**Bulletin Description:** (1). This is a graduate level course for students who have selected Occupational Safety and Ergonomics (OSE) or Occupational Injury Prevention (OIP) as their focus area within the Industrial and Systems Engineering Graduate curriculum. Activities will include: classroom lectures by faculty; lectures by visitors/experts in OSE/OIP and senior doctoral students; laboratory demonstrations; selected readings; study and discussions of research literature; interdisciplinary plant/facility visits and activities with students from the Deep South Center for Occupational Health and Safety at the University of Alabama at Birmingham (UAB). Meets with UAB courses ENH 680 and NUR 690 (all 3 Interdisciplinary OSH courses coordinate throughout the semester).

**Professional Objectives:** The objective of this course is to expose OSE and OIP students to current research literature, research processes and professional practice issues in Occupational Safety and Health and Injury Prevention. Work effectively with other OSH professionals on interdisciplinary OSH projects. Emphasis is placed on student professional development, life-long learning, and career success strategies in the professional practice of OSH. Students develop a portfolio of work and experiences intended to prepare them for professional certification in OSH.

**Faculty:** Richard Sesek, PhD, MPH, CSP, CPE, 3312 Shelby Center, sesek@auburn.edu
Robert Thomas, PhD, PE, CPE, 3301G Shelby Center, rthomas@eng.auburn.edu
Jerry Davis, PhD, CPE, CSP, 3310 Shelby Center, davisqa@auburn.edu
Sean Gallagher, PhD, CPE, 3304 Shelby Center, sgallagher@auburn.edu
Mark Schall, PhD, AEP, 3301H Shelby Center, mark-schall@auburn.edu

**Collaborating UAB Faculty:** Tran Huynh, PhD, CIH, Jennan Phillips, PhD, MSN, RN, FAAOHN

**Text:** Since this is a forum class, there is no central or main text. Numerous texts are available in the OSE/OIP library and are referenced as necessary.

**Office Hours:** Wednesday 10:00 am – 12:00 pm and by appointment

**Attendance:** Attendance is required for this course and will be taken.

**Evaluation of Student Performance:** Grades will be based on attendance and participation as described below. All students are expected to create an "e-portfolio" to track and log their respective OSH milestones and achievements while participating in the OSE and OIP programs ([http://wp.auburn.edu/writing/eportfolio-project/](http://wp.auburn.edu/writing/eportfolio-project/)). Students must have an Approved University excuse ([www.auburn.edu/student_info/student_policies/](http://www.auburn.edu/student_info/student_policies/)) for any absences ("Tiger Cub" excuse).

**Note:** While this course is delivered and graded by OSE faculty at Auburn University, input from and interaction with other faculty and students at the Deep South Center for Occupational Health and Safety (Occupational Health Nursing and Industrial Hygiene) are critical. **This is an interdisciplinary course and requires interdisciplinary interaction with your colleagues from the Deep South Center.** The practice of Occupational Safety and Health requires the effective interaction of many disciplines. A core mission of this class is to facilitate and foster mutually beneficial collaborations among OSH practitioners.
Grading -- 7190

200 Attendance: (unexcused absences -20 pts/class missed, -100 pts/ERC meeting missed)
100 CITI/IRB/Ethics/Responsible Conduct of Research Training (Note: to participate in human-subjects research you must complete CITI training!)
250 ePortfolio completion: complete & professional presentation (100); personal statement (25); resume/vita (50) NIOSH appointment/OSEIP form and plan of study (25); OM clinic rotations (25).
225 Interdisciplinary interaction* (documented hours of OSH-related activities)
125 Safety Professional Experience (Safety Professional “Shadowing” and report)
100 OSE Book Review
1000 Total Points

Grading -- 7390

200 Attendance: (unexcused absences -20 pts/class missed, -100 pts/ERC meeting missed)
350 ePortfolio revision/update: complete & professional presentation (100); personal statement (25); resume/vita (50) NIOSH appointment/OSEIP form and plan of study (25); audit/review 2 ePortfolios for 7190/7390 students (50); submit manuscripts, conference proceedings, posters, funding proposals, and/or other scholarly output (100).
225 Interdisciplinary interaction* (documented hours of OSH-related activities)
125 Safety Professional Experience (Safety Professional “Shadowing” and report)
100 OSE Book Review
1000 Total Points

*Interdisciplinary interaction includes all OSH-related activities. You are especially encouraged to interact and collaborate with Deep South Center faculty and students from OHN and IH. You must log at least 45 hours. You may count: attendance at this seminar; participation in DSC activities; attendance at HFES, ASSE, AIHA, AAOHN, and other OSH related professional meetings; volunteering to assist on research projects (not your on research!); seminars, presentations, and webinars that are OSH related; shadowing OSH professionals; occupational site visits; interviews with OSH professionals outside your discipline; and all interactions with your DSC project team members (live or virtual).

7390 students are expected to assume leadership roles, which include assisting in the implementation of syllabus elements (suggesting/approving ePortfolio formats, generating hours-logs, identifying safety shadows, and selecting OSE books for review).

Grading Scale
("straight scale")

A $\geq$ 900
B 800 - 899
C 700 - 799
D 600 - 699
F < 600

Tentative Schedule

Lecture Class meets on Wednesday 12:00 to 12:50 in the Shelby Center ISE Seminar Room (3210). In addition, ERC Interdisciplinary meetings are scheduled to accommodate students at both Auburn and UAB and may differ from the time and duration above (e.g., may require a trip to Birmingham, field site visits, etc.).

NOTE: Topics will vary from schedule depending on ERC trainee meeting times/locations, the availability of guest speakers, response to current OSH events, and unforeseen circumstances. This schedule will change. We will meet each week
and will notify you in advance (via OSE/IP mailing list) if there is a change to the schedule (e.g., Friday meeting, rather than Wednesday meeting, etc.).

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<tr>
<th>Week</th>
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<th>Classroom Topics</th>
<th>Faculty</th>
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<td>8/19</td>
<td>Course Overview &amp; Introduction</td>
<td>Davis</td>
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<td>2</td>
<td>8/26</td>
<td>Graduate Led Seminar Assignments</td>
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<td>3</td>
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<td>Ethics/IRB/Responsible Conduct of Research</td>
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<td>OSE/IP Faculty</td>
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<td>6</td>
<td>9/23</td>
<td>HATCI Data Collection/Reduction</td>
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<td>7</td>
<td>10/2</td>
<td>Interdisciplinary Meeting (ERC Group)</td>
<td>Huynh/Sesek</td>
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<td>8</td>
<td>10/7</td>
<td>HATCI Data Analysis</td>
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<td>9</td>
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<td>13</td>
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<td>Li Cao Doctoral Proposal</td>
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<td>7190/7390 portfolio presentations</td>
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<td>15</td>
<td>12/2</td>
<td>Planning/preparation for 7290/7490 Practicum</td>
<td>OSE/IP Faculty</td>
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Course Overview and Evaluation

*ERC Interdisciplinary Events, all NIOSH students are required to attend!*
+ Deep South Center Colleagues (UAB)

9/11 (10 am – 12:30 pm) Team building activities day. Students meet at Red Mountain Park.

10/2 (10 am – 3:30 pm) Site visit at Vulcan Quarry and MSHA office.

For information on Auburn University’s policies on Academic Honesty and Special Accommodations for Students with Disabilities, refer to the Industrial and Systems Engineering Web Page and Select the ”Standard ISE Course Policies” link:


Safety professional experiences must be approved by Dr. Sesek. You will be assigned to an occupational safety and health professional. You will "shadow" that individual for one day and provide a report documenting your experiences.

All OSE/OIP students are expected to briefly report on the status of projects and their research at each weekly seminar meeting.