



## OEHS 6840 Methods in Occupational Health Psychology

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**Office Hours:** By appointment

**Office Location:** RMCOEH 200 South 250 East, SLC, UT 84111 Suite 100

### Required Materials

Sinclair, R. R., Wang, M., & Tetrick, L. E. (Eds.). (2012). *Research methods in occupational health psychology: Measurement, design, and data analysis*. Routledge.

### Course Description

OEHS 6840 will introduce students to research methods used in the field of Occupational Health Psychology (OHP). According to the [Society for OHP](#), the field

*...involves the interdisciplinary partnerships of psychological and occupational health science professionals seeking to improve the quality of working life, and enhance the safety, health and well-being of workers in all occupations.*

With its interdisciplinary focus, OHP scientist-practitioners employ methods commonly used in Industrial-Organizational Psychology, but also employ measures and methods from allied fields. This course will focus on introducing students to a range of methods used in OHP via textbook, but with some additional topics introduced or illustrated via research articles. Course topics will be divided into four thematic areas:

- Research Frameworks
- Measures
- Designs
- Analyses (integrated with Designs)

The course will center on an application project where students will design their own research study in an OHP area of interest. The project writing will focus most heavily on methods. The project will take place in stages where students will prepare an outline and then written sections in stages. Each stage will be shared and informally presented in class in order to receive feedback before progressing to the next stage. The course learning experience will involve a weekly student-led process that incorporates elements of "inter-teaching" (Boyce and Hineline, 2002). Students will work in groups of 2-3 to complete written answers to reading study objectives each week, and then share and discuss their answers together in class. Each week a different student group will lead a discussion of the study objectives.

### Course Outcomes

#### Research Frameworks

- Analyze how OHP fits within the broader context of occupational and environmental health sciences
- Compare different philosophies of science that may guide OHP research methods
- Evaluate stages of research project development and different study functions
- Be able to distinguish levels of study and analysis in OHP research

- Summarize social validity and the burden, need, and impact framework

### Measures

- Debate current approaches to measuring a range of psychosocial exposures or independent variables in workplaces, including (but not limited to) organizational climate, supportive supervision, work group dynamics, work schedules and breaks, work demands/control, and work-family conflict
- Be able to analyze current approaches to measuring a range of outcomes or dependent variables in OHP, including (but not limited to) well-being, depression, anxiety, stress, sleep and fatigue, cardiovascular and immune system function, engagement, and performance
- Evaluate qualitative measurement options, including video and audio recorded verbal interactions, structured interviews and focus groups, and open-ended survey questions.
- Apply strategies for constructing a study survey, emphasizing reliable and valid survey scales

### Design and Analyses

- Determine the differences between, and know when to apply, formative/developmental research methods and fully powered/conclusive research methods
- Summarize observational, descriptive, and cross-sectional designs for identifying relationships among factors
- Defend experimental and quasi-experimental designs for drawing causal inferences
- Be able to address multiple levels of analysis in research designs, and describe some examples of multi-level research designs
- Evaluate sampling methods (including statistical power estimations) in OHP research, and generalization implications associated with different sampling approaches
- Learn practical data management, data plotting and assessment, and “cleaning” best practices
- Be able to select and compute appropriate descriptive statistics for samples, including effect sizes
- Analyze several statistical modeling methods used for some designs covered in the class
- Compose several intervention effectiveness analysis methods for some designs covered in the class

## **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.

## Assignments

Weekly Completed Study Objectives	80 pts
Class Discussion Lead	20 pts
Research Design Project	100 pts
Progressive Expanded Outline:	
• Topic Choice (5 pts)	
• Research Gap/Question (10 pts)	
• Research Design/Measures (20 pts)	
• Analysis Plan (15 pts)	
• Final Project Paper (50 pts)	
Mid-Term Exam	50 pts
<u>Final Exam</u>	<u>50 pts</u>
<b>Final Score out of a possible</b>	<b>300 pts</b>

Grading criteria for this course as follows:

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

## Grading Policy (Evaluation Methods & Criteria)

Evaluation methods include completing written study objectives and small group discussions, leading one class discussion, research project proposal, and exams. The research project proposal will include interim due dates for components of a progressive outline. Project components will be presented in class for feedback. Remedial Exam. 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.

Dismissal from a course and/or the college can result from unprofessional behavior. Final letter grades for the course will be based on the rubric in the Student Handbook.

## Course Schedule

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<b>Week/Topic</b>	<b>Readings</b>	<b>Due</b>
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<p><b>Week 1:</b> Course Introduction, OHP Frameworks and Philosophies of Science</p>	<p><i>Textbook Foreword and Preface</i> <i>Syllabus</i></p> <p><i>Introduction from:</i> Leka, S., Jain, A., &amp; World Health Organization. (2010). Health impact of psychosocial hazards at work: an overview.</p>	
<p><b>Week 2:</b> Burden, Need, and Impact</p> <p>Measuring Well-Being and Health Behaviors (Sleep, Diet, Exercise)</p>	<p><i>Chapter 6 and 4</i></p> <p>Felknor, S. A., Schulte, P. A., Schnorr, T. M., Pana-Cryan, R., &amp; Howard, J. (2019). Burden, need and impact: an evidence-based method to identify worker safety and health research priorities. <i>Annals of work exposures and health, 63</i>(4), 375-385.</p> <p>McHill, A. W., Phillips, A. J., Czeisler, C. A., Keating, L., Yee, K., Barger, L. K., ... &amp; Klerman, E. B. (2017). Later circadian timing of food intake is associated with increased body fat. <i>The American journal of clinical nutrition, 106</i>(5), 1213-1219.</p>	
<p><b>Week 3:</b> Measuring Depression, Anxiety, and Emotions</p>	<p><i>Chapters 5 and 8</i></p> <p><i>Rethorst, C. D., Wipfli, B. M., &amp; Landers, D. M. (2009). The antidepressive effects of exercise: a meta-analysis of randomized trials. Sports medicine, 39, 491-511.</i></p>	<p>Topic Choice (5 pts)</p>
<p><b>Week 4:</b> Measuring Work-Family Factors and Interpersonal Mistreatment at Work</p>	<p><i>Chapters 3 and 7</i></p>	
<p><b>Week 5:</b> Measuring Immune System Functioning, Cardiovascular Risk, and Stress</p>	<p><i>Chapter 1</i></p> <p>Kivimäki, M., &amp; Kawachi, I. (2015). Work stress as a risk factor for cardiovascular disease. <i>Current cardiology reports, 17</i>, 1-9.</p> <p>Marino, M., Li, Y., Pencina, M. J., D'Agostino Sr, R. B., Berkman, L. F., &amp; Buxton, O. M. (2014). Quantifying cardiometabolic risk using modifiable non-self-reported risk factors. <i>American journal of preventive medicine, 47</i>(2), 131-140.</p>	<p>Research Gap/Question (10 pts)</p>
<p><b>Week 6:</b> Measuring Engagement; Organizational Data</p>	<p><i>Chapter 10</i></p> <p>Dalton, B. A., &amp; Harris, J. S. (1991). A comprehensive approach to corporate health management. <i>Journal of Occupational Medicine, 33</i>, 338 -347.</p>	
<p><b>Week 7:</b> <b>Midterm Exam</b></p>		<p>Midterm Exam</p>

<b>Week 8:</b> Sampling and Survey Design	<i>No readings, lecture only</i>	
<b>Week 9:</b> Experimental and Quasi-Experimental Designs and Analyses	<i>Chapter 12</i>  Olson, R., Wipfli, B., Thompson, S. V., Elliot, D. L., Anger, W. K., Bodner, T., ... & Perrin, N. A. (2016). Weight control intervention for truck drivers: the SHIFT randomized controlled trial, United States. <i>American journal of public health, 106</i> (9), 1698-1706.	
<b>Week 10:</b> Longitudinal Research and Analysis	<i>Chapters 20</i>  Huang, Y. H., Sinclair, R. R., Lee, J., McFadden, A. C., Cheung, J. H., & Murphy, L. A. (2018). Does talking the talk matter? Effects of supervisor safety communication and safety climate on long-haul truckers' safety performance. <i>Accident analysis &amp; prevention, 117</i> , 357-367.	Research Design and Measures (20 pts)
<b>Week 11:</b> Event Sampling and Multi-Level Modeling and Analyses	<i>Chapter 13 and 18</i>	Analysis Plan (15 pts)
<b>Week 12:</b> Qualitative Methods	<i>Chapter 15</i>  Mabry, L., Parker, K. N., Thompson, S. V., Bettencourt, K. M., Haque, A., Luther Rhoten, K., ... & Olson, R. (2018). Protecting workers in the home care industry: workers' experienced job demands, resource gaps, and benefits following a socially supportive intervention. <i>Home Health Care Services Quarterly, 37</i> (3), 259-276.	
<b>Week 13:</b> Data Management, Pre-Analysis Plotting/Evaluation	<i>Sample Data Management Protocol</i>	Final Project Paper (50 pts)
<b>Week 14:</b> Future of OHP Methods	<i>Chapter 21</i>	
<b>Week 15:</b> <b>Final Exam</b>		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.*

**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 Center for Disability and Access (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 <https://safeu.utah.edu>

**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: <https://regulations.utah.edu/academics/6-410.php>