



**PSYC 491**

**Psychological Principles for Instruction**

**Spring 2025/A02/22781/1.5 units**

Spring/2025 (January 6 – April 3)

Monday/Thursday 1:00-2:20pm

FIA 104

*We acknowledge and respect the Ləkʷəŋən (Songhees and Esquimalt) Peoples on whose traditional territory the university stands and Ləkʷəŋən and WSÁNEĆ peoples whose historical relationships with the land continue to this day.*

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LMS	Brightspace & Teams

## Course Specific Information

### Course Description

Psychological science has much to contribute to enhancing teaching and learning across a range of educational contexts. Drawing on contemporary research, this course will explore evidenced-based principles from psychology that inform the design of effective and responsive learning environments. The course will be of interest to students who are interested in (a) applying psychological science to instructional design or assessment, (b) developing instructional tools and interventions, (c) pursuing careers related to education or instructional design, or (d) contributing to research in the psychology of education. This is a good course for future teaching assistants.

**Inquiry Course:** This course is designed to be inquiry oriented. Students will work in small inquiry teams to solve instructional problems and questions using contemporary psychological research. Inquiry projects will include individually graded components and collaborative components. Students will be expected to present and share their solutions with each other and to showcase those solutions for university instructors. Throughout the course, Dr. Hadwin will help students consult with subject matter experts.

#### Examples of Inquiry Topics:

1. **Beliefs about Learning:** Addressing misconceptions about learning and promoting growth mindsets.
2. **Prior Knowledge and Conceptual Change:** Bridging gaps in prior knowledge and facilitating conceptual change.
3. **Cognition and Learning Skills:** Enhancing cognitive processes and learning strategies.
4. **Studying, Rehearsal, and Retrieval:** Supporting and coaching effective studying and retrieval practices.
5. **Motivation and Intrinsic Interest:** Creating environments that foster intrinsic motivation.
6. **Metacognition and Self-regulation:** Fostering self-regulated learning, and metacognitive skills.
7. **Social Context and Social Belongingness:** Promoting social inclusion and a sense of belonging.
8. **Feedback and Assessment:** Leveraging formative and summative assessment to improve learning.
9. **Mental Health and Well-being:** Supporting mental health and psychological well-being in instructional contexts
10. **Equity, diversity and Inclusion:** Decolonizing instructional environments to create more inclusive learning environments

### Course Prerequisites

- Must have completed PSYC 300A

## Course Objectives

- Leverage psychological research to solve real world instructional challenges
- Explain key psychological principles informing instructional and educational practices
- Summarize empirical evidence to support or explain key principles informing the field
- Critically examine and discuss research findings and their implications for practice
- Generate evidence-based solutions to answer instructional questions
- Develop critical research competencies for refining literature searches, synthesizing research findings, and presenting findings in scholarly written briefs
- Present evidence-based solutions for instructional challenges for instructors who may have no knowledge of psychological research and principles.

## Course requirements and evaluation

Individual Inquiry Assignments		65%
Library search assignment	Jan 17 by 8pm	5%
Literature Brief Assignment*	Feb 14 by 8pm	25%
In class open book exam*	Feb 24 & 27 in class	25%
Reflection on your learning and teamwork	April 4 by 8pm	10%
Collaborative Inquiry Team Assignments		35%
Inquiry Team Contract	Jan 20	5%
Pilot presentation feedback report and action plan	Mar 21 or 28	5%
Collaborative Project & Showcase*	Mar 31 or Apr 3	25%

Assignments marked with \* are required components of the course. Failure to complete any of these three assignments will result in a grade of N. N is a failing grade and factors into GPA as a value of 0

## Life Happens Pass (PSYC 491)

I recognize that life can sometimes throw unexpected challenges your way. Whether it's illness, unexpected family responsibilities, or other unforeseen circumstances, I understand that such events can disrupt your best-laid plans. To support you during such times, you can complete the form below to get a "Life Happens" Free Pass for 48 hr extension or a class absence. <https://forms.office.com/r/v5cA4Mrxhj>

## Course Schedule/Design

Date	Objectives/Activities	Deliverables
Jan 6/9	<b>Objectives</b> Orientation to instructional psychology and the course <b>Activities:</b> <ul style="list-style-type: none"> <li>• Introduction to course and the APA principles</li> <li>• Inquiry group formation, topic selection, and initial research</li> </ul>	<b>Deliverables:</b> Topic choice and inquiry teams formed
Jan 13/16	Identify critical questions to be answered Identify subject matter experts Identify foundational papers, chapters, and reviews (meta-analyses and meta-syntheses)	<b>Deliverables:</b> Inquiry team contracts (5%) Library search assignment (5%)
Exploring the research – Evidence-based approaches to our inquiry questions		
Jan 20/23	<b>Objectives:</b> Begin literature review focusing on foundational theories and principles of educational psychology. <b>Activities:</b> <ul style="list-style-type: none"> <li>• Guided reading on foundational theories (e.g., behaviorism, cognitivism, constructivism).</li> <li>• Group discussions and summarization of key concepts.</li> </ul>	<b>Deliverables:</b> Summary of foundational theories informing this issue.

Jan 27/30	<b>Objectives:</b> Review of relevant meta-analyses and meta-syntheses. <b>Activities:</b> <ul style="list-style-type: none"> <li>• Guided reading articles</li> <li>• Group discussions and summarization of key concepts.</li> </ul>	<b>Deliverables:</b> Summary of review papers.
Feb 3/6	<b>Objectives:</b> Deep dive into the research relevant to each group's topic. <b>Activities:</b> <ul style="list-style-type: none"> <li>• In-depth reading on assigned theories and recent research.</li> <li>• Group meetings to discuss findings and start synthesizing information.</li> </ul>	<b>Deliverables:</b> Annotated bibliography started
Feb 10/13	<b>Objectives:</b> Deep dive into the research relevant to each group's topic. <b>Activities:</b> <ul style="list-style-type: none"> <li>• In-depth reading on assigned theories and recent research.</li> <li>• Group meetings to discuss findings and start synthesizing information.</li> </ul>	<b>Deliverables:</b> Annotated bibliography completed Literature brief assignment (25%)
Feb 17-20		
Feb 24-27	Open book midterm exam Consultations with Subject matter experts	In class open book midterm exam (25%)
<b>Translating theory to practice</b>		
Mar 3-6	<b>Objectives:</b> Begin designing the structure and content of a workshop for instructors. <b>Activities:</b> <ul style="list-style-type: none"> <li>• Outline the workshop structure (e.g., introduction, main activities, conclusion).</li> <li>• Develop detailed content for each section of the workshop.</li> </ul>	<b>Deliverables:</b> Workshop outline and draft content.
Mar 10-14	<b>Objectives:</b> Create materials needed for the workshop (e.g., presentations, handouts, activities). <b>Activities:</b> <ul style="list-style-type: none"> <li>• Design and create visual aids, handouts, and interactive activities.</li> <li>• Peer review of materials to ensure clarity and effectiveness.</li> </ul>	<b>Deliverables:</b> Completed workshop materials.
Mar 17-20	<b>Objectives:</b> Pilot test the workshop and gather feedback. <b>Activities:</b> <ul style="list-style-type: none"> <li>• Conduct a trial run of the workshop with peers or a small group of instructors.</li> <li>• Collect feedback on content, delivery, and engagement.</li> </ul>	<b>Deliverables:</b> Feedback report & revision plan (week 1 presenters)
Mar 24-27	<b>Objectives:</b> Pilot test the workshop and gather feedback. <b>Activities:</b> <ul style="list-style-type: none"> <li>• Conduct a trial run of the workshop with peers or a small group of instructors.</li> <li>• Collect feedback on content, delivery, and engagement.</li> </ul>	<b>Deliverables:</b> Feedback report & revision plan (week 2 presenters)
Mar 31-Apr 3	Final presentations – Present workshops for instructors	Final workshop and participant feedback (25%) Reflection on your learning and teamwork (10%)

## Sample Reading Clusters

1. We will work together to identify current research and articles related to the instructional challenges each learning community identifies.
2. Students should expect to read and synthesize readings on a weekly basis.
3. *This is a tentative reading list. The final reading list will be posted in Brightspace*

Topic and Reading cluster per topic
<b>Introduction to the APA principles from psychology</b> <ol style="list-style-type: none"> <li>1. APA 20 principles American Psychological Association, Coalition for Psychology in Schools and Education. (2015). "Top 20 principles from psychology for preK-12 teaching and learning." Retrieved from <a href="http://www.apa.org/ed/schools/cpse/top-twenty-principles.pdf">http://www.apa.org/ed/schools/cpse/top-twenty-principles.pdf</a></li> <li>2. First peoples principles of learning: <a href="https://firstpeoplesprinciplesoflearning.wordpress.com/">https://firstpeoplesprinciplesoflearning.wordpress.com/</a></li> <li>3. What is educational psychology <a href="https://www.youtube.com/watch?v=Nm1EXUm023s">https://www.youtube.com/watch?v=Nm1EXUm023s</a></li> </ol>
<b>Beliefs about learning</b> <ol style="list-style-type: none"> <li>1. Yeager, D. S., &amp; Dweck, C. S. (2012). Mindsets that promote resilience: When students believe that personal characteristics can be developed. <i>Educational Psychologist</i>, 47, 302-314. [<a href="#">Growth Mindsets</a>]</li> <li>2. Kate, Talsma., Benjamin, Schüz., Benjamin, Schüz., Ralf, Schwarzer., Ralf, Schwarzer., Kimberley, Norris. (2017). I believe, therefore I achieve (and vice versa): A meta-analytic cross-lagged panel analysis of self-efficacy and academic performance. <i>Learning and Individual Differences</i>, 61:136-150. doi: 10.1016/J.LINDIF.2017.11.015 [<a href="#">Self-Efficacy Beliefs</a>]</li> <li>3. Oschatz, K. (2015). Epistemological Beliefs and Motivation. In <i>International Encyclopedia of the Social &amp; Behavioral Sciences: Second Edition</i> (pp. 887–893). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-08-097086-8.26093-5">https://doi.org/10.1016/B978-0-08-097086-8.26093-5</a> [<a href="#">Epistemological Beliefs</a>]</li> </ol>
<b>Prior Knowledge and Conceptual Change</b> <ol style="list-style-type: none"> <li>1. Bittermann, A., McNamara, D., Simonsmeier, B. A., &amp; Schneider, M. (2023). The Landscape of Research on Prior Knowledge and Learning: a Bibliometric Analysis. <i>Educational Psychology Review</i>, 35(2), 58. <a href="https://doi.org/10.1007/s10648-023-09775-9">https://doi.org/10.1007/s10648-023-09775-9</a></li> <li>2. van Kesteren, M. T. R., Rijpkema, M., Ruiter, D. J., Morris, R. G. M., &amp; Fernández, G. (2014). Building on Prior Knowledge: Schema-dependent Encoding Processes Relate to Academic Performance. <i>Journal of Cognitive Neuroscience</i>, 26(10), 2250–2261. <a href="https://doi.org/10.1162/jocn_a_00630">https://doi.org/10.1162/jocn_a_00630</a></li> <li>3. Sinatra, G. M., Kienhues, D., &amp; Hofer, B. K. (2014). Addressing Challenges to Public Understanding of Science: Epistemic Cognition, Motivated Reasoning, and Conceptual Change. <i>Educational Psychologist</i>, 49(2), 123–138. <a href="https://doi.org/10.1080/00461520.2014.916216">https://doi.org/10.1080/00461520.2014.916216</a></li> </ol>
<b>Cognition and Learning Skills</b> <ol style="list-style-type: none"> <li>1. Bjork, R. A., Dunlosky, J., &amp; Kornell, N. (2013). Self-Regulated Learning: Beliefs, Techniques, and Illusions. <i>Annual Review of Psychology</i>, 64(1), 417–444. <a href="https://doi.org/10.1146/annurev-psych-113011-143823">https://doi.org/10.1146/annurev-psych-113011-143823</a></li> <li>2. Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., &amp; Willingham, D. T. (2013). What works? What doesn't. <i>Scientific American</i> 24(4), 46–53.</li> <li>3. Dunlosky, J., Rawson, K. A., Marsh, E. J., Nathan, M. J., &amp; Willingham, D. T. (2013). Improving students' learning with effective learning techniques: Promising directions from cognitive and educational psychology. <i>Psychological Science in the Public Interest</i>, 14, 4-5</li> </ol>
<b>Studying, rehearsal and retrieval</b> <ol style="list-style-type: none"> <li>1. Carpenter, S. K., Cepeda, N. J., Rohrer, D., Sean H. K. Kang, &amp; Pashler, H. (2012). Using spacing to enhance diverse forms of learning: Review of recent research and implications for instruction. <i>Educational Psychology Review</i>, 24, 369-378.</li> <li>2. Kapler, I. V., Weston, T., &amp; Wiseheart, M. (2015). Spacing in a simulated undergraduate classroom: Long-term benefits for factual and higher-level learning. <i>Learning and Instruction</i>, 36, 38-45.</li> <li>3. Chan, J. C., Meissner, C., &amp; Davis, S. (2018). Retrieval potentiates new learning: A theoretical and meta-analytic review. <i>Psychological Bulletin</i>, 144, 1111-1146. 4 Roediger III, H. L., &amp; Karpicke, J. D. (2006). Test-enhanced learning: Taking memory tests improves long-term retention. <i>Psychological Science</i>, 17, 249-255.</li> </ol>
<b>Motivation and Intrinsic Interest</b> <ol style="list-style-type: none"> <li>1. Urhahne, D., &amp; Wijnia, L. (2023). <i>Theories of Motivation in Education: An Integrative Framework</i>. 35, 45. <a href="https://doi.org/10.1007/s10648-023-09767-9">https://doi.org/10.1007/s10648-023-09767-9</a></li> </ol>

<ol style="list-style-type: none"> <li>2. Anderman, E. M., &amp; Gray, D. L. (2015). Motivation, Learning, and Instruction. In <i>International Encyclopedia of the Social &amp; Behavioral Sciences: Second Edition</i> (pp. 928–935). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-08-097086-8.26041-8">https://doi.org/10.1016/B978-0-08-097086-8.26041-8</a></li> <li>3. Miele, D. B., Rosenzweig, E. Q., &amp; Browman, A. S. (2023). Motivation. In <i>Handbook of Educational Psychology</i> (pp. 191–218). Taylor and Francis. <a href="https://doi.org/10.4324/9780429433726-12">https://doi.org/10.4324/9780429433726-12</a></li> <li>4. Renninger, K. A., &amp; Pozos-Brewer, R. K. (2015). Interest, Psychology of. In <i>International Encyclopedia of the Social &amp; Behavioral Sciences: Second Edition</i> (pp. 378–385). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-08-097086-8.26035-2">https://doi.org/10.1016/B978-0-08-097086-8.26035-2</a></li> </ol>
<b>Metacognition and Self-regulation</b>
<ol style="list-style-type: none"> <li>1. Veenman, M. V. J. (2015). Teaching for Metacognition. In <i>International Encyclopedia of the Social &amp; Behavioral Sciences: Second Edition</i> (pp. 89–95). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-08-097086-8.92136-6">https://doi.org/10.1016/B978-0-08-097086-8.92136-6</a></li> <li>2. Soderstrom, N. C., &amp; Bjork, R. A. (2020). Learning versus performance: An integrative review. <i>Perspectives on Psychological Science</i>, 15(6), 1245-1263.</li> <li>3. Panadero, E. (2017). A review of self-regulated learning: Six models and four directions for research. <i>Frontiers in Psychology</i>, 8, 422</li> <li>4. Bjork, R. A., Dunlosky, J., &amp; Kornell, N. (2013). Self-regulated learning: Beliefs, techniques, and illusions. <i>Annual Review of Psychology</i>, 64, 417-444.</li> <li>5. Zimmerman, B. J. (2015). Self-Regulated Learning: Theories, Measures, and Outcomes. In <i>International Encyclopedia of the Social &amp; Behavioral Sciences: Second Edition</i> (pp. 541–546). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-08-097086-8.26060-1">https://doi.org/10.1016/B978-0-08-097086-8.26060-1</a></li> </ol>
<b>Social Context and Social Belongingness</b>
<ol style="list-style-type: none"> <li>1. Baumeister, R. F., &amp; Leary, M. R. (1995). The need to belong: desire for interpersonal attachments as a fundamental human motivation. <i>Psychological Bulletin</i>, 117, 497-529.</li> <li>2. Walton, G. M., &amp; Cohen, G. L. (2007). A question of belonging: race, social fit, and achievement. <i>Journal of Personality and Social Psychology</i>, 92, 82-96. 5</li> <li>3. Good, C., Rattan, A., &amp; Dweck, C. S. (2012). Why do women opt out? Sense of belonging and women's representation in mathematics. <i>Journal of Personality and Social Psychology</i>, 102, 700-717.</li> <li>4. Freeman, T. M., Anderman, L. H., &amp; Jensen, J. M. (2007). Sense of belonging in college freshmen at the classroom and campus levels. <i>Journal of Experimental Education</i>, 75, 203-220.</li> </ol>
<b>Feedback and Assessment</b>
<ol style="list-style-type: none"> <li>1. Hattie, J., &amp; Timperley, H. (2007). The power of feedback. <i>Review of Educational Research</i>, 77, 81–112</li> <li>2. Nicol, D., &amp; MacFarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. <i>Studies in Higher Education</i>, 31(2), 199–218. <a href="https://doi.org/10.1080/03075070600572090">https://doi.org/10.1080/03075070600572090</a></li> <li>3. Winstone, N. E., Nash, R. A., Parker, M., &amp; Rowntree, J. (2017). Supporting Learners' Agentic Engagement with Feedback: A Systematic Review and a Taxonomy of Recipience Processes. <i>Educational Psychologist</i>, 52(1), 17–37. <a href="https://doi.org/10.1080/00461520.2016.1207538">https://doi.org/10.1080/00461520.2016.1207538</a></li> <li>4. Brookhart, S. M. (2018). Appropriate criteria: Key to effective rubrics. <i>Frontiers in Education</i>, 3, 22.</li> <li>5. Wollenschläger, M., Hattie, J., Machts, N., Möller, J., &amp; Harms, U. (2016). What makes rubrics effective in teacher-feedback? Transparency of learning goals is not enough. <i>Contemporary Educational Psychology</i>, 44, 1-11</li> </ol>
<b>Mental health and well-being</b>
<ol style="list-style-type: none"> <li>1. Frenzel, A. C., Goetz, T., &amp; Stockinger, K. (2023). Emotions and emotion regulation. In <i>Handbook of Educational Psychology</i> (pp. 219–244). Taylor and Francis. <a href="https://doi.org/10.4324/9780429433726-13">https://doi.org/10.4324/9780429433726-13</a></li> <li>2. Harley, J. M., Pekrun, R., Taxer, J. L., &amp; Gross, J. J. (2019). Emotion Regulation in Achievement Situations: An Integrated Model. <i>Educational Psychologist</i>, 54(2), 106–126. <a href="https://doi.org/10.1080/00461520.2019.1587297">https://doi.org/10.1080/00461520.2019.1587297</a></li> <li>3. Kim, M. Y., Bigman, Y., &amp; Tamir, M. (2015). Emotional Regulation. In <i>International Encyclopedia of the Social &amp; Behavioral Sciences: Second Edition</i> (pp. 452–456). Elsevier Inc. <a href="https://doi.org/10.1016/B978-0-08-097086-8.25055-1">https://doi.org/10.1016/B978-0-08-097086-8.25055-1</a></li> <li>4. Huang, Y. (Felicia), &amp; Chui, H. (2023). Promoting adolescent subjective well-being: a classroom environment approach. In <i>Learning Environments Research</i>. Springer Science and Business Media B.V. <a href="https://doi.org/10.1007/s10984-023-09488-4">https://doi.org/10.1007/s10984-023-09488-4</a></li> </ol>
<b>Equity, diversity and inclusion</b>
<ol style="list-style-type: none"> <li>1. Kumar, R., &amp; Decuir-Gunby, J. (2022). What is the role of race in educational psychology? A review of research in <i>Educational Psychologist</i>. <a href="https://doi.org/10.1080/00461520.2022.2137804">https://doi.org/10.1080/00461520.2022.2137804</a></li> </ol>

2. Kumar, R., Zusho, A., & Bondie, R. (2018). *Weaving Cultural Relevance and Achievement Motivation into Inclusive Classroom Cultures* *Weaving Cultural Relevance and Achievement Motivation into Inclusive Classroom Cultures. Educational Psychologist*, <https://doi.org/10.1080/00461520.2018.1432361>
3. Schutz, P. A. (2020). *Race focusing and reimagining research: Where do we go from here?* <https://doi.org/10.1016/j.cedpsych.2020.101871>.