

## Course Syllabus

### **Teaching Objectives:**

Content and instruction will be provided on:

- Established instructional design theories and models.
- Issues related to controversial uses of established instructional design models.
- Approaches to instructional design that have been proposed as alternatives to the established instructional design models.
- Moral and ethical implications of instructional stances and choices in the design and development in the adult and postsecondary sectors.
- Core aspects of instructional design process: needs analysis, design, development, implementation, evaluation.
- Developing research projects related to issues in instructional design.

**Transferable Skills:** *Self awareness, evaluation, reflection, continuing teacher development, independent thinking, synthesis of details*

**Teaching Strategies:** In class lectures/presentations, self-directed learning, case studies, in-class discussion, demonstration, group work, concept mapping, active observation, advisory group, external observers, gallery of learning

### **SECTION A: Instructional Design Theories and Models**

**Instructional Design: The Foundations** There are a lot of people who call themselves instructional designers or educational developers, pedagogical experts/consultants, curriculum designers, etc. But are they really? What exactly is an instructional designer – and instructional design? Are there differences between these descriptors? Can anyone call themselves instructional designers? Why do so many people want to be in the field?

The field of instructional design has become one of the top twenty ‘in demand’ jobs over the last decade. While there are a variety of reasons for the growing demand, the primary pressure stems from the increasing demand for accountability from the general public and government of the day with respect to publically funded educational offerings, alongside an increasing number of professional programs that require accreditation. This has resulted in a need to hire individuals who know how to design instruction where there is accountability for what is taught and accountability for what is learned. An effective approach to providing this kind of accountability is the use of systematic design of instruction models and postsecondary educators with an instructional design background. However, it is imperative that instructional designers are mindful of the criticisms of the systematic instructional design process and products. It is only through

informed decision making that instructional designers can navigate the ethical and moral issues that will confront them in their everyday practices. Different philosophical orientations and learning theories result in different styles of teaching, learning, and by *de facto*, designing instruction for learning. This section of the course moves from the ‘science of instructional design’ to the ‘art of instructional design’.

**The intent of this section** of the course is to provide course participants with an understanding of (1) **foundations and history of instructional design**, (2) **instructional design as a profession and a field of study**, (3) different ways of developing and designing instruction **based on prevalent theories and models**, (4) **critiques of prevalent theories and models**, (5) **alternative theories and models**, and (6) the **ethics associated with design choices**.

**Learning outcomes:** Students will be able (or better able) to...

- Describe and delineate components of established instructional design theories and models.
- Contrast, compare, and critically appraise established instructional design models in relation to their suitability in diverse contexts.
- Identify and describe approaches to instructional design that have been proposed as alternatives to the established instructional design models.
- Identify, describe, and discuss criticisms and controversies related to the use of established instructional design models.
- Analyze and evaluate ethical implications of instructional stances and choices in the design and development of teaching and learning in the postsecondary sector.

## **SECTION B: The Process of Instructional Design**

- a) **Implementing systematic instructional design** involves a stepwise process. Learning instructional design principles involves active practice – actually doing instructional design – while reflecting on choices made along the way. In this section, students will work with a partner group, including subject-matter experts (SMEs) to design an instructional program, course, or module. This section follows your design process, moving from needs analysis, to design (including teaching and assessment strategies), development, implementation, and evaluation. Course materials and instruction will support this process by integrating relevant research and theories for evidence-based practice. Students are required to lead discussions on ethical or practical issues encountered during the design process.

**The intent of this section** of the course is to develop and amalgamate the art and science of instructional design and to support students in developing their role as evidence-based instructional design practitioners.

**Learning outcomes:** Students will be able (or better able) to...

- Articulate the steps involved in the systematic design of instruction.
- Describe strategies used in teaching and assessment, with reference to the adult and postsecondary sectors.
- Describe and evaluate research findings and theory relevant to instructional design.
- Design and develop a learning event using one of the instructional design models covered in the course.

### Schedule of Activities

<p><b>1. Jan 7: Online</b></p> <ul style="list-style-type: none"> <li>• Introductions</li> <li>• Overview of the course</li> <li>• History of ID</li> <li>• Systematic Design of Instruction introduction/ADDIE</li> </ul>	<p><b>Readings:</b> Brown &amp; Green, CH 1 Reiser &amp; Dempsey, CH 1, 3 and 22</p> <p>Reflective Questions to consider while reading:</p> <ul style="list-style-type: none"> <li>• What might be some of the continued residual impacts of ID's history with the military?</li> <li>• In other jurisdictions, the label 'instructional designer' has been changed to educational developer, educational consultant, curriculum planner, etc. What are your thoughts on what the field should be labelled? Why? Does the label have an impact on the instructional design?</li> <li>• In the last two decades, educational technology and instructional design have been linked tightly in the US. Do you agree with this connection?</li> </ul>
<p><b>2. Jan 14: In-class</b> <b>Core models/theories</b></p> <ul style="list-style-type: none"> <li>• Theories</li> <li>• Models - ISD <ul style="list-style-type: none"> <li>○ Dick, Carey &amp; Carey</li> <li>○ Kemp</li> </ul> </li> <li>• Models - Instructional <ul style="list-style-type: none"> <li>○ Merrill's first principles</li> </ul> </li> </ul>	<p><b>Readings:</b> Reiser &amp; Dempsey, CH 2 and 8 Branch, R. M., &amp; Kopcha, T. J. (2014). Instructional Design Models. In J. M. Spector, M. D. Merrill, J. Elen, &amp; M. J. Bishop (Eds.), <i>Handbook of research on educational communications and technology</i> (pp. 77-87). New York, NY: Springer. Wiburg, K. (2009). Instructional design: Is it time to exchange Skinner's teaching machine for Dewey's toolbox? In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 47-59). Charlotte, NC: Information Age Publishing. Willis, J. (2009). Three trends in instructional design. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 11-45). Charlotte, NC: Information Age Publishing.</p>

<ul style="list-style-type: none"> <li>○ Gagné nine events</li> <li>○ Kirkpatrick model</li> <li>○ Bloom's taxonomy</li> </ul>	<p>Reflective Questions to consider while reading:</p> <ul style="list-style-type: none"> <li>● Within a fundamental epistemological position, what should the focus of learning be: Process or product? Why? What is the impact of your choice on the way you design the instructional materials?</li> <li>● What might be the limitations and/or barriers of designing instruction based on learner characteristics?</li> </ul>
<p><b>3. Jan 21: Online Critiques of traditional models Alternative models/theories Comparing models</b></p> <ul style="list-style-type: none"> <li>● Pebble in pond/whole task</li> <li>● Rapid prototyping</li> <li>● Postmodern</li> <li>● Agentic</li> <li>● R2D2</li> <li>● Appreciative instructional design</li> </ul>	<p><b>Readings (general):</b>                  Andrews, D. H., &amp; Goodson, L. A. (1980). A comparative analysis of models of instructional design. <i>Journal of Instructional Development</i>, 3(4), 2-16.                  Willis, J. (2009). Foundations of instructional design: What's worth talking about and what's not. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 81-108). Charlotte, NC: Information Age Publishing.</p> <p>In groups, students review and research one of the following alternative design models. Describe the model. How would you illustrate the model? When and why would the model be useful? What are its limitations?</p> <p><b>AID:</b>                  Norum, Karen E. (2009). Appreciative instructional design (AID): A new model. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 423-436). Charlotte, NC: Information Age Publishing.</p> <p><b>Rapid prototyping:</b>                  Botturi, L., Contoni, L., Lepori, B. &amp; Tardini, S. (2009). Fast prototyping as a communication catalyst for e-learning design. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 189-206). Charlotte, NC: Information Age Publishing.                  Reiser &amp; Dempsey, CH18</p> <p><b>Pebble in pond:</b>                  Reiser &amp; Dempsey, CH 2</p>

	<p><b>R2D2:</b>                  Willis, J. (2009). Basic principles of a recursive, reflective instructional design model: R2D2. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 283–312). Charlotte, NC: Information Age Publishing.                  Willis, J. (2009). A general set of procedures for C-ID: R2D2. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 313-355). Charlotte, NC: Information Age Publishing.</p> <p><b>Agentic:</b>                  Campbell, K., Schwier, R., &amp; Kenny, R. (2009). Agency of the instructional designer: Moral coherence and transformative social practice. In J. Willis (Ed.), <i>Constructivist instructional design (C-ID): Foundations, models, and examples</i> (pp. 243-264). Charlotte, NC: Information Age Publishing.</p> <p><b>Postmodern:</b>                  Brown &amp; Green, CH1</p> <p>Reflective Questions to consider while reading:</p> <ul style="list-style-type: none"> <li>• What are your views regarding the dissatisfaction some have expressed about the use of ISD? Why? How does your philosophical orientations have an impact on your views? How will your views influence your approaches to how you design the instructional material?</li> </ul>
<p><b>4. Jan 28: In-class</b>  <b>Ethics</b>  <b>Learning theory</b></p> <ul style="list-style-type: none"> <li>• Communication theorists (e.g., McLuhn, Idhe)</li> <li>• “Traditional” learning theories</li> <li>• “New” learning theories</li> </ul>	<p><b>Readings:</b>                  Brown &amp; Green, CH2                  Reiser &amp; Dempsey, CH 4-6, 9 and 35.</p> <p>Reflective Questions to consider while reading:</p> <ul style="list-style-type: none"> <li>• In which camp do you fall: instructivism (behaviorism) or constructivism (humanism)? How will this influence your approach to instructional design? How would you work with a SME who has a different philosophical opinion?</li> </ul>
<p><b>Jan 28</b>  <b>Due: Assignment 1 (Instructional Design Model Analysis)</b></p>	

<p><b>5. Feb 4: Online Needs analysis</b></p> <p><b>Guest lecture:</b> Stanley Varnhagen, Faculty of Extension, U of A</p>	<p><b>Readings:</b> Brown &amp; Green, CH 3-5 Kennedy, D., Hyland, A., &amp; Ryan, N. (2006). <i>Writing and Using Learning Outcomes: A Practical Guide</i>. Handbook C 3.4-1. Retrieved from: <a href="http://www.tcd.ie/teaching-learning/academic-development/assets/pdf/Kennedy_Writing_and_Using_Learning_Outcomes.pdf">http://www.tcd.ie/teaching-learning/academic-development/assets/pdf/Kennedy_Writing_and_Using_Learning_Outcomes.pdf</a></p> <p>Reflective Questions to consider while reading:</p> <ul style="list-style-type: none"> <li>• What are the possible ways that an analysis of learner characteristics can be conducted by instructional designers?</li> </ul>
<p><b>Feb 4</b> <b>Due: ID Contract</b> <b>Due: Reflection 1</b></p>	
<p><b>6. Feb 11: In class Design:</b></p> <ul style="list-style-type: none"> <li>• <b>Task Analysis</b></li> <li>• <b>Learning Outcomes</b></li> </ul>	<p><b>Readings:</b> Brown &amp; Green, CH 6 and 7</p>
<p><b>Feb 18</b> <b>Winter Term Reading Week</b></p>	
<p><b>7. Feb 25: Online Design: Instructional Media</b></p> <ul style="list-style-type: none"> <li>• Media research overview</li> <li>• Kozma / Clark debate</li> <li>• Matching assessment learning outcomes</li> <li>• Mason's model</li> <li>• Gardener's hype cycle</li> <li>• What 40 years of research tell us about teaching with technology</li> </ul>	<p><b>Readings:</b> Reiser &amp; Dempsey, CH 29-34 Wiley, D., Bliss, T. J., &amp; McEwen, M. (2014). Open Educational Resources: A Review of the Literature. In J. M. Spector, M. D. Merrill, J. Elen, &amp; M. J. Bishop (Eds.), <i>Handbook of research on educational communications and technology</i> (pp. 781-789). New York, NY: Springer.</p> <p>Reflective Questions to consider while reading:</p> <ul style="list-style-type: none"> <li>• What is your view on whether media influences learning?</li> <li>• Why do you think so few postsecondary instructors integrate technologies into their learning?</li> </ul> <p>Reflective Questions to consider while reading:</p>

	<ul style="list-style-type: none"> <li>• What are your views revolving around the criticisms of writing learning outcomes and instructional sequencing?</li> </ul>
<b>Feb 25</b> <b>Due: Reflection 2</b>	
<p><b>8. March 3: Online</b>  <b>Online Learning &amp; Technology</b></p> <p><b>Guest: Erika Smith, Mount Royal University</b></p> <ul style="list-style-type: none"> <li>• What we know about effective online learning</li> <li>• Technological philosophical orientations</li> </ul>	<p><b>Readings:</b></p> <p>Christensen, R., &amp; Knezek, G. A. (2014). Measuring technology teadiness and skills. In J. M. Spector, M. D. Merrill, J. Elen, &amp; M. J. Bishop (Eds.), <i>Handbook of research on educational communications and technology</i> (pp. 829-840). New York, NY: Springer.</p> <p>Luschei, T. F. (2014). Assessing the costs and benefits of educational technology. In J. M. Spector, M. D. Merrill, J. Elen, &amp; M. J. Bishop (Eds.), <i>Handbook of research on educational communications and technology</i> (pp. 239-248). New York, NY: Springer.</p> <p>Paquette, G. (2014). Technology-based instructional design: Evolution and major trends. In J. M. Spector, M. D. Merrill, J. Elen, &amp; M. J. Bishop (Eds.), <i>Handbook of research on educational communications and technology</i> (pp. 661-671). New York, NY: Springer. doi:10.1007/978-1-4614-3185-5_53</p> <p>Smith, E. (2012). The digital native debate in higher education: A comparative analysis of recent literature. <i>Canadian Journal of Learning and Technology</i>, 38(3), 1-18. Retrieved from <a href="http://www.uh.cu/sites/default/files/The_Digital_Native_Debate_Higher_Education.pdf">http://www.uh.cu/sites/default/files/The_Digital_Native_Debate_Higher_Education.pdf</a></p>
<p><b>9. March 10: In class</b>  <b>Development: Instructional strategies and assessment</b></p> <ul style="list-style-type: none"> <li>• <b>Advance organizers</b></li> </ul> <p>Matching instructional strategies and assessment with learning outcomes Instructional strategies:</p> <ul style="list-style-type: none"> <li>• Designing instructional materials</li> <li>• Feedback</li> </ul> <p>Assessment:</p> <ul style="list-style-type: none"> <li>• Designing assessment</li> <li>• Authentic assessment</li> </ul>	<p><b>Readings:</b></p> <p>Brown &amp; Green, Ch 8 and 9</p> <p>Reiser &amp; Dempsey, CH 7 and 36</p>

<b>March 10</b> <b>Due: Reflection 3</b>	
<b>10. March 17: Online Implementation Collaboration</b> <ul style="list-style-type: none"> <li>• What we know about collaboration and project management</li> <li>• ID role in project management</li> <li>• Reflect on collaborative process/process issues</li> </ul>	<b>Readings:</b> Reiser & Dempsey, CH 12 Reflective Questions to consider while reading: <ul style="list-style-type: none"> <li>• At this point in the course, do you feel you have a sufficient understanding of the knowledge base domains? If not, where do you feel you need further information and/or practice?</li> </ul>
<b>11. March 31: Online Evaluation</b> <ul style="list-style-type: none"> <li>• Designing evaluation</li> <li>• Conducting evaluation</li> <li>• Using evaluation</li> </ul>	<b>Readings:</b> Brown & Green, Ch 10 Reiser & Dempsey, CH 10 and 11
<b>March 24</b> <b>Due: Reflection 4</b>	
<b>12. March 24: In class Researching ID Research on technology</b> <ul style="list-style-type: none"> <li>• Current research approaches and debates</li> <li>• Current research on ed technology</li> </ul>	
<b>13. April 7: In class</b>	<b>Course wrap-up activity</b>
<b>April 7</b> <b>Due: Assignment 3 (Instructional Design Project)</b> <b>April 14</b> <b>Due: Assignment 4 (Final Reflection)</b>	