago: National Safety Council, yearly.

\*Robert, H.J. (1971). The causes, ecology, and prevention of traffic accidents. Springfield, IL: Charles C. Thomas.

\*Strasser, Aaron, and Bohn. (1981). Fundamentals of safety education. New York: MacMillan Publishing.

Thygerson, A. (1985). The first aid book. (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.

U.S. Department of Health and Human Services. (1985). Chemical hazards. Washington, DC: US Government Printing Office.

\*Indicates historical reference.

# IUP Moodle On-line Syllabus

## HPED 251 Foundations of Safety and Emergency Health Care

3 credits

3 Lecture hours

(3c-01-3sh)

June 14, 2010 – July 2, 2010

Instructor: Louis Pesci ([lpesci@iup.edu](mailto:lpesci@iup.edu)) 724-357-3979

R&P Building, 1<sup>st</sup> floor

### Course Description

Focuses on accident prevention, injury control and first responder's skills. Emphasizes identification of causes of accidents, recommended countermeasures and mitigation. American Red Cross Certifications are issued in: (1) standard first aid, (2) community CPR, (3) instructor of standard first aid, and (4) instructor of community CPR.

### Course Objectives:

At the end of this course each student will:

1. Identify the social and economic consequences associated with accidents.
2. Recognize and describe the responsibility of one's local, state, and national government for accident prevention and control.
3. Describe the epidemiological approach for addressing the accident problem.
4. Identify causes of accidents and recommend preventive strategies.
5. Identify and appraise the factors that individuals should consider when assessing risks in their daily lives.
6. Identify the primary causes of motor-vehicle accidents and the select countermeasures for either prevention or mitigation of the problem.
7. Describe the responsibilities of the first responder and the liability risks assumed when rendering help.
8. Demonstrate practical and cognitive skills for American Red Cross Basic Life Support.
9. Demonstrate the ability to teach the American Red Cross Standard First Aid Course and CPR.

### Course Content

#### The accident problem

- Terminology
- Research: significance of
- Consequences of accidents, "social, and economic"

#### Accident data

- National Safety Council
- Accident data logistics
- Interpretation of accident data

#### The safety movement

- National organizations and their roles
- Legislation
- Media

#### Risks

- Psychological considerations
- Recognizing hazards and assessing risk
- Risks taken in daily lives:
  - highway
  - home
  - work
  - public

#### Determining accident causes

- Multiple cause concept
- Domino theory
- Epidemiological approach
- Human causation model
- Systems safety approach

#### Strategies for prevention and mitigation of accidents

- Haddon's model
- Countermeasures: How to select
- Evaluation of countermeasures

#### Studying the etiology and countermeasures of the primary types of accidents

- Motor-vehicle accidents
- Falls
- Drowning
- Fires
- Suffocation
- Poisoning
- Firearm accidents
- Cold and heat injuries
- Electric current injuries
- Disasters

#### Special Topics in Safety

- Occupational safety
- School safety
- Sports and recreational safety
- Safety instruction
- Legal aspects of accidents

#### Emergency Health Care

#### American Red Cross Community CPR

- adult
- child
- infant

#### American Red Cross Standard First Aid

- Secondary survey
- Bleeding and shock
- Bone, joint, and muscle injuries
- Head and back injuries
- Specific injuries
- Medical emergencies
- Stroke
- Diabetic emergencies
- Epileptic seizures
- Asthma

#### American Red Cross health services

- Teaching CPR
- Teaching standard first aid

#### Course Assignments and Grading

*Research Safety Project* – (100pts) Please see below for details on this assignment.

*Final Exam* – (74pts) Points are subject to change. Exams will consist of notes/handouts given during the lecture. This exam will consist of multiple-choice questions and will be scheduled on-line.

*Observational Seat Belt Study* – (20pts) this assignment will be discussed in class during the introduction. This assignment will be submitted electronically the day before the due date.

*Unit Assignments* – These assignments are found under the Course Outline under each unit. Unit assignments will be submitted electronically and used for discussion boards. Unit assignments are worth 10pts except for the Observation Seat Belt Study.

*First Aid/CPR* – This component of the course grading will be administered on the last day of class at IUP. The following components will be graded:

- Before giving care exam – 20pts
- Adult CPR Exam – 10pts
- Adult AED Exam – 10pts
- First Aid Exam – 30pts
- Skill Sheets – 60pts

*Academic Dishonesty* – The academic honesty policy shall be used in accordance with the Indiana University Honesty Policy (IUP Student Handbook – Academic Integrity Policy and Procedures, see <http://iup.edu/registrar/catalog/acapolicy>). You are expected to do your own

work for this on-line course. Cheating or plagiarism will not be tolerated and “F” grade will result for that assignment or exam.

*Grading Scale:* 100%-90% - A, 89%-80% - B, 79%-70% - C, 69%-60% - D, 59% and below -F

### Textbooks and Materials

Thygerson, A.L, Thygerson, S.M, & Thygerson, J.S., (2008). *Injury Prevention: Competencies for unintentional prevention professionals* (3rd Edition). Massachusetts: Jones and Bartlett.

American Red Cross. (2005). *First Aid – Responding to Emergencies*. Yardley, PA: Stay Well

Resuscitation mask

### IUP Moodle

Because IUP Moodle is being used for this course, notes and required readings are listed electronically. It is your responsibility to check the IUP Moodle site for upcoming events, quizzes and assignments. Assignments and quizzes are time/date specific and late submissions are not allowed. Quizzes and assignments that are not turned in during the allotted time frame are counted as zeros. IUP Moodle will be discussed during the first day of class.

## **Course Outline**

June 14, 2010 (8:00am-12:00pm) – Meeting in the R&P Building Simulation Lab

### Course Introduction - Syllabus

IUP Moodle – Detailed instructions will be given on how IUP Moodle works.

- ✚ Logging onto IUP Moodle – it is critical to access IUP Moodle ASAP – any problems with accessing the site you will need to contact IT support immediately.
- ✚ Use of videos – Firefox or Explorer
- ✚ Participants activity reports – IUP Moodle records your activity
- ✚ Chat rooms
- ✚ Attaching files for assignments
- ✚ PowerPoint’s – use of embedded links
- ✚ Discussion boards
- ✚ Teleconference calls – in some cases it will be necessary to dial in to a conference call. You will be given a phone number and pin to access the conference call.
- ✚ Different style of assignments – linking to files outside of IUP Moodle

### Unit 1 – Magnitude and Burden of the Injury Problem (Chapter 1)

- Identify the social and economic consequences associated with accidents.
- Define injury and describe the concepts of intentionality and mechanism as they relate to injury.
- Describe the biomechanics that underline how injuries occur.
- Describe the conceptual models.
- Describe the disparity in the risks of injuries and the influence a variety of factors.

June 15<sup>th</sup> Tuesday – Remember to log into IUP Moodle ASAP. If you are having problems contact IT support immediately.

- ✚ Chat room (8pm – 9pm) – During this chat room we will discuss chapter one of Injury Prevention and specifically the Fatal Facts assignment.
- ✚ Discussion board – please check the discussion board daily for feedback.

✚ Assignment: Read chapter 1 of Injury Prevention

- ✚ Assignment: Go to the following link, [http://www.osha.gov/OshDoc/toc\\_FatalFacts.html](http://www.osha.gov/OshDoc/toc_FatalFacts.html), pick seven Fatal Facts by Fact Number and answering the following questions: Is it classified as an unintentional injury or intentional. Could the accident have been prevented? What was the main cause for the incident?

### Unit 2 – Injury Data Use (Chapter 2)

- Describe how data can be used to identify disparate populations.
- Explain how data can be used to identify emerging issues in injury.
- Describe how qualitative and quantitative data can be used in collecting data an assets-and-needs assessment of a community of interest.

June – 16<sup>th</sup> Wednesday - You will need to select a topic of interest to present on for the last day of class. Please see the course Presentation Project listed in the course syllabus for topics. As topics are received they will be posted on IUP Moodle for viewing. Choose your topic early and submit your idea using email. If your topic is approved you will see your topic posted with your name on IUP Moodle.

June 17<sup>th</sup> Friday – Part one (Verification of Data) is due. Please refer to IUP Moodle for directions on this assignment.

- ✚ Chat room (8pm-9pm) – During this chat room we will discuss any concerns with your safety topics.
- ✚ Assignment: go to the following link, <http://www-fars.nhtsa.dot.gov/Main/index.aspx>, click on the “Report” tab. Click on the “crashes” tab and determine what is the most dangerous time of day/day of week to be driving for the USA year 2007 (Fatal Crashes by Time of Day of Week: USA, Year: 2007). What time of day/week has the most fatalities reported? Why.

### Unit 3 – Program Planning (Chapter 3)

- Recognize and describe the responsibility of one's local, state, and national government for accident prevention and control.
- Describe the epidemiological approach for addressing the accident problem.
- Identify causes of accidents and recommend preventive strategies.
- Identify and appraise the factors that individuals should consider when assessing risks in their daily lives.
- Describe how to identify and prioritizes injury problems and interventions.
- Describe the use of a conceptual model for identifying intervention opportunities.



The Haddon Matrix model will be described and used in Unit 4. Pay close attention to this model. The research project will require that you implement this model in your research paper. (See page 8 of this document).

June 22<sup>nd</sup> Tuesday – Conference Call (8pm – 9pm) – You are required to participate in this conference call. During this call we will discuss the Haddon Matrix. Because of the complexity of this model you will need to download the Haddon Matrix Worksheet on IUP Moodle. The Haddon Matrix model will need to be included into your research paper but not necessarily discussed in your presentation.

- ✚ Assignment: go to the following link, <http://www.cdc.gov/injury/>, and find the ten leading causes of death for 15-24 year olds for 2003. What are the 10 leading causes of injury death for 15-24 year olds of unintentional deaths for 2003? For the age group 1-4, what is the second leading cause of unintentional injury deaths for 2003?
- ✚ Assignment: Haddon Matrix Worksheet. The worksheet can be downloaded as a Word document. Please follow the directions at the top of the worksheet.

#### Unit 4 – Motor Vehicle Injuries (Chapter 9)

- Identify the primary causes of motor-vehicle accidents and the select countermeasures for either prevention or mitigation of the problem.
- Describe the history of driving and how it has affected society.
- Identify and define risk factors involved in the highway transportation system.
- Identify the benefits of safety belts and other occupant restraint systems in today's vehicles.
- Identify the different types of drivers and the risk factors associated for age groups.
- Describe the different types of interventions used to mitigate the traffic problem.
- Describes the risk associated with distracted driving and fatigue.

June 24<sup>th</sup> Thursday – You will be required to post your results of your Seatbelt on the IUP Moodle discussion board. This must be done prior to the below chat room which starts at 8pm. Please watch the video “Reducing Your Risk in the Crash” prior to the chat room.

- ✚ Chat Room (8pm – 9pm) Your results from your Seatbelt Survey will be viewed from the discussion board and discussed during this chat room.
- ✚ Assignment: to the following link, <http://www-fars.nhtsa.dot.gov/Main/index.aspx> and under the “people” tab find the total number of motorcycle fatalities in 2007 for the USA. What age group has the highest fatalities reported? Should motorcycle helmets be mandatory for all riders regardless of age or experience? Explain your rationale in a short reflection.
- ✚ Assignment: You are to conduct a seatbelt survey using the Seatbelt Observation Form. You will be responsible for identifying drivers, passengers, and children who are wearing seatbelts. The Seatbelt Observation form has 40 slots for checking off vehicles' that you indentify. Once you have observed 40 cars and the form is finished, tabulate the number of drivers, passengers, children that are wearing or not wearing seatbelts. Come up with a percentage for each category. Results will be posted on the IUP Moodle discussion board. Details on this assignment will be discussed during the first day the course meets on the IUP campus.

↓ Seatbelt Survey (see IUP Moodle for details)

↓ Video – Reducing Your Risk in the Crash

June 29<sup>th</sup> Tuesday - Conference Call (8pm – 9pm) – You are required to participate in this conference call. During this call we will discuss the safety presentation component which will take place on July 2<sup>nd</sup>, 2010 at IUP in the R&P Building simulation lab.

#### Unit 5 – Program Evaluation (Chapter 4)

- Understand the importance of evaluation and why and when evaluation should be done.
- Describe how evaluation should be integrated into intervention design and implementation.
- Identify the potential barriers to specific types of evaluation and approaches to overcome these.

#### Chapters 10, 11, 12, 13, 14, and 15 from Injury Prevention

- Describe the responsibilities of the first responder and the liability risks assumed when rendering help.
- Demonstrate practical and cognitive skills for American Red Cross Basic Life Support.
- Demonstrate the ability to teach the American Red Cross Standard First Aid Course and CPR.

July 1<sup>st</sup> Thursday – Part Three of your safety project is due. Your research paper must be submitted by the end the day.

July 2<sup>nd</sup>, Friday – Safety project presentations and First Aid/CPR materials.

↓ 8am – 10am - Safety Presentations

↓ 10am – 4:30pm - Once the safety presentations are finished the First Aid/CPR content portion of this course will begin. Remember to bring the required textbook and resuscitation mask.

HPED 251 Foundations of Safety and Emergency Health Care  
Overview of Safety Research Project

The purpose of this assignment is for students to gain experience serving as safety educators, and to reinforce the important point that many instances unintended injury and death could in fact have been prevented. Students will research an event that results in injury/death/significant property damage. Following the compilation and organization of all relevant information, students will submit a typewritten paper on their topic to the instructor, and then conduct a presentation covering all significant findings to their classmates. The project is worth 100 points, which will be distributed among the following components:

- I. Verification of Data Collection – 20pts
- II. Research Paper – 40 points
- III. Presentation – 40 points

In-class presentations will take place towards the end of the semesters at the on the IUP campus. Class meeting dates are listed on page one under the course description. Dates will be posted on the Moodle bulletin board.

Topics for consideration are listed below, although students are not limited to those provided. Students cannot select the same topic, or topics that have significant overlap. Topic selection is on first come, first served basis.

Topics for Consideration

Back injury	electrocution
Drowning	home fires
Motorcycle safety	hiking accidents / injuries
Hunting accidents /injury	weight training accidents / injuries
Boating accident	playground injury
Toy safety	food poisoning
In-line skating accidents/injury	
Cycling accidents/injury	all-terrain vehicle accidents
Pedestrian injury and safety	skiing accidents / injury
School violence prevention	
slips and falls (all ages: children through adults)	
Motor vehicle accidents (fatigue, car phones, other distractions)	

HPED 251 Foundations of Safety and Emergency Health Care  
Safety Research Project: Part I

Part I: Verification of Data Collection, 20 points

Information for this project must be obtained from a minimum of ten separate Internet sites related to the student's topic. Each student must submit acceptable documentation that supports data collection has been initiated. This documentation should be in the form of printed information obtained from the selected Internet sites from which data was collected. What a student submits must be put together as follows:

A. Title Page

This should have the selected topic identified, the name, and the course section number.

B. Internet Printouts

From EACH of the Internet sources selected, print the entirety of content from which information will be taken, and staple these pages to the Title Page. Make sure the Internet addresses are included on the printouts, so that I may go there for verification purposes if desired. Home pages without substantial content pertaining to your topic will not count as verification of data collection. Make sure information from the different sources is submitted – 2 or more articles from the same site won't earn full credit.

Failure to submit the documentation by the due date will result in an automatic deduction of 10 points from the overall point total.

To aid in your data collection efforts, be looking for information that pertains to the following:

- Who is impacted; what group or groups of persons are most affected
- What are the costs associated with this accident/injury-related issue
  - : To the persons involved; to society as a whole
- What are the leading causes of the accident/injury-related issue?
  - : Follow the epidemiological model – host, agent, and environment
- What is being done to prevent and mitigate the accident/injury?

HPED 251 Foundations of Safety and Emergency Health Care  
Safety Research Project: Part II

Part II: Research Paper (40 points)

Each student must submit a typewritten research paper on the due specified by the instructor. The following components are required.

I. Title Page

Should contain student name, section number and an original title.

II. Body of Paper (5 pages in length) Title page and reference pages do not count towards page total. All of the following sections must be included. Use the same headings that are in bold, and ensure they are easily identified.

**Introduction**

Address the following:

- Explanation / description of the accident / injury area you've selected to research
- Description of the persons at risk: those impacted by the accident / injury event  
(What demographic characteristics do these victims possess? When applicable, be very specific. In your research you probably discovered certain groups designated as higher risk, according to their age, race, gender, education level, occupation, etc.)
- Describe the significance of learning about this topic  
Why is this accident / injury area worth researching and educating others about? Cite statistics to support its significance, such as: numbers / percentages of people injured / killed annually; monetary costs incurred individually, or on the societal level; number of people who visit hospital emergency rooms, etc.)

**Description of Contributing Factors**

Utilizing the Epidemiological Model or the Haddon Matrix Model as a guide, thoroughly explain all of the factors that contribute to the occurrence of the accident / injury event. Break the factors down into the following categories:

**Host Factors**

- Identify and describe the human characteristics that more commonly exist when the event is experienced.

**Agent Factors**

- Identify and describe the characteristics of any objects involved that contribute to the occurrence of the event.

**Environmental Factors**

- Identify and describe the features of the physical surroundings that contribute to the occurrence of the event.

The number of Host, Agent and Environmental factors described will vary, dependant upon the specific accident / injury scenario selected. Your responsibility is to identify all the significant factors within each category and explain how they contribute to the event.

HPED 251 Foundations of Safety and Emergency Health Care  
Assignment: Safety Research Project  
Part III: Presentation

Part III: Presentation (40 points)

Students are responsible for planning and conducting a 10-15 minute presentation that will focus on the significant content surrounding the researched topic. Presentations will be given in class on July 2, 2010 at IUP in the R&P Building Simulation lab. All students must address the following four areas in their presentations.

**I. Introduction**

Describe your accident / injury situation, and convince your audience of its significance. Describe who is affected and when they are at risk. Identify, when applicable, specific subgroups that are most impacted by this accident / injury event. Cite statistics you've gathered that support the significance of the problem in terms of numbers / percentages of persons affected, as well as resulting costs (monetary, death, disability).

**II. Description of Contributing Factors**

Thoroughly explain the major factors that contribute to the occurrence of the problem, with the factors categorized according to those contained within the epidemiological model: human, environmental and agent. Explain how specific factors interact to contribute to the occurrence of the accident / injury situation.

**III. Prevention Strategies**

Describe what actions can be taken to prevent the accident / injury event from occurring. Be specific. Include any statistics that support the effectiveness of prevention strategies already in place.

**IV. Mitigating Strategies**

Describe what strategies exist to lessen the severity of damage that could result (in terms of injury, death, destruction of property) should the event occur. Be specific. Include any statistics that support the effectiveness of any mitigating strategies already in place.

Students are expected to develop energetic, enthusiastic, interactive presentations. Students grades will suffer significantly if all that is done during the presentation is reading from printed material. Students are encouraged to bring in props, materials, or other related objects that may enhance your presentation. Role-playing, demonstrations, and other effective ways to communicate ideas and information are also appropriate. The use of audiovisual equipment is not required; however, if you plan to use any equipment other than the overhead, let the instructor know ASAP, so that it can be reserved for class. If a PowerPoint presentation is going to be constructed, a minimum of 20-point font should be utilized for all words.

**PLEASE READ:** If using PowerPoint during the presentation you must have your presentation file saved on CDROM/USB Drives or emailed two days prior to [lpesci@iup.edu](mailto:lpesci@iup.edu).

# SAMPLE MODULE



- People
  - Participants
- Activities
  - Assignment
  - Forums
  - Quizzes
  - Resources
- Administration
  - Turn editing on
  - Settings
  - Grades
  - Calendar
  - Courses
  - Backup
  - Restore
  - Import
  - Reports
  - Questions
  - Files
  - Profile
- Search Forums
 

Go

Advanced search
- My courses
  - Fall 2009 HPED 251 001
  - Fall 2009 HPED 252 001
  - Summer 2009 HPED 252 401

Weekly outline

- News forum
- Download the following free viewers if you cannot open files in this course
  - Presentation Viewer
  - Adobe PDF viewer
  - HPED 251 Outline

Remember to save your changes on Moodle when working on assignments. The safety education component of this courses allows you to resubmit assignments multiple times during the time the assignments are open. Assignments are not graded until the time frame has ended for that particular assignment.

- Unit 1 - Magnitude and Burden of the Injury (Chapter 1)
- Unit 1 Presentation

Reading assignments from *Injury Prevention*. During this component of the course we will be using *Injury Prevention* to supplement the course materials. Specifically, chapters 1, 2, 3, and 9 will be discussed in class. Chapters 1 and 3 discuss various injuries model in detail which will be used in class. Depending on topic selection for the research project chapter 9 - Motor Vehicle Injuries, Chapter 10 - Poisoning, Chapter 11 - Fall injuries, Chapter 12 - Choking, Suffocation, and Strangulation, Chapter 13 - Drowning, and Chapter 14 - Residential Fire Injuries and Chapter 15 - Firearm injuries can be used as a resource, if selected, to develop materials for the research paper and presentation.

- Safety Related Topics
- Unit 1 - continued (Haddon Matrix) - Chapters 1, 3, and 4 of *Injury Prevention* explain this model. Either the epidemiological model or the Haddon Model can be used to help explain your topic for the research project.
- Haddon Matrix Presentation
- Resides the Haddon Matrix another way of evaluation high risk situations is through the use of case studies. During this

Latest News  
Add a new topic  
(No news has been posted yet)

Upcoming Events  
Outgoing time to live  
Tuesday, 8 October  
Go to calendar  
New Event

Recent Activity  
Activity since Tuesday, 29 September 2009, 02:08 PM  
Full report of recent activity

Nothing new since your last login







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Week	Name	Assignment type	Due date	Submitted	Grade
3	Final Exam	Online text	Tuesday, 15 September 2009, 11:55 PM	View all submitted assignments	
	Midstate Data report and analysis	Upload a single file	Tuesday, 15 September 2009, 11:55 PM	View all submitted assignments	
	Midstate Data Assignment	Online text	Wednesday, 16 September 2009, 11:00 PM	View all submitted assignments	
4	Reading course on waste assignment	Online text	Thursday, 24 September 2009, 11:55 PM	View all submitted assignments	
	Environmental Factors	Upload a single file	Friday, 25 September 2009, 11:55 PM	View all submitted assignments	
6	Dangerous Time to Drive	Online text	Tuesday, 6 October 2009, 11:55 PM	No attempts have been made on this assignment	
8	Final two of research project (research paper)	Upload a single file	Thursday, 22 October 2009, 11:55 PM	No attempts have been made on this assignment	

ⓘ Make links for this page

You are logged in as Louis Pasco (Logout)

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Go to the following link, <http://www.cdc.gov/nipw/> and find ten leading causes of death for 15-24 year old for 2003 or the most current spread sheet listed. Answer the following

1. What are the 10 leading causes of injury death for 15-24 year old of unintentional deaths for 2003? List
2. For the age group 1-4, what is the second leading cause of unintentional injury deaths for 2003? List
3. The age group under 1 list what type of injury death as rank one?
4. The age group 65+ list unintentional falls as the leading death for this age group. The fall itself may be the primary factor for death but what other factors must be considered with this age group? Explain.

Available from: Wednesday, 23 September 2009, 09:00 AM  
Due date: Thursday, 24 September 2009, 11:55 PM

# Unit 3 Program Planning

# How to identify injury problems

- How do you prioritize health problems? Which one deserves the most attention? Which programs will work to reduce the problem?
- Leading cause of death – stats gathered can pinpoint problem areas.
  - o deaths
  - o All injuries
  - o Unintentional injuries

# How to identify injury problems

- Computing in dollars what injuries cost based on a individuals life span.
- Research indicates that individuals reach their creative and productive peaks between 50 and 55 years of age.
- In 1982 the Centers for Disease Control developed a measure of injury known as the Years of Potential Life Lost (YPLL) Index.
  - \* Persons age at death from their life expectancy (75 years)
  - \* Average YPLL for death, from heart disease and cancer are 12-16 years.
  - \* Average YPLL for death , from accidental deaths including homicides are 40 years and 35 years.
  - \* Loss per injury death \$335,000, heart disease \$51,000, and cancer death \$88,000.

# How to identify injury problems

- Economic costs —
  - Which is costing society the most
  - Very hard to determine
- Media
  - Can bring attention to problems (may exaggerate the problem)
- Surveillance Systems
  - Monitoring fatalities by statistical data

# Hanlon Method – Prioritizing injuries

- Method is based from size of problem, severity of problem, and potential effectiveness of interventions
- Component A – size of problem
  - Number of people affected or mortality rate in a population of people (see page 70 on Injury Prevention)
- Component B – Seriousness of the problem (This component has more weight than other components) page 71
  - Urgency for addressing the problem
  - Severity of problem
  - Economic losses
    - Each item ranked (1 low to 10 high) average taken

# Hanlon Method – Prioritizing injuries

- Component C – Effectiveness of available interventions
  - Other research may be used to determine the effectiveness of program that is currently being used
  - See page 71
- Component D – group of factors that determine whether a particular intervention can actually be carried out
  - Propriety
  - Economics
  - Acceptability
  - Resources
  - Legality



# Hanlon Method – Prioritizing injuries

- Calculating Priority Scores
- Components A, B, and C are used to determine a priority score
- Priority score =  $[A + (2 \times B)]$
- Use table 3-7, 3-9, 3-10, and 3-11 to determine injuries from car collisions
- How about bicycle injuries or substance abuse?