

# **OEHS 7810 Advanced Seminar in Occupational Health Psychology**

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## **Required Materials**

[List references for books and other materials for the course here.]

# **Course Description**

Students will learn about the current Total Worker Health® approach to creating safe and healthful work environments. This perspective emphasizes integrating traditional controls to protect workers from injury and occupational illness with protections and supports to advance well-being and health. The first priority within this perspective is to identify workplace hazards and implement interventions to eliminate or control them. However, this expanded perspective also encourages workplace enhancements that foster worker health and well-being. An additional theme of the course is research-to-practice. In this regard, readings include scientific and practical topics focused on research and application within a specific high-risk industry, including the industry's significant hazard exposures and safety/health consequences for workers. A Portland-area safety and health professional may provide a guest lecture. Topics will include Total Worker Health (TWH) and the hierarchy of controls, occupational safety and health professions, legislation and safety/health systems (e.g., OSHA, workers' compensation, health care), hazard assessment and communication (physical, chemical, and psychosocial hazards), labor-management relations, social justice and occupational health, engineering and job/system design controls (including shiftwork), ability controls (personnel selection, training, and coaching), and motivational controls (e.g., leadership, worker choice/discretion, "nudge" environmental changes, feedback, incentives), and social validity of interventions.

### **Course Outcomes**

- Explain the contemporary *Total Worker Health*® perspective for protecting and promoting worker safety, health, and well-being.
- Evaluate the role of employers and labor, government regulation, health care systems, and workers' compensation systems in occupational health.
- Construct examples of social injustice in occupational health.
- Identify traditional and non-traditional risk factors/exposures that contribute to workers' poor health and safety outcomes.
- Prioritize strategies for preventing, correcting, or improving occupational injury, disease, and health problems.
- Summarize the characteristics and practices of effective leaders and organizations for positive safety, health, and well-being outcomes.
- Integrate, synthesize, and apply principles, strategies, and tactics to example work environments.

• Understand social validity and practical importance as it relates to the application of occupational health research.

### **Course Policies**

# **Late Paper/Assignment Policy**

Assignments will receive a **10% deduction for each day they are late**. No work will be accepted after the final exam has been given.

# **Missed Presentation Policy**

If a student misses class on their presentation day with 24-hour advanced notice, I will work to arrange an alternate presentation day for that student team/group. If a student misses their presentation without advanced notice, their teammates will present without them and that individual student can record their own version of the presentation on their own for a maximum of 80% credit, depending on their performance. The recorded presentation will be due the next class period and after that will receive an additional 10% deduction each day.

# **Grading Policy (Evaluation Methods & Criteria)**

Class Points	120
Exam Points (2x50)	100
Project Points	100
TOTAL POINTS	320

## **Grading criteria for this course:**

100% - 92% A 92% - 90% A-90% - 88% B+ 88% - 82% B 82% - 80% B-80% - 78% C+ 78% - 72% C 72% - 70% C-Below 70% D

### FURTHER COURSE BACKGROUND and HOW POINTS ARE EARNED

An overarching strategy for the course is to introduce students to a *Total Worker Health*® approach to Occupational Safety and Health research and practice by emphasizing a particular high-risk industry in readings, guest lectures, and field experiences (as possible). While most content will focus on urban mass transit and the transportation industry this semester, we will also expose you to occupational health issues in other sectors.

National Institute for Occupational Safety and Health (NIOSH) developed the *Total Worker Health* (TWH) concept and defines the approach as:

policies, programs, and practices that integrate protection from work-related safety and health hazards with promotion of injury and illness prevention efforts to advance worker well-being.

This movement pushes the field of Occupational Safety and Health beyond its historical emphasis on physical and chemical hazards to consider psychosocial hazards and the impact of work on overall health and well-being. In this regard, the TWH approach recognizes that our work and non-work lives are intermingled and that there can be powerful interactions between work exposures and what we eat, how we sleep, our physical activity levels, our personal and family lives, and our risk for chronic diseases. It is a holistic and "whole person" centered approach to Occupational Safety and Health, and NIOSH's vision for the future of the discipline in research and practice.

Our class is structured into weekly units, and each class meeting will follow a similar routine of activities. Each week there will be a lecture and a discussion component (led by students) that incorporates elements of "inter-teaching" (Boyce and Hineline, 2002). For this work, students will be paired (pairs will rotate each meeting), and each team member will be responsible for specific readings and typing/writing answers to study objective questions before class. Students will then share the most compelling part(s) of the readings with their partners, exchange typed study objective answers, and share and discuss their answers. Student pairs should be prepared to share highlights and questions about readings for discussion with the larger class. Lectures will supplement reading material. Some class meetings will involve guest lectures or outside-class industrial field visits, and the timing of class period activities will be adjusted to make things work.

The class utilizes publicly available readings and journal articles. The schedule of readings is provided in the syllabus but may be updated. The readings and study objectives for assigned readings will be made available via Sakai at least a week before readings and study objectives are due.

#### **POINTS**

Students will earn points for <u>work in class</u> (inter-teaching and discussion leading), a <u>mid-term exam</u>, a <u>project</u> (one-page project proposal, presentation slides, and one-page project summary written for a business audience, and final project), and a <u>final exam</u>.

## Class Points (120 points)

<u>Discussion Facilitation (20 possible)</u>: Each student pair will facilitate at least 3 sessions for class discussion. Discussion leaders will develop additional discussion questions for the readings for their session. You will be awarded points based on the quality of the discussion and your leadership in class.

<u>Discussion Quality (80 possible)</u>: Each week, students will award their inter-teaching partner up to 5 points for the quality of their written answers on study guides and the discussion (0 = not prepared at all; 5 = very well prepared). These points will be awarded confidentially via email to the instructor post-class.

<u>Participation (20 possible)</u>: Students will be evaluated on their engagement and participation with the course material throughout the semester.

<u>Bonus Points</u>: Additional points may be awarded occasionally to students for class contributions above and beyond expectations – participation, project, or exam contributions.

# Exams (100 points)

Mid-term and Final exams during the semester (50 points each) will emphasize mastery of assigned reading materials on Occupational Health (additional questions will come from lecture material). Exams will be mostly essay-style and require approximately 1-1.5 hours to complete. Study objectives for readings will provide your primary guide for studying for exams.

<u>Remedial Exam.</u> For students unhappy with their Mid-term exam score, an optional remedial Mid-term exam will be offered during a time arranged outside of class time. The remedial will cover material from the first half of the semester (new questions, same content). The best exam score will stand. There will be no Remedial exam for the Final exam.

# Project (100 points [10+10+80])

Each student will complete a systematic literature review project that is worth a total of 100 points. Each student will prepare a one-page project proposal (10 points) and get feedback from the class before pursuing the idea. This proposal process is designed to ensure projects are focused on a socially and logically important *Total Worker Health*® topic. A full paper outline will be required to be turned in, but will not be graded (feedback only). Each student will also produce approximately five slides to present to the class and a one-page summary written for an industry audience (10 points). Final papers will be submitted in APA format, approximately ten pages double-spaced in length (not including references), and will be due on the class period before the final exam (80 points).

### Details on the Project: Systematic Literature Review

Examples of one-page project proposals, slide presentations, and one-page summaries for an industry audience will be provided. For any students registered for the course at the 621 level, supplemental instructions for an expanded research proposal will be provided.

The literature review project is not meant to be formal quantitative meta-analyses of a research area but rather a narrative review of findings (quantitative results and conclusions) from studies on a specific theme of social importance. Each student's review is expected to summarize findings from about 5-12 peer-reviewed studies.

This will include defining search terms and article inclusion/exclusion criteria, summarizing/reviewing what we know from included articles, and then pointing out the gap (or gaps) in the knowledge base. Project papers should conclude with a discussion of the next steps in research and/or practice in the area.

Reviews that focus on workplace interventions are highly encouraged. Given the course emphasis on the transit industry, research reviews tailored on topics relevant to that industry are also encouraged. However, the first priority is that the topic is of high interest to you personally as a student/scholar.

# <u>Doctoral Level Project Component: Proposed Research Study Addressing Literature Gap</u>

Doctoral students will complete an additional section in their written project, which is a proposed research study that would address a gap identified in the literature review. The proposed study should include a target population and sample size (based on a purpose or power analysis), hypotheses (if applicable), design, recruitment methods, and measures.

### **Course Schedule**

## **COURSE SCHEDULE**

Date	Topic	Reading and Preparation (A) or (B) indicates inter-teaching reading
WK 1	Introduction: Total Worker Health & the Hierarchy of Controls	<ul> <li>(BOTH) Schill, A. L. (2017). Advancing Well-Being Through <i>Total Worker Health</i>®. <i>Workplace Health</i> &amp; <i>Safety</i>, <i>65</i>(4), 158-163.</li> <li>(A) Barling, J., &amp; Frone, M. R. (2004). Occupational injuries: Setting the stage. In J. Barling &amp; M. R. Frone (Eds.), <i>The psychology of workplace safety</i> (pp. 3-12). Washington, DC: American Psychological Association (read only pp. 3-8).</li> <li>(B) Takala, Jukka, et al. "Global estimates of the burden of injury and illness at work in 2012." Journal of occupational and environmental hygiene 11.5 (2014): 326-337.</li> </ul>

WK 2	Occupational Safety & Health Professions  GUEST: Partnering Safety and Health Professional	<ul> <li>(A) Safe Work in the 21<sup>st</sup> Century: Education and Training Needs for the Next Decade's Occupational Safety and Health Personnel. Washington (DC): National Academies Press (US); 2000. 2, Occupational Safety and Health Professionals. Available from: <a href="http://www.ncbi.nlm.nih.gov/books/NBK225528/">http://www.ncbi.nlm.nih.gov/books/NBK225528/</a></li> <li>(B) Tse JL, Flin R, Mearns K. Bus driver well-being review: 50 years of research. Transport Res F-Traf. 2006;9(2):89-114.</li> </ul>
WK 3	Legislation, Safety/Health Systems, (OSHA, Workers Compensation, & Health Care)  Traditionally Regulated Hazards (physical, chemical, work hours)  GUEST: Industrial Hygienist	<ul> <li>(A) Roberts, K. (2003). Using workers' compensation to promote a healthy workplace. D. A. Hoffman &amp; L. E. Tetrick, (Eds.), Health and safety in organizations: A multilevel perspective (pp. 341-371). San Francisco: Jossey-Bass.</li> <li>(B) OSHA "At a Glance" Overview</li> <li>(B) Example: Material Safety Data Sheets (MSDS) for Gasoline</li> <li>(B) Permissible Exposure Limits</li> <li>(B) Example: Noise Permissible Exposure Limits (PEL)</li> <li>(B) OSHA forms for recording work-related injuries and illnesses</li> </ul>
WK 4	Hazard Communication  Guest: Library Sciences  Project pitches and	<ul> <li>(BOTH) Oregon OSHA Quick Guide to Safety Committees and Meetings (only first 16 pages)</li> <li>(A) Larkin, T. J., &amp; Larkin, S. (2007). You know safety but admit ityou don't know communication. New York City: Larkin Communication Consulting.</li> <li>(B) Wogalter, M. S., Conzola, V. C., &amp; Smith-Jackson, T. L. (2002). Research-based guidelines for warning design and evaluation. Applied Ergonomics, 33, 219-230.</li> </ul>
	discussions Review/defend literature	DUE: Draft-one page project proposal Bring copies of proposals for all classmates for
	review topics	discussion and feedback
WK 5	Occupational Fatality Surveillance and Injury Investigation Injury root cause	<ul> <li>(BOTH)</li> <li>FACE Investigations</li> <li>Three styles of root cause analysis</li> <li>The five "whys?"</li> <li>Cause and effect diagram (Ishikawa "Fishbone"</li> </ul>
	analysis methods  Labor- Management	Diagram) Interrelationship diagram  (A) Example open communications from ATU Local
	Relations	757 (ATUBargUpdate; TrimetBlindSpotSafety;

		PensionsQuestionFairness; TMExpensiveDeadAirDecision)  (B) Kelloway, E. K. (2004). Labor unions and occupational safety: conflict and cooperation. In J. Barling & M. R. Frone (Eds.), The psychology of workplace safety (pp. 249-264). Washington, DC: American Psychological Association.
WK 6	MID-TERM EXAM  • Next Steps in Project	Study for exam
WK 7	Engineering and Job Design Controls  • Ergonomic Analysis and Personal Protective Equipment  GUEST: Ergonomist	<ul> <li>(A) Krause, N., Rugulies, R., Ragland, D. R., &amp; Syme, S. L. (2004). Physical Workload, Ergonomic Problems, and Incidence of Low Back Injury: A 7.5-Year Prospective Study of San Francisco Transit Operators. <i>American Journal of Industrial Medicine</i> 46:570–585.</li> <li>(B) Dennerlein, J. T., Cavallari, J. M., Kim, J. H. J., &amp; Green, N. H. (2022). The effects of a new seat suspension system on whole body vibration exposure and driver low back pain and disability: Results from a randomized controlled trial in truck drivers. Applied ergonomics, 98, 103588.</li> <li>DUE: Final one-page project proposal. Paper outline with written search terms and databases to be searched, inclusion criteria, initial articles included/excluded.</li> </ul>
WK 8	Engineering and Job Design Controls  • Sedentary behavior topics	<ul> <li>(A) Pronk, N.P., 2021. Implementing movement at the workplace: Approaches to increase physical activity and reduce sedentary behavior in the context of work. <i>Progress in Cardiovascular Diseases</i>, 64, pp.17-21.</li> <li>(B) Panahi, S. and Tremblay, A., 2018. Sedentariness and health: is sedentary behavior more than just physical inactivity? <i>Frontiers in public health</i>, 6, p.258.</li> </ul>
WK 9	Engineering and Job Design Controls • Schedules, Policy, Systems,	<ul> <li>(A) Barger et al. (2005). Extended work shifts and the risk of motor vehicle crashes among interns. New England Journal of Medicine, 352 (2), 125-134.</li> <li>(B) Jones, J. W. &amp; Wuebker, L. (1988). Accident prevention through personnel selection. Journal of</li> </ul>

	Ability Controls  • Selection  • New  Employee  Onboarding  GUEST: Sleep/Circadian Specialist	<ul> <li>Business and Psychology, 3 (2), 187-198.</li> <li>(BOTH) Bauer, T. N., Bodner, T., Erdogan, B., Truxillo, D. M., &amp; Tucker, J. S. (2007). Newcomer adjustment during organizational socialization: A meta-analytic review of antecedents, outcomes, and methods. Journal of Applied Psychology, 92(3), 707-721. doi: <a href="http://dx.doi.org/10.1037/0021-9010.92.3.707">http://dx.doi.org/10.1037/0021-9010.92.3.707</a>.</li> </ul>
WK 10	Ability Controls  • Training Effectivene ss • Accommodations for Disabilities and Management of Health Conditions  GUEST: Training or Health Specialist	<ul> <li>(A) Burke, M., S. Sarpy, K. Smith-Crowe, S. Chan-Serafin, R. Salvador and G. Islam. 2006. Relative effectiveness of worker safety and health training methods. American Journal of Public Health. 96:315-324.</li> <li>(B) Burks, S. V., Anderson, J. E., Bombyk, M., Haider, R., Ganzhorn, D., Jiao, X., &amp; Toll, A. (2016). Nonadherence with employer-mandated sleep apnea treatment and increased risk of serious truck crashes. Sleep, 39(5), 967-975 TBD Readings on ADA, health conditions (TBI, diabetes)</li> </ul>
WK 11	Non-Traditional and Psychosocial Hazards (not always directly regulated) GUEST: Stress or Work-Family Specialist	<ul> <li>(A) Hammer, L. B., Brady, J. M., Brossoit, R. M., Mohr, C. D., Bodner, T. E., Crain, T. L., &amp; Brockwood, K. J. (2021). Effects of a <i>Total Worker Health</i>® leadership intervention on employee well-being and functional impairment. <i>Journal of Occupational Health Psychology</i>, <i>26</i>(6), 582.</li> <li>(B) M Kivima¨ki, J Head, JE Ferrie, MJ Shipley, E Brunner, J Vahtera and MG Marmot (2006). Work stress, weight gain and weight loss: evidence for bidirectional effects of job strain on body mass index in the Whitehall II study. <i>International Journal of Obesity</i>, 30, 982–987.</li> <li>DUE: Presentations and one-page summary for an industry audience</li> </ul>

WK 12	Motivational Controls	<ul> <li>(A) Hickman, J. S., &amp; Hanowski, R. J. (2011). Use of a video monitoring approach to reduce at-risk driving behaviors in commercial vehicle operations. Psychology and Behaviour, 14 (3), 189–198.</li> <li>(A) Olson, R., Rice, S. P., Bauer, T. N., Wipfli, B., Anger, W. K., Bodner, T., &amp; Greenspan, L. S. (2022). Primary Prevention of Weight Gain among New Bus Operators: Results of the Success &amp; Health Impacts For Transit Operators during Onboarding (SHIFT Onboard) Pilot Study. Journal of Occupational and Environmental Medicine, 10-1097.</li> <li>(B) Huang, Y., Zohar, D., Robertson, M. M., Garabet, A., Lee, J., &amp; Murphy, L. (2013). Development and validation of safety climate scales for lone workers using truck drivers as exemplar. Transportation Research Part F 17, pp. 5-19.</li> <li>(B) Zohar, D., &amp; Luria, G. (2003). The use of supervisory practices as leverage to improve safety behavior: A cross-level intervention model. Journal of Safety Research, 34, 567-577.</li> </ul>
WK 13	Confluence of All Controls  • Total  Worker  Health Interventio  ns  GUEST: UPower Center team member	<ul> <li>(A) Anger, W. K., Rameshbabu, A., Olson, R., Bodner, T., Hurtado, D. A., Parker, K., &amp; Rohlman, D. S. (2019). Effectiveness of Total Worker Health® interventions.</li> <li>(B) Tamers, Sara L., et al. "Envisioning the future of work to safeguard the safety, health, and well-being of the workforce: A perspective from the CDC's National Institute for Occupational Safety and Health." American journal of industrial medicine 63.12 (2020): 1065-1084.</li> <li>DUE: Full literature review project</li> </ul>

WK 14	Social Validity and Practical Significance	
	GUEST: Economist or Outreach and Education Specialist	
WK 15	FINAL EXAM	

## Finals Week:

Note: This syllabus is meant to serve as an outline and guide for our course. Please note that I may modify it with reasonable notice to you. I may also modify the Course Schedule to accommodate the needs of our class. Any changes will be announced in class and posted on Canvas under Announcements.

## **University Policies**

- 1. The Americans with Disabilities Act. The University of Utah seeks to provide equal access to its programs, services, and activities for people with disabilities. If you will need accommodations in this class, reasonable prior notice needs to be given to the Center for Disability & Access, 162 Olpin Union Building, (801) 581-5020. CDS will work with you and the instructor to make arrangements for accommodations. All written information in this course can be made available in an alternative format with prior notification to the Center for Disability & Access.
  - If in-class attendance is a necessary component of the course for pedagogical reasons (e.g., laboratories, studios, or artistic training), state it explicitly.

**Use this standard language:** "Given the nature of this course, attendance is required and adjustments cannot be granted to allow non-attendance. However, if you need to seek an ADA accommodation to request an exception to this attendance policy due to a disability, please contact the <a href="Center for Disability and Access">Center for Disability and Access</a> (CDA). CDA will work with us to determine what, if any, ADA accommodations are reasonable and appropriate

- **2.** *University Safety Statement.* The University of Utah values the safety of all campus community members. To report suspicious activity or to request a courtesy escort, call campus police at 801-585-COPS (801-585-2677). You will receive important emergency alerts and safety messages regarding campus safety via text message. For more information regarding safety and to view available training resources, including helpful videos, visit <a href="https://safeu.utah.edu">https://safeu.utah.edu</a>
- 3. Addressing Sexual Misconduct. Title IX makes it clear that violence and harassment based on sex and gender (which Includes sexual orientation and gender identity/expression) is a civil rights offense subject to the same kinds of accountability and the same kinds of support applied to offenses against other protected categories such as race, national origin, color, religion, age, status as a person with a disability, veteran's status or genetic information. If you or someone you know has been harassed or assaulted, you are encouraged to report it to the Title IX Coordinator in the Office of Equal Opportunity and Affirmative Action, 135 Park Building, 801-581-8365, or the Office of the Dean of Students, 270 Union Building, 801-581-7066. For support and confidential consultation, contact the Center for Student Wellness, 426 SSB, 801-581-7776. To report to the police, contact the Department of Public Safety, 801-585-2677(COPS).
- 4. Academic Misconduct Statement. It is expected that students adhere to University of Utah policies regarding academic honesty, including but not limited to refraining from cheating, plagiarizing, misrepresenting one's work, and/or inappropriately collaborating. This includes the use of generative artificial intelligence (AI) tools without citation, documentation, or authorization. Students are expected to adhere to the prescribed professional and ethical standards of the profession/discipline for which they are preparing. Any student who engages in academic dishonesty or who violates the professional and ethical standards for their profession/discipline may be subject to academic sanctions as per the University of Utah's Student Code: <a href="https://regulations.utah.edu/academics/6-410.php">https://regulations.utah.edu/academics/6-410.php</a>