Course Overview: This course will introduce students to the road safety problem, data sources, research methods used in the field as well as how intervention and prevention programs are developed and evaluated utilizing lecture-based and hands-on approaches.

Credits: 2 semester hours

Course Directors:
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Course Goals and Objectives
At the end of the course the student will be able to:
1. Identify and access road injury data sources
2. Describe and prioritize global road traffic safety problems in specific sub-populations and geographic areas
3. Quantify and prioritize risk factors contributing to road traffic safety problems within specific geographic areas and sub-populations
4. Identify strategies to prevent road traffic crashes and injuries within specific geographic areas and sub-populations
5. Understand road safety research methods and how to evaluate injury and crash prevention methods globally

Readings and Course Materials

- WHO Global Status Report on Road Safety 2013
- WHO World Report on Road Traffic Injury Prevention, 2004
- WHO Road Traffic Injury Prevention Training Manual
- Global Health Data Exchange- Global Burden of Disease Study, 2010
  - Data visualizations: http://www.healthmetricsandevaluation.org/tools/data-visualizations
- Journal articles and other supplemental readings will be provided.
<table>
<thead>
<tr>
<th>UNIT 1: ROAD SAFETY TRENDS AND CULTURE</th>
<th>FACILITATOR</th>
<th>READINGS AND ASSIGNMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/20/15</td>
<td>Course Introduction</td>
<td>Hamann</td>
</tr>
<tr>
<td>2 1/22/15</td>
<td>Road safety as a global public health &amp; social equity issue</td>
<td>Hamann</td>
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<tr>
<td>3 1/27/15</td>
<td>Global estimates, regional distribution, and trends of road safety problems</td>
<td>Hamann</td>
</tr>
<tr>
<td>4 1/29/15</td>
<td>International issues and strategic highway safety planning <em>CLASS WILL BE HELD IN C217AB, CPHB</em></td>
<td>Beth Alicandri</td>
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<tr>
<td>5 2/3/15</td>
<td>International perspectives on traffic safety culture</td>
<td>Peek-Asa</td>
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<tr>
<td>6 2/5/15</td>
<td>Policy</td>
<td>Peek-Asa, Hamann</td>
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</tbody>
</table>

**UNIT 2: ROAD SAFETY RESEARCH**

| 7 2/10/15 | Epidemiologic methods (incidence, prevalence, study designs: cross-sectional, case-control, cohort) | Hamann | WHO Training Manual, Unit 3, pgs 49-56 |
| 8 2/12/15 | Domestic and international road safety data sources & data collection | Peek-Asa | WHO Training Manual, Unit 3, pgs 43-49 |
| 9 2/17/15 | Simulation | John Gaspar | Gaspar et al. (2014) article; Caird simulation chapter |
| 10 2/19/15 | Naturalistic approaches | Dan McGehee | McGehee et al 2007 article; SWOV fact sheet |
| 11 2/24/15 | Data Analysis Lab - Analyze global health data. | Hamann | Read HW 2 instructions prior to class |
| 12 2/26/15 | Data Analysis Lab | Hamann | TBA |
| 13 3/3/15  | Mapping Lab | Hamann | TBA |
| 14 3/5/15  | Mapping Lab - ArcGIS | Hamann | TBA |

**UNIT 3: HUMAN FACTORS**

| 15 3/10/15 | Field trip: Tour of the Hank Virtual Environments Lab Bicycle and pedestrian simulators *CLASS WILL BE HELD ON 3rd floor, MacLean Hall* | Elizabeth O’Neal and Joe Kearney | HW 2. Descriptive analysis report due |
| 16 3/12/15 | Behaviors (e.g., horn honking, distraction) | Dan McGehee | TBA |
| 3/17/15& 3/19/15 | Spring Break | -- | -- |
17 3/24/15 Human factors 101: Demographics, experience, and alcohol and drug impairment Hamann TBA
18 3/26/15 Education: safety awareness, training, and licensing Peek-Asa TBA
19 3/31/15 Driving across the lifespan Peek-Asa HW 3. Simulator Scenarios Due

UNIT 4: ENVIRONMENT
20 4/2/15 Engineering: Road system design Shauna Hallmark TBA
21 4/7/15 Roadway factors and safety, Complete streets Hamann TBA
22 4/9/15 Countermeasure selection based on human factors principles John Gaspar TBA
23 4/14/15 Post-crash care (International perspectives, TraumaHawk) Peek-Asa & Dan McGehee WHO Training Manual, Unit 5, pgs 79-85

UNIT 5: VEHICLE/MODE
24 4/16/15 The global vehicle fleet and rapid motorization Hamann TBA
25 4/21/15 Vehicle design/smart vehicles Chris Schwarz HW 4. Comparison paper due
26 4/23/15 Vulnerable Road users: mopeds, motorcycles, bicycles, pedestrians Hamann TBA
27 4/28/15 Commercial vehicles and transit Hamann WHO Global Status, Section 3, pgs 29-36

FINAL PRESENTATIONS
28 4/30/15 Final Presentations Students --
29 5/5/15 Final Presentations Students --
30 TBA Finals Week- Final Presentations Students --

**The instructors reserve the right to make changes to this schedule and other course components, as needed.**

Administrative Home
This course is given by the College of Public Health and the departmental home is Occupational and Environmental Health. This means that class policies on matters such as requirements, grading, and sanctions for academic dishonesty are governed by the College of Public Health. Students wishing to add or drop this course after the official deadline must receive the approval of the Associate Dean for Academic and Student Affairs in the College of Public Health. Details of the University policy of cross enrollments may be found at: [http://www.uiowa.edu/~provost/deos/crossenroll.doc](http://www.uiowa.edu/~provost/deos/crossenroll.doc)

Expectations of student performance

1. **Regular class attendance is required.** Class discussion and participation (including attendance) is worth 10% of your grade. Missing more than one class session will result in a 10% deduction from your final grade, even if this absence is excused. Students are also asked to turn off cell phones during class.
2. **Completion of readings and class participation.** The readings and subsequent class discussion are essential to achieve the objectives of this course. Students are expected to complete all readings...
before class and actively participate in class discussions. Readings will be posted on ICON or emailed to you directly. All students are expected to access and read all assigned readings prior to class.

3. Assignments must be turned in on time on ICON, unless otherwise negotiated with the course instructors.

4. Class communication will be handled through standard University of Iowa email (@uiowa.edu) and the ICON. University policy specifies that students are responsible for all correspondence sent to their standard University of Iowa (@uiowa.edu) e-mail address. Students are expected to regularly check their email accounts and the course site on ICON for updates, schedule changes, and announcements.

Expectations of course assignments

All assignments will be evaluated using the following criteria:

1. The extent to which the stated requirements of the assignment are met; students will receive an outline for each assignment that articulates the required components of the assignment;

2. Clarity of organization and writing; papers should be double-spaced, 1 inch margins, and proofread for typographical, spelling, and grammatical errors; and

3. Appropriate application, analysis, and synthesis of course content.

4. All written work must include citations in APA format, where appropriate, to avoid plagiarism. Papers without proper citations may be assigned a grade of “F”. If you are not sure how to properly cite material, please consult with the course instructor.

Grading procedures

Grades will be based on a standard letter scale of A to F, including plus and minuses. Evaluation of student learning will be based on homework assignments, final presentation, and in-class discussion and participation. Final grades will be based on total percentage points earned as follows:

<table>
<thead>
<tr>
<th>Component</th>
<th>Points</th>
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<tbody>
<tr>
<td>Homework</td>
<td>50pts @ 12.5pts each assignment</td>
</tr>
<tr>
<td>Final Presentation</td>
<td>40pts</td>
</tr>
<tr>
<td>Class Discussion and Participation</td>
<td>10pts</td>
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<td>100pts</td>
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Availability of Accommodations for Students with Disabilities

Any student eligible for and needing academic adjustments or accommodations under the Americans with Disabilities Act is requested to notify the instructor as soon as possible to make appropriate arrangements.

Procedures for student complaints

Students who have a concern about a faculty action should first address the issue with the instructor and then the departmental DEO. Students may also contact the Associate Dean for Education and Student Affairs in the College of Public Health. Another resource for students is the Office of the University Ombudsperson. If a complaint cannot be resolved at the departmental and/or collegiate level, students may file a formal complaint utilizing the procedure specified in the Operations Manual (II-29.7)

Collegiate Policy on Plagiarism and Cheating

Academic misconduct is defined by the University of Iowa in its Code of Student Conduct here: [http://dos.uiowa.edu/policy-list/current/student-responsibilities-6/academic-misconduct-6/](http://dos.uiowa.edu/policy-list/current/student-responsibilities-6/academic-misconduct-6/). Please take the time to read this short description. Academic misconduct refers primarily to plagiarism or cheating. It is the student's responsibility to seek clarification from the course instructor of any situation in which he/she is uncertain whether academic misconduct is/has been involved. Plagiarism and any other activities when students present work that is not their own are academic fraud.

Academic Misconduct includes but is not limited to the following:
• presentation of ideas of others without credit to the source;
• use of direct quotations without quotation marks and without credit to the source;
• paraphrasing without credit to the source;
• participation in a group project which presents plagiarized materials;
• failure to provide adequate citation for material obtained through electronic research;
• downloading and submitting work from electronic databases without citation;
• submitting material created/written by someone else as one’s own, including purchased term/research papers;
• copying from someone else’s exam, homework, or laboratory work
• allowing someone to copy or submit one’s work as his/her own;
• accepting credit for a group project without doing one’s share;
• submitting the same paper in more than one course without the knowledge and approval of the instructors involved;
• using notes or other materials during a test or exam without authorization;
• not following the guidelines specified by the instructor for a “take-home” test, exam, project, or assignment.

Academic misconduct is a serious matter and is reported to the departmental DEO and to the Associate Dean for Education and Student Affairs. Instructors and DEOs decide on appropriate consequences at the departmental level while the Associate Dean enforces additional consequences at the collegiate level. For example, an incident involving plagiarism will result in consequences to the student ranging from a grade of 0 for that assignment to being terminated from his/her graduate program. Egregious acts of misconduct, such as cheating on a final exam, may result in the course grade being reduced to an F. Additional details concerning the consequences associated with acts of plagiarism, including a student appeals process, is provided in the Graduate College Manual section IV.F.

Resources for obtaining additional help
The university provides support and assistance to students who, for a variety of reasons, may be experiencing academic problems. Such students should speak with the Undergraduate or Graduate Coordinator to arrange for special support services.

Concerns about faculty actions
Students who have a concern about a faculty action should first address the issue with the instructor, then the course supervisor (if there is one), and then the departmental DEO. Students may also contact the Associate Dean for Education and Student Affairs in the College of Public Health. Another resource for students is the Office of the University Ombudsperson. If a complaint cannot be resolved at the departmental and/or collegiate level, students may file a formal complaint utilizing the procedure specified in the Operations Manual (II-29.7)

Understanding Sexual Harassment
Sexual harassment subverts the mission of the University and threatens the well-being of students, faculty, and staff. All members of the UI community have a responsibility to uphold this mission and to contribute to a safe environment that enhances learning. Incidents of sexual harassment should be reported immediately. See the UI Operations Manual for the full University Policy.  http://www.uiowa.edu/~our/opmanual/ii/04.htm

Reacting Safely to Severe Weather
In severe weather, class members should seek appropriate shelter immediately, leaving the classroom if necessary. The class will continue if possible when the event is over. For more information on Hawk Alert and the siren warning system, visit http://hawkalert.uiowa.edu/