

**Syllabus: CECS 6020-030/040**  
**Advanced Instructional Design: Models and Strategies**  
University of North Texas  
Spring 2016 Online Course • 3 credits  
Course online platform: <https://learn.unt.edu/>

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### CONTACT INFORMATION

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#### ***To reach the instructor:***

- Use the MESSAGE facility in Blackboard or email the instructor at [mike.spector@unt.edu](mailto:mike.spector@unt.edu) any time and expect a response within 48 hours during the work week; please include CECS 6020 in the subject line; you are responsible for all messages and announcements posted in the course site
- Post questions in the Blackboard Learn course discussions area and expect a response within 48 hours during the work week
- Schedule an advising appointment (via Skype, telephone, or in person) through email.

### ASYNCHRONOUS MEETINGS

We will meet online as a class. You will also be required to participate in asynchronous online meetings throughout the term. Regular participation is mandatory. Failure to regularly participate every week in online discussions and activities will result in the reduction of your final course grade by a full letter grade.

### SYNCHRONOUS MEETINGS

We may as a group decide to hold one or two synchronous video-conferences using GoToMeeting. These will be announced at least one week in advance and participation is expected; those unable to meet at the announced time should notify the instructor in advance.

### COURSE OVERVIEW AND POLICIES

#### ***Description:***

This course will provide students with advanced instructional design and development skills as well as the conceptual underpinnings of various instructional design models. This course will also familiarize students with a number of different design models that can be used in a variety of educational settings and contexts. Students will be required to critique one instructional design

model and to submit an elaborated design for a new unit of instruction that includes (a) the goals, objectives and scope of the unit, (b) the target learners including a general description of their prior knowledge and experience, their larger educational contexts, the number involved, and other relevant information about the learners, (c) the instructional approach taken, (d) a detailed justification for that approach that includes at least 10 references in APA 6 format, (e) learning resources and activities, and (f) formative and summative assessment.

***Platform and Basic Technical Requirements:***

This course uses Blackboard Learn (<https://learn.unt.edu/>) as its main platform for file sharing and communication, although other media may be incorporated based on class needs.

***Meetings:***

This online class will integrate significant self-directed study and online activities and communications.

***Electronic mail:***

A university-assigned student email account is the official means of communication with all students. Students are responsible for all information sent to them via this university-assigned email account. If a student chooses to forward their University email account or to use some other email account, he or she is still responsible for all information sent to the official UNT email account. The message facility in Blackboard can also be configured to notify students of a new message – students are responsible for configuring their Blackboard course site to do this.

***Students with Disabilities:***

University of North Texas recognizes its responsibility for creating an institutional climate in which students with disabilities can thrive. In accordance with university policy, if you have a documented disability and require accommodations to obtain equal access in this course, please contact the instructor at the beginning of the semester or when given an assignment for which an accommodation is required. Students with disabilities must verify their eligibility through the Office of Student Disability Services.

***Plagiarism:***

Under all circumstances, you are bound by the UNT policies on academic dishonesty and cheating. Any materials you have used or adapted must be fully credited and the original author and location fully cited. Any verified act of plagiarism, no matter how seemingly-small or inconsequential, will result in an F in the course (subject to appeal based on a finding of plagiarism) and possible additional sanctions by the University. The UNT Dean of Students requires official reporting of all instances of plagiarism.

All works submitted for credit must be original works created by the student uniquely for the class. Any exceptions to this (e.g., collaborative work or a variation of something submitted to another course) must be documented and approved by the instructor in advance. It is considered inappropriate and unethical, particularly at the graduate level, to make duplicate submissions of a single work for credit in multiple classes, unless specifically requested by the instructor. Work submitted at the graduate level is expected to demonstrate higher-order thinking skills and be of significantly higher quality than work produced at the undergraduate level. You are encouraged

to become familiar with the university's Student Standards of Academic Integrity policy:

[http://policy.unt.edu/sites/default/files/untpolicy/pdf/7-Student\\_Affairs-Academic\\_Integrity.pdf](http://policy.unt.edu/sites/default/files/untpolicy/pdf/7-Student_Affairs-Academic_Integrity.pdf)

Of particular interest are the following terms:

- **Cheating** – intentionally using or attempting to use unauthorized materials, information, or study aids in any academic exercise. The term academic exercise includes all forms of work submitted for credit or hours.
- **Plagiarism** – the deliberate adoption or reproduction of ideas, words, or statements of another person or of oneself in a prior work as one's own current work without acknowledgement.
- **Fabrication** – intentional and unauthorized falsification or invention of any information or citation in an academic exercise.
- **Facilitating academic dishonesty** – intentionally or knowingly helping or attempting to help another to violate a provision of the institutional code of academic integrity.

**Copyright Notice:**

Some or all of the materials on this course Website may be protected by copyright. Federal copyright law prohibits the reproduction, distribution, public performance, or public display of copyrighted materials without the express and written permission of the copyright owner, unless fair use or another exemption under copyright law applies. Additional copyright information may be located at: <http://copyright.unt.edu/content/unt-copyright-policies>.

**Note about medical emergencies:**

If you have a medical emergency that will prevent you from completing the course as scheduled, you MUST notify your instructor at the time of your medical problem. Requests for a grade of incomplete or to drop the course should come at the time of the medical emergency and must be supported by a letter from your physician indicating that your medical situation will NOT permit you to work at your computer in order to submit your assignments as scheduled. Requests based on a medical emergency cannot be granted after the medical emergency except in the most rare cases when prior communication was not possible. All requests for a grade of incomplete must be initiated by the student and meet standard university policy as outlined in the Incomplete Grade Information section below.

**GRADING CRITERIA**

**Grade Calculation:**

- |           |  |
|-----------|--|
| 20 points | Regular participation in online discussions (at least two substantive per week) and synchronous meetings.  |
| 20 points | A critical analysis (including a 150-250 word summary, a 150-250 word critique of strengths, appropriate use, and limitations, and at least three APA 6 references) of one instructional design model or learning theory mentioned in the discussions and posted to the discussion forum and to the assignment drop box. |
| 20 points | Preliminary design document posted to the discussion forum and to the assignment drop box that includes (a) the goals, objectives and scope of the unit, (b) the target learners including a general description of their prior  |

- knowledge and experience, their larger educational contexts, the number involved, and other relevant information about the learners, (c) the instructional approach taken, (d) a detailed justification for that approach that includes at least 10 references in APA 6 format, (e) learning resources and activities, and (f) formative and summative assessment.
- 20 points Peer feedback on preliminary designs of at least two other students (choice is left to individual students).
- 20 points Final design document posted to the assignment drop box that includes (a) the goals, objectives and scope of the unit, (b) the target learners including a general description of their prior knowledge and experience, their larger educational contexts, the number involved, and other relevant information about the learners, (c) the instructional approach taken, (d) a detailed justification for that approach that includes at least 10 references in APA 6 format, (e) learning resources and activities, and (f) formative and summative assessment.

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100 points

A – 90 - 100

B – 80 – 89

C – 70 – 79

D – 60 – 69

F – 59 and below

***Grading Policies:***

All assignments are due on the date specified in the syllabus area in Learn. 5% of the assignment grade will be subtracted for each day the assignment is late if submitted late without prior instructor approval. If an assignment is later than one week (5 working days), and prior arrangements have not been made, the assignment will not be accepted. **NOTE: If you are overwhelmed or falling behind on a particular assignment, please contact the instructor before the due date to discuss options.**

All students are expected to meet graduate standards by obtaining a "B" average on all assignments. This graduate standard indicates that the work was well done, completed, met stated criteria, represented a professional effort, and was turned in on time. Students seeking an "A" will need to demonstrate superior performance through critical thinking, exemplary products, positive and supportive interactions with colleagues and sustained active participation across course activities.

Any on-time assignment that receives less than an 80% may be reworked and resubmitted only by prior arrangement with the instructor. In order to gain additional points, participants must indicate what they would like to improve upon and how they plan to do so. Participants will then have one week following receipt of a grade and approval for a revision to make revisions.

Participants are encouraged to work with their peers and share their work in order to receive feedback prior to due dates.

***Incomplete Grade Information***

The department complies with university policy regarding the assignment of an Incomplete Grade in any course. Please see <http://essc.unt.edu/registrar/academic-record-incomplete.html> for information. Per UNT policy, a grade of Incomplete can only be awarded to a student who is 1) passing the course at the time of the request, and 2) has a justifiable and documented reason, beyond the control of the student, for not completing the course work on schedule. Notification and submission of documentation must be provided to the instructor at the time of the emergency.

### REQUIRED TEXTBOOK

- Spector, J. M. (2016). *Foundations of educational technology: Integrative and interdisciplinary perspectives* (2<sup>nd</sup> ed.). New York: Routledge. [Hereafter referred to as *Foundations*]
- Richey, R. C. (Ed.) (2000). *The legacy of Robert M. Gagné*. Syracuse, NY: The ERIC Clearinghouse on Information and Technology. Retrieved from <http://eric.ed.gov/?id=ED445674> [Hereafter referred to as *Legacy*]

### REQUIRED ONLINE READINGS

- Martin Ryder's Instructional Design Models – see <http://carbon.ucdenver.edu/~mryder/itc/idmodels.html> [Hereafter referred to as IDM]
- George Mason University Instructional Design Knowledge Base – see [http://cehdclass.gmu.edu/ndabbagh/Resources/IDKB/models\\_theories.htm](http://cehdclass.gmu.edu/ndabbagh/Resources/IDKB/models_theories.htm) [Hereafter referred to as as IDKB]
- Greg Kearsley's Theory into Practice Database – see <http://www.instructionaldesign.org/about.html> [Hereafter referred to as TIP]
- Jeroen van Merriënboer's 4C/ID Model – see <http://edutechwiki.unige.ch/en/4C-ID> and follow the link to Ten Steps to Complex Learning (<http://www.tensteps.info/>) and download the tutorial [Hereafter referred to as 4C/ID]

### COURSE OUTLINE

#### UNIT 1 – Weeks 1-2

- Introduction; syllabus overview; expectations; discussions of contexts and challenges

#### UNIT 2 – Weeks 3-6

- The nature and types of learning; purposes of instruction; pedagogical approaches

#### UNIT 3 – Weeks 7-10

- Instructional design approaches and models; appropriate uses and limitations

#### UNIT 4 – Weeks 11-15

- Connecting learning and instruction; assessing learning and performance; putting principles in to practice

### ADDITIONAL READINGS AND RESOURCES

The Online Writing Lab (OWL) at Purdue University – see

<https://owl.english.purdue.edu/owl/resource/560/01/>

The American Psychological Association Ethical Principles of Psychologists and Code of Conduct –

see <http://www.apa.org/ethics/code/>

AERA's Definition of Education Research – see

<http://www.aera.net/EducationResearch/WhatisEducationResearch/tabid/13453/Default.aspx>

The Clark-Kozma Debate in the 21<sup>st</sup> Century (Katrin Becker) – see

[https://www.academia.edu/462857/The\\_Clark-Kozma\\_Debate\\_in\\_the\\_21st\\_Century](https://www.academia.edu/462857/The_Clark-Kozma_Debate_in_the_21st_Century)

*The Legacy of Robert M. Gagné* – see <http://eric.ed.gov/?id=ED445674>

Merrill's *First Principles of Instruction* – see

<http://mdavidmerrill.com/Papers/firstprinciplesbymerrill.pdf>

*How People Learn: Brain, Mind, Experience, and School* – see

[http://www.nap.edu/openbook.php?record\\_id=9853](http://www.nap.edu/openbook.php?record_id=9853)

A Roadmap for Education Technology – see

<http://www.cra.org/ccf/files/docs/groe/GROE%20Roadmap%20for%20Education%20Technology%20Final%20Report.pdf>

Philosophy of Science in the *Internet Encyclopedia of Philosophy* – see

<http://www.iep.utm.edu/category/s-l-m/science/>

Karl Popper's Conjectures and Refutations – see

[http://worthylab.tamu.edu/Courses\\_files/Popper\\_ConjecturesandRefutations.pdf](http://worthylab.tamu.edu/Courses_files/Popper_ConjecturesandRefutations.pdf)

Don Clark's Instructional Design Site – see

<http://www.nwlink.com/~donclark/hrd/learning/development.html>

## SEMESTER SCHEDULE

### UNIT 1: Introduction

Week 1 (Jan 19-24)

Topic(s)	Activities	Requirements
Introduction to the course	Review of requirements and expectations	Read Chaps. 1-3 in <i>Foundations</i>
The nature of education, learning and instruction	Discuss the nature and definitions of education, learning, and instruction	Read Chap. 5 in <i>Legacy</i>
	Discuss the notion of an enterprise introduced by Gagné & Merrill	Post a response to the discussion forum prompt

Week 2 (Jan 25-31)

Topic(s)	Activities	Requirements
Behavior, cognition, and affect	Participate in the weekly discussion forum	Read Chaps. 4-6 in <i>Foundations</i>
Educational systems	Discuss the relationships among learning, behavior, context and emotions	Read the entries on Conditions of Learning and on Cognitive Flexibility Theory in TIP
Learning support mechanisms and strategies	Compare and contrast the conditions of learning and cognitive flexibility theory	Post a response to the discussion forum prompt

**UNIT 2: Learning**

## Week 3 (Feb 1 – 7)

Topic(s)	Activities	Requirements
A pedagogical approach	Participate in the weekly discussion forum	Read Chaps. 7-10 in <i>Foundations</i>
An instructional approach		Read the entries on Experiential Learning and on Operant Conditioning in TIP; Read Modern Prescriptive Models in IDM
	Discuss the relationship between behavioral learning and experiential learning with regard to what is held in common and what is different in each	Post a response to the discussion forum prompt

## Week 4 (Feb 8-14)

Topic(s)	Activities	Requirements
Physical context	Participate in the weekly discussion forum	Read the entries on Anchored Instruction, Criterion Referenced Instruction, and Information Processing Theory in TIP
Cognitive context		
Social context	Discuss the relationship between student-centering and instructor-centering	Post a response to the discussion forum prompt

## Week 5 (Feb 15-21)

Topic(s)	Activities	Requirements
From pedagogy to instruction	Participate in the weekly discussion forum	Read the entries on Elaboration Theory, Levels of Processing, Multiple Intelligences, and Situated Learning in TIP
	Pick a unit of instruction for your design effort – this should be a unit that you have not designed; it could be a lesson, a group of lessons, or	Read the Basic Principles and Embedded Theories in IDKB; Read Postmodern

	an entire course; it could be a redesign effort if there is an associated rationale for the need for a redesign	Phenomenological Models in IDM
		Post a response to the discussion forum prompt

## Week 6 (Feb 22-28)

Topic(s)	Activities	Requirements
Elaborating the individual and social aspects of learning	Participate in the weekly discussion forum	Read the entries on Genetic Epistemology, Social Development, and Social Learning Theory in TIP
		Read Comparative Summaries in IDM
	Discuss the notions of concrete and formal operations, provide examples of each, and indicate how a more knowledgeable other person can promote each type of learning	Post a response to the discussion forum prompt

**UNIT 3: Instruction**

## Week 7 (Feb 29-Mar 6)

Topic(s)	Activities	Requirements
Learning goals	Participate in the weekly discussion forum	Read Goals of Instruction and Instructional Models in IDKB
Instructional goals		
Determining progress towards goals	Discuss the differences between goals and objectives, especially with regard to assessment and measurement	Post a response to the discussion forum prompt

## Week 8 (Mar 7-13)

Topic(s)	Activities	Requirements
Instructional approaches	Participate in the weekly discussion forum	Read Implications for Instructional Design in IDKB
		Post a critique of a model or theory to the discussion forum and the assignment box (choice)



		of model and when to post is up to the student; a second chance to do this recurs in week 12)
	Distinguish and discuss the relationships among (a) learning theory, (b) instructional methods, (c) instructional conditions, (d) instructional strategies, and (e) learning outcomes	Post a response to the discussion forum prompt

SPRING BREAK IS MARCH 14-20

Week 9 (Mar 21-27)

Topic(s)	Activities	Requirements
Situational conditions and design constraints	Participate in the weekly discussion forum	Read Chaps. 16-19 in <i>Foundations</i>
		Read Model Centered Instruction and Design Layering in TIP
	When and how do constraints restrict design choices?	Post two responses to the critiques of other students

Week 10 (Mar 28-Apr 3)

Topic(s)	Activities	Requirements
Design elements and considerations	Participate in the weekly discussion forum	Post a preliminary design document to the discussion forum and the assignment drop box
Design disciplines		Read the entries in Learning Concepts in TIP
	What aspects of the learner and the learner's situation can be influenced and manipulated to facilitate learning?	Post a response to the discussion forum prompt

#### **UNIT 4: Instructional Design Models and Strategies**

Week 11 (Apr 4-10)

Topic(s)	Activities	Requirements
Complex and ill-structured learning tasks	Participate in the weekly discussion forum	Read 4C/ID and download Tensteps - <a href="http://www.tensteps.info/">http://www.tensteps.info/</a>
		Provide feedback in the

		discussion forum to 2 design documents of others
	What kinds of things makes some things (specify which ones) challenging to some learners and why?	Post a response to the discussion forum prompt

## Week 12 (Apr 11-17)

Topic(s)	Activities	Requirements
Effective learning	Participate in the weekly discussion forum	Second chance to post a critique of a model or theory to the discussion forum and the assignment box (choice of model and when to post is up to the student)
Effective instruction	Discuss the notion of failure-driven learning and instruction	Read Tensteps - <a href="http://www.tensteps.info/">http://www.tensteps.info/</a>
Promoting retention and transfer and inhibiting decay	Consider the tasks associated with being an air traffic controller, being an airplane pilot, being an automobile mechanic, and being a driving instructor. Indicate some of their specific tasks that are recurrent and some that are non-recurrent – explain how and why.	Post a response to the discussion forum prompt

## Week 13 (Apr 18-24)

Topic(s)	Activities	Requirements
Learning in and about complex problem-solving domains	Participate in the weekly discussion forum	Post two responses to the critiques of other students
	Discuss the 4C/ID model and its implications for the design of effective instruction	Post a response to the discussion forum prompt

## Week 14 (Apr 15-May 1)

Topic(s)	Activities	Requirements
Synthesizing lessons learned	Participate in the weekly discussion forum	
Ethical considerations	Discuss the Educatic Oath:	

	<p>“(1) do nothing to impair learning and instruction; (2) do what you can to improve learning and instruction; (3) base your actions on evidence that you and others have gathered and analyzed; (4) share the principles of instruction that you have learned with others; and, (5) respect the individual rights of all those with whom you interact.” Spector, J. M., Ohrazda, C., van Schaak, A., &amp; Wiley, D. (Eds.)</p>	
	Describe important things learned in this course and what you would like to have pursued or intend to pursue in more depth	Post a response to the discussion forum prompt

### Week 15 (May 2-May 8) Final Design Document

The only assignment this week is to finalize the design document and post it to the assignments drop box.

### EXPECTATIONS

#### **Activities and Goals:**

- Actively participate in online discussions
- Show that you can connect the readings with practice
- Contribute original ideas and critiques
- Incorporate and respond to the perspectives of your colleagues
- Show that you are a participating member of the scholarly community

#### **Online Discussions**

All participants should progress at a similar pace (following the weekly schedule and assignments). This way you won't feel lost due to too much work at once and the whole class will benefit from more focused and synergistic discussions around the readings and topics. Therefore, please be sure you keep up with your readings and postings.

It is expected that every participant post 2 or more substantive but succinct postings on the discussion forum every week. You should post both original thoughts regarding the readings and respond to the postings of your colleagues. Substantive postings include support for your posting with research as well as with your creative and spontaneous thoughts. Simple phrases such as “I agree” or “That’s wonderful,” though there is value in such a response, will not receive credit. It can be frustrating to read through a series of postings that offer little information. Build on the conversation and introduce new ideas, for instance, cite specific points or reasons for your opinion, or ask questions to clarify your understanding of what was said or to get other’s ideas.

Keep your postings direct and to-the-point, with good formatting. Make it easy for others to read and follow your reasoning. For postings to the discussion forum, one to three paragraphs (or 50

to 250 words) is usually a reasonable length. One can summarize a longer piece that is attached to a posting (use PDF, DOC, RTF, or JPG formats for attachments) as appropriate.

The following are suggestions (adapted from Stephen Brookfield's "Discussion as a way of teaching") which I expect in postings:

- Ask a question or make a comment that shows you are interested in what another person says;
- Ask a question or make a comment that encourages another person to elaborate on something that they have already said;
- Make a comment that underscores the link between two people's contributions;
- Make a specific comment indicating how you found another person's ideas interesting/useful;
- Contribute something that builds on, or springs from, what someone else has said. Be explicit about the way you are building on the other person's thoughts;
- Make a comment that at least partly paraphrases a point that someone has already made;
- Make a summary observation that takes into account several people's contributions & that touches on a recurring theme in the discussion;
- Ask a cause and effect question – for example, "can you explain why you think it's true that if these things are in place such and such a thing will occur?"
- Find a way to express appreciation for the enlightenment you have gained from the discussion. Be specific about what it was that helped you understand something better
- Disagree with someone in a respectful and constructive way.

Please use this list to help you determine what to write or say.

### **ASSIGNMENT REQUIREMENTS**

Late assignments are subject to a late penalty of one letter grade (or more, depending on lateness).

#### ***Participation (20 points)***

Regular participation consists of two substantive posting in the discussion every week. A substantive posting can be (a) an explanation of a critical point, (b) a question about a critical issue, or (c) an elaboration of a point made by another student. Simple agreement or disagreement with another posting does not count as substantive – there needs to be included why there is agreement or disagreement. Missing a week without posting results in a loss of 5 points; only posting once in a week results in a loss of 2 points.

#### ***Critical Analysis Posting (20 points)***

A critical analysis consists of a 150-250 word summary, a 150-250 word critique of strengths, appropriate use, and limitations, and at least three APA 6 references of one instructional design model or learning theory mentioned in the discussions and posted to the discussion forum and to the assignment drop box.

#### ***Preliminary Design Document (20 points)***

The preliminary design document for a new unit of instruction consists of (a) the goals, objectives and scope of the unit, (b) the target learners including a general description of their prior knowledge and experience, their larger educational contexts, the number involved, and other relevant information about the learners, (c) the instructional approach taken, (d) a detailed justification for that approach that includes at least 10 references in APA 6 format, (e) learning resources and activities, and (f) formative and summative assessment. This document should be posted to the relevant discussion forum and also the assignment drop box. Pick a unit of instruction for your design effort – this should be a unit that you have not designed. The design could be for a lesson, a group of lessons, or an entire course; it could be a redesign effort if there is an associated rationale for the need for a redesign

### ***Peer Feedback (20 points)***

Peer feedback on the preliminary designs of at least two other students (choice is left to individual students) is required. The feedback should be between 150 and 250 words in length and posted to the discussion forum and should include both strengths and recommendations for things to consider. For each missing posting there will be a penalty of 10 points.

### ***Final Design Document (20 points)***

The final design document that should be posted to the assignment drop box includes (a) the goals, objectives and scope of the unit, (b) the target learners including a general description of their prior knowledge and experience, their larger educational contexts, the number involved, and other relevant information about the learners, (c) the instructional approach taken, (d) a detailed justification for that approach that includes at least 10 references in APA 6 format, (e) learning resources and activities, and (f) formative and summative assessment. If there is no change between the preliminary and final design documents, there will be an automatic loss of 5 points.

### **APA FORMATTING REQUIREMENTS**

On all assignments, follow APA style formatting guidelines in submitted work. Failure to follow APA 6 carefully will result in a loss of at least one letter grade. You are responsible for following the most updated version of APA Manual book. This website may be useful too:

<http://owl.english.purdue.edu/owl/resource/560/01/>.