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Phone:	353-5006	Office Hours:	Immediately after class or by Appointment
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Course Description

This course is a doctoral level graduate seminar that focuses on critical conceptual and empirical issues facing training and development in the workplace. The course is structured around major training themes such as training needs assessment, design, evaluation and transfer as well as addressing key questions in the field regarding learning and transfer of learning to the job. The course is not designed to "train" trainers but to give participants an appreciation for the critical research issues that must be addressed in the training literature. To appreciate these issues, participants will also be involved in projects designed to simulate the practical issues and constraints in designing a training and development program.

Why a Course on Workplace Training in Psychology?

Many businesses are spending an increasing amount of money on learning activities and training to increase competitiveness and to improve services. Organizational Psychologists can play various roles relevant to improving the quality and effectiveness of employee training. These include: (1) the development of theoretical perspectives and models of what is meant by learning and transfer; (2) the derivation of testable models and the conduct of empirical research on the factors that impact learning during training and the transfer of training to the job; (3) the identification, design, delivery, evaluation, and improvement of training programs; and (4) the study of key issues beyond individual training to broader issues of team training and organizational change and development.

On a more personal note, I became interested in the development of people in the workplace after taking an undergraduate course in Industrial and Organizational Psychology. My interest in training and development continued through graduate school and has led to a major focus of my research and practice efforts since becoming a faculty member. My hope is that this class stimulates you thinking about developing people in the workplace and that you find a career doing what you enjoy as I have in working with training related issues in the workplace.

Course Readings

Assigned readings

Course Structure

The course is structured around core research questions as well as key principles for improving training effectiveness. You will gain an understanding of how individuals have researched issues of

training and development across Industrial and Organizational Psychology, Applied Cognitive Psychology, Education, and other related fields. This includes increasing your knowledge of what key criteria researchers have been interested in predicting (e.g., learning and transfer of learning) as well as the factors that impact knowledge and skill acquisition and its application to the job. You will be exposed to conceptual papers and rigorous empirical research. In addition, you will become involved in a project that calls for developing a training program. The project will enhance your skills in terms of putting together a coherent learning program for employees in an existing job. There is a separate handout that explains the steps in the project that are to be completed.

From a process perspective, this course is organized around principles of high participation and customization. This means that I, as an instructor, have the responsibility of organizing the class and helping to guide you to new levels of knowledge and skill relevant to the area of training and development. I strongly believe that people learn through taking the initiative and actively participating in shared endeavors. The course has embedded many opportunities for you to work with others in your class to gain greater levels of understanding about course content. As students in the class, you will be asked to take an active role in (1) facilitating/leading discussions; (2) linking new concepts/readings with past concepts/readings; and (3) helping with the process of documenting "best practice" principles and guidelines as the class progresses. It is as Rigoff & Associates (2003, Annual Review of Psychology) has discussed as an active inquiry process with a collaborative, horizontal participation structure with fluid responsibilities. The success of this journey depends on the motivation of all of us (me included!) to make it a success!

Course Expectations

Active participation in class discussions is expected – it is why you are here! You (and I) are expected to come to class prepared to discuss the assigned readings. I will often give you questions to think about as you are reading the material to prepare you for the class discussions. In addition, you are expected to complete many pre-class assignments. Of course, you are also expected to come to every class as we have much to learn! Feedback regarding participation is available upon request at any time. Do not be surprised if I come up to you at some point to encourage you to participate even more!

Key Course Assignments

1. Complete assignments and active participation. You will be asked to participate in many ways in the class. All students will (1) lead a discussion about a research paper(s) from readings for that week (facilitator role), (2) take the role of an "historian"(determine how material we are looking at one week links back to previously learned content) and (3) take on a guider role by helping document best practice principles and guidelines of the factors impacting learning and effective training and (4) asked to come prepared (or write up) to discuss the article you choose to focus on for the week and what it added to the article that all students read that week.

2. Complete a research paper (about 10 pages):

(a) take one of the meta-analyses from class (ones down before 2016) and look upstream at key papers that have cited the meta-analysis and write a paper that documents what was found in the meta-analysis and what we have learned since then (what reinforces findings of the meta-analysis, what might challenge a conclusion from the meta-analysis, what adds new knowledge that was not able to be tested in the meta-analysis etc.

OR

(b) take a paper that you liked from the course and look upstream at key papers that have cited that original paper and discuss what was found in the original paper, what has been found since that paper that reinforces what was found in the original paper, challenges the findings, adds to the findings etc.

3. Develop a practice oriented article (6 to 10 pages) that takes research findings and translates it into practical recommendations for improving training (from the meta-analyses or from a set of readings on a particular topic that would be of interest to training practitioners). The practical recommendation can come out of your research project (e.g., if you looked at error management research since the meta-analysis you could write up a practice oriented paper illuminating how to incorporate errors into training).

4. Training project. Participants will work as part of a two person team to complete assigned work relevant to developing a training program. The project will include conducting a needs assessment, writing training objectives, designing a training program, and developing methods of evaluation. A separate handout on the training project will be provided that explains the steps to be completed. Although you will be part of a "team", much of the work for the project can be completed on an individual basis.

Course Evaluation
The three parts of the class will be graded as follows:

Class Assignments	30%
Research Paper	20%
Practice Paper	20%
Training Project	30%

Course Topics and Readings

August 30   Introductions and Overview

Salas, E., Weaver, S. & Shuffler, M. (2012). Learning, training, and development in organizations. In S. Kozlowski (Ed.). The Oxford Handbook of Organizational Psychology. (peruse the reading – no need to read the paper, look at the figures, title heading etc. and determine 3 concepts/ideas you might be most interested in understanding more about through this class. Come prepared to discuss the following: based on content in this chapter I would like to learn more about xxxxx in this class…..)

Briner, R. & Rousseau, D.M. (2011). Evidence-based I/O Psychology: Not there yet. IO Psychology, 4, 3-22 (be prepared to discuss from your perspective, what is needed to move towards an evidence based field).

Deloitte Global Human Capital Trends (2017). Careers and learning – pages 29 – 36 (I sent you the whole thing if interested – only need to look at pages 29 – 36. (Be prepared to discuss what are the implications of this "trend" for your own career as well as what would be research that matters relevant to the trend)

Introduction to Training Project
Roles in class
Written assignments

September 11   What do we mean by Learning?

Anderson, L., & Sosniak, L. (1994). Bloom's taxonomy: A Forty year Perspective (Chapter 2). The University of Chicago Press, Chicago, ILL.
          Krathwohl, D.R. (2002). A revision of Bloom's taxonomy: An overview. *Theory into Practice*, *41*, 212-218.
          Shulman, L. (2002). Making differences: A table of learning. *Change*, 34, 37-44.
          Airasian, P.W., & Miranda, H. (2002). The role of assessment in the revised taxonomy. *Theory into Practice*, 41, 249-254.

Kraiger, K., Ford, J.K., & Salas, E. (1993). Integration of cognitive, behavioral, and affective theories of learning into new methods of training evaluation. Journal of Applied Psychology.
          Ford, J.K.,. Kraiger, K., & Merritt, S. (2007). Multidimensional training outcomes. S.W.J. Kozlowski & E. Salas (eds.). Learning,

training and development in organizations. LEA.

Bell, B., Tannenbaum, S., Ford, J.K., Noe, R., & Kraiger, K. (2017). 100 years of training and development research: What we know and where should go. Journal of Applied Psychology, 102, 305-323.

Salas, E., Cannon-Bowers, J. & Blickernsderfer, E. (1997). Enhancing reciprocity between training theory and practice: Principles, guidelines, and specifications. In J, K. Ford & Associates (Eds.), Improving training effectiveness in work organizations.

> Rousseau, D., & McCarthy, S. (2007). Educating managers from an evidence-based perspective. Academy of Management Learning and Education, 6, 94-101.

Ford, J.K., & Sinha, R. (2008). Advances in training evaluation research. In S. Cartwright and C. Cooper (ed.), The Oxford handbook of Personnel Psychology.

September 18   Thinking about Training Transfer
*Baldwin, T., & Ford, J.K. (l988). Transfer of training: A review and directions for future research. Personnel Psychology, 41, 63-105.

Ford, J.K., Baldwin, T.P., & Prasad, J. (in press). Transfer of training: The known and unknown. Annual Review of Organizational Psychology and Organizational Behavior.

> Baldwin, T. T., Ford, J. K., & Blume, B. D. (2009). Transfer of Training 1988-2008: An Updated Review and New Agenda for Future Research. In G.P. Hodgkinson and J.K. Ford (Eds.), *International Review of Industrial and Organizational Psychology* (Vol. 24, pp. xx-xx). Chichester, UK: Wiley.

Blume, B., Ford, J.K., Surface, E. & Olenick, J. (under review). A dynamic model of training transfer.

Yelon, S., Ford, J.K., & Bhatia, S. (2015). How trainees transfer what they have learned: Toward a taxonomy of use. Performance Improvement Quarterly.

> Choi, M., & Roulston, K. (2015). Learning transfer in practice: A qualitative study of medical professionals' perspectives. Human Resource Development Quarterly, 26, 249- 272

Ford, J.K., Yelon, S., & Billington, A. (2011). How much is transferred from training to the job: The 10% delusion as a catalyst for thinking about transfer. Performance Improvement Quarterly.

> Robinson & Robinson, Training for impact, Chapter 11 Behavioral results: Evaluating transfer of learning to the job

September 25   <u>Training Transfer: What do we know?</u>

Blume, B., Ford, J.K., Baldwin, T., & Huang, J. (2010). Transfer of training: A meta-analytic review, Journal of Management, *36*, 1065-1105.

Ford, J.K., Quinones, M.A., Sego, D.J., & Sorra, J.S. (1992). Factors affecting the opportunity to perform trained tasks on the job. Personnel Psychology, 45, 511-527.

> Smith-Jentsch, K.A., Salas, E. & Brannick, M.T. (2001). To transfer or not to transfer? Investigating the combined effects of trainee characteristics, team leader support, and team climate. Journal of Applied Psychology, 86, 279-292.

Tews, M., & Tracey, J. (2008). An empirical examination of posttraining on-the-job supplements for enhancing the effectiveness of interpersonal skills training. Personnel Psychology.

> Brown, T. C., & McCracken M. (2010). Which goals should participants set to enhance the transfer of learning from management development programmes? *Journal of General Management*, *35,* 27-44.

Huang, J. L., Blume, B. D., Ford, J. K., & Baldwin, T. T. (2015). A tale of two transfers: Disentangling maximum and typical transfer and their respective predictors. Journal of Business and Psychology, 30, 709-732. doi: 10.1007/s10869-014-9394-1

Huang, J., Ford, J.K., & Ryan, A.M. (2016). Ignored no more: Within-person variability enables better understanding of training transfer. Personnel Psychology, 69, 1-40.

October 2   <u>What Needs to be Learned?</u>

Goldstein & Ford (2002). Training in organizations. Chapter 3

Dipboye, R. (1997). Organizational barriers to implementing a rational model of training. In M. Quinones and A. Ehrenstein (Eds.). <u>Training for a</u>

<u>rapidly changing workforce.</u>

Campion, M., Fink, A., Ruggeberg, B., Carr, L., Phillips, G.,& Odman, R. (2011). Doing competencies well: Best practices in competency modeling. Personnel Psychology, 64, 225-262.

Clark, R., Feldon, D., Merienboer, J., Yates, K., & Early, S. (2006). Cognitive task analysis. Handbook on research on educational communications and technology (3rd ed.) Mahwah, NJ: LEA.
    Schaafstal, A., Schraagen, J., & Berlo, M. (2000). Cognitive task analysis and innovation of training: The case of structured troubleshooting. Human Factors, 42, 75-86.

Ford, J.K., & Wroten, S.P. (1984) Introducing new methods for conducting training evaluation and for linking training evaluation to program redesign. Personnel Psychology, 37, 651- 665.
    Ford, J.K., Smith, E., Sego, D., & Quinones (l993). The impact of individual and task experience factors on training needs assessment ratings. Journal of Applied Psychology, 78, 583-590.

October 9   <u>Planning for Instruction</u>
Goldstein & Ford, Chapter 4; pp. 98 – 110

Yelon, S., & Ford, J.K., (1999). Pursing a multidimensional view of transfer, Performance Improvement Quarterly, 12, 58-77

Gagne, R.M., Briggs, L., & Wager, W. (1992). Principles of instructional design. Chapter 7: Defining Performance Objectives
    Robinson & Robinson (1989). Training for impact. Chapters 6 and 7 (performance effectiveness, causes of performance gaps)

Donovan, J. & Radosevich, D. (1999). A meta-analytic review of the distribution of practice effect: Now you see it, now you don't. <u>Journal of Applied Psychology</u>, 84, 795-805.
    Winfred, A., Bennett, W., Edens, P., & Bell, S. (2003). Effectiveness of training in organizations: A meta-analysis of design and evaluation features. Journal of Applied Psychology, 88, 234-245.

Dunlosky, J., Rawson, K. et al (2013). Improving students' learning with effective learning techniques. Psychological Science in the Public Interest.

October 16   <u>Training Methods and Delivery: What do we know?</u>
Martin, B, Kolomitro, K., & Lam, T. (2014). Training methods: A review and analysis. Human Resource Development Review, 13, 11-35.

Sitzmann, T. (2011) A meta-analytic examination of the instructional effectiveness of computer based simulation games. Personnel Psychology, 64, 489-528.
> Cook, D.A. et al (2013). Comparative effectiveness of instructional design features in simulation-based education: Systematic review and meta-analysis. Medical Teacher.

Taylor, P., Russ-Eft, D., & Chan, D. (2005). A meta-analytic review of behavior modeling training. <u>Journal of Applied Psychology</u>, <u>90</u>, 692-709.

Keith, N., & Frese, M. (2008). Effectiveness of error management training: A meta-analysis. *Journal of Applied Psychology, 93,* 59-69.

Kalinoski, Z, Steele-Johnson, D., Peyton, E., et al (2012). A meta-analytic evaluation of diversity training outcomes. Journal of Organizational Behavior, 34, 1076-1104

Brown, & Gerhardt, M. (2002). Formative evaluation: An integrative practice model and case study. Personnel Psychology, 55, 951-983.
> Ritzmann, S., Hagemann,V., & Kluge, A. (2014). The training evaluation inventory (TEI) – evaluation of training design and measurement of training outcomes for predicting training success. Vocations and Learning, 7, 41-73.

October 23   October 23   Active Learning Processes

Bell, B.S., & Kozlowski, S.W.J. (2008). Active learning: Effects of core training design elements on self regulatory processes, learning, and adaptability. Journal of Applied Psychology, 93, 296-316.
> Taylor, J., & Ku, H. (2011). Measuring active learning to predict course quality. Performance Improvement Quarterly, 24, 31-48.

Kirschner, P.A., Sweller, J., & Clark, R.E. (2006). Why minimal guidance during instruction does not work: An analysis of the failure of constructivist, discovery, problem-based, experiential and inquiry based teaching. Educational Psychologist, 41, 75-86.
> Lohman, M. (2002). Cultivating problem solving skills through

problem based approaches to professional development. Human Resource Development Quarterly, 13, 243-256.

Meyer, R. (2002). Problem solving skills through problem based approaches to professional development. Human Resource Development Quarterly, 13, 263-270.

Ford, J.K., Smith, E.M., Weissbein, D.A., Gully, S.M., & Salas, E. (1998). Relationships of goal orientation, metacognitive activity and practice strategies with learning outcomes and transfer. Journal of Applied Psychology, 83, 218-233.

Hughes, M., Day, E. et al (2013). Learner controlled practice difficulty in the training of a complex task. JAP, 98, 80 – 98.

Adler, A., Bliese, P., et al. (2015). Mental skills training with basic combat training soldiers: A group randomized trial. Journal of Applied Psychology, 100, 1752-1764.

| October 30 | Motivational Issues and Creating Learning States |

*Ford, J.K., & Oswald, F. (2003). Understanding the dynamic learner: Linking personality traits, learning situations, and individual behavior. In Barrick & Ryan (eds.). Personality and Work.

*Noordzu, G., Hooft, E., Mierlo, H. et al (2013). The effects of a learning-goal orientation training on self-regulation: A field experiment among unemployed job seekers. Personnel Psychology, 66, 723-755.

Weissbein, D. Huang, J., Ford, J.K., & Schmidt, A. (2010). Influencing learning states to enhance trainee motivation and improve training transfer. Journal of Business and Psychology

Colquitt, J.A., LePine, J.A., & Noe, R.A. (2000). Trainee attributes and attitudes revisited: A meta-analytic structural equation modeling analysis of research on training motivation. Journal of Applied Psychology

Klein HJ, Noe RA, Wang C. (2006). Motivation to learn and course outcomes: the impact of delivery mode, learning goal orientation, and perceived barriers and enablers. *Pers. Psychol.* 59:665–702

Bell, B., and Ford, J.K. (2007). Reactions to skill assessment: The forgotten factor in explaining motivation to learn. Human Resource Development Quarterly, 18, 33-62.

Bauer, K., Orvis, K., Ely, K., & Surface, E. (2015). Re-examination of

motivation in learning contexts: Meta-analytically investigating the role type of motivation plays in the prediction of key training outcomes. Journal of Business Psychology

November 6   Pre and Post Training Factors

Dahling, J., Richie-Taylor, S., Chau, S., & Dwight, S. Does coaching matter? A multilevel model linking managerial coaching skill and frequency to sales goals attainment. Personnel Psychology, 69, 863-894.

Friedman, S., & Ronen, S. (2015). The effect of implementation intentions on transfer of training. European Journal of Social Psychology, 45, 409-416.
    Lancaster, S., Milia, L, & Cameron, R. (2012). Supervisor behaviors that facilitate training transfer. Journal of Workplace Learning.

Steele-Johnson, Narayan, A., Delgado, K., & Cole, P. (2010). Pretraining influences on readiness to change dimensions. Journal of Applied Behavioral Science.
    Massenberg, A., Schulte, E., & Kauffeld, S. (2016). Never too early: Learning transfer system factors affecting motivation to transfer before and after training programs.

Tannenbaum, S., & Cerasoli, C. (2013). Do team and individual debriefs enhance performance: A meta-analysis. Human Factors.

Sparr, J. Knipfer, K., & Willems, F. (2017). How leaders can get the most out of formal training: The significance of feedback-seeking and reflection as informal learning behaviors. Human Resource Development Quarterly.

November 13   Team training

Dierdorff, E.C., & Ellington, J.K. (in press). Team training: Knowing much but needing to know much more. In K. Brown (Ed.), The Cambridge Handbook of Workplace Training and Employee Development.
.
Marks, M., Sabella, M., Burke, C., & Zaccaro, S. (2002). The impact of cross training on team effectiveness. Journal of Applied Psychology, 87, 3-13.
    Dierdorff, E., & Ellington, J. (2012), Members matter in team training: Multilevel and longitudinal relationships between goal orientation, self-regulation, and team outcomes. Personnel Psychology, 65, 661-705
.

Mathieu, J., & Tesluk, P. (2010). A multilevel perspective on training and development effectiveness. In S. Kozlowski & E. Salas (eds.). Learning, training and development in organizations.

Chen, G., Thomas, B., & Wallace, J. (2005). A multilevel examination of the relationships among training outcomes, mediating regulatory processes, and adaptive performance. Journal of Applied Psychology, 90, 827-841.

Hughes, A., Gregory, M., Joseph, D. et al (2016). Saving lives: A meta-analysis of team training in healthcare. Journal of Applied Psychology, 101, 1266-1304.

Salas, E., DiazGranados, D., Klein, C. et al (2008). Does team training improve team performance: A meta-analysis. Human Factors.

November 20   Developing Leaders   **Training project Due**

Taylor, P., Russ-Eft, D., & Taylor, H. (2009). Transfer of management training from alternative perspectives. JAP, 94, 104-121.

Seibert, S., Sargent, L., Kraimer, M. & Kiazad, K. (2017). Linking developmental experiences to leader effectiveness and promotability. Personnel Psychology, 70, 357-397.

McHenry, J., & McKenna, D. (2015). Turning experience into expertise. In C. McCauley and M. McCall (eds.), Using experience to develop leadership talent. Jossey-Bass.

Dragoni, L, & Park, H., et al (2014). Show and tell: How supervisors facilitate leader development among transitioning leaders. JAP, 99, 66-86.

Courtright, S., Colbert, A., & Choi, D. (2014). Fired up or burned out? How developmental challenges differentially impacts leader behavior, JAP, 99, 681-696.

Lacerenza, C., Reyes, D., Marlow, S. et al (2017). Leadership training design, delivery, and implementation: A meta-analysis. Journal of Applied Psychology.

November 27   Developing Deep Specialization of Skills: Experience and Instruction

Ericsson, K. (2008). The influence of experience and deliberate practice on the development of superior expert performance. Chapter 38.

McGaghie WC, Issenberg SB, Cohen ER, Barsuk JH, Wayne DB. Does simulation-based medical education with deliberate practice yield better results than traditional clinical education? a meta-analytic comparative review of the evidence. Acad Med. 2011;86(6):706-711

Fadde, P.J., & Klein, G.A. (2010). Deliberate performance: Accelerating expertise in natural settings. Performance Improvement, 49, 5-15.

Ford, J.K., Webb, J., & Showler, M. (in press). Building deep specialization through intentional learning activities. In K. Brown (ed.), Cambridge Handbook of Training and Development.
.
Hoffman et al (2014). Accelerating expertise – chapter 9 – demonstration of accelerated expertise.

Noe, R.A., Clarke, Al, & Klein, H. (2014). Learning in the twenty-first century workplace. Annual Review of Organizational Psychology.

December 4   <u>Perspectives to</u> <u>Learning and Beyond</u>   **RESEARCH PAPER DUE**

Kraiger, K. (2008). Third generation learning. Industrial and Organizational Psychology: Perspectives on Science and Practice.

Ford, J.K. (2008). Transforming our Models of Learning and Development: How Far Do We Go? Industrial and Organizational Psychology: Perspectives on Science and Practice.

Sung, S.Y., & Choi, J.N. (2013). Do organizations spend wisely on employees? Effects of training and development investments on learning and innovation in organizations. Journal of Organizational Behavior, 35, 393-412.

Beer, M., Finstrom, M., & Schrader, D. (2016). Why leadership training fails – and what to do about it (The great training robbery). Harvard Business Review.

Marsick, V. & Watkins, K. (2003). Demonstrating the value of an organization's learning culture. Advances in Developing Human Resources, 5, 132-151.

Yoon, S. & Lim, D. (2009). Beyond the learning process and toward the knowledge creation process: Linking learning and knowledge in the supportive learning culture. Performance Improvement Quarterly, 22, 49-69.

December 11   Course Recap   **PRACTICE PAPER DUE**

Salas, E., Tannenbaum, S., Kraiger, K., & Smith-Jentsch (2012). The
science of training and development in organizations: What matters in
practice. APS in the Public Interest.

Baldwin, T., Ford, J.K., & Blume, B. (2017). The state of transfer of training
research: Moving toward more consumer centric inquiry. Human Resources
and Development Quarterly, 28, 17-28.

     Evidenced Based Practice Revisited
     Presentation on Practice Papers