

EDUC 533  
INSTRUCTIONAL SYSTEMS DESIGN & DEVELOPMENT  
Josh Fischer

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**Course Information:**

EDUC 533  
Spring, 2013  
R: 5:30pm – 9:30pm  
WLM 123

**Course Description**

This course will introduce you to the systems approach to instructional design, which includes introductory information and application of skills and techniques in the analysis, design, development, implementation, and evaluation of instruction. The emphasis of this course is on the design and development of materials and/or media for instructional environments. This course applies a traditional approach to instructional systems design as it relates to 21<sup>st</sup> century learning environments, face-to-face and online.

**Course Competencies**

At the end of the course, participants will be able to:

1. Demonstrate an understanding of the instructional development process through course discussions.
2. Identify and summarize the major elements of instructional design models and apply this understanding to the completion of the instructional design project.
3. Demonstrate the following competencies through the completion of the instructional design project:
  - a. Identify an instructional problem
  - b. Identify, select, and describe instructional goals which address an identified instructional problem
  - c. Conduct goal analysis
  - d. Identify subordinate skills and entry behaviors
  - e. Analyze learners and contexts through the completion of a learner analysis
  - f. Write performance objectives which include behaviors, conditions, and performance criteria
  - g. Design, develop, and evaluate assessment Instruments which are congruent with performance objectives
  - h. Develop an instructional strategy based on needs analysis, and performance objectives
  - i. Design and Develop instructional materials
  - j. Design and conduct Summative and Formative Evaluations and revise instruction based on these evaluations

**Prerequisites**

Active enrollment in MEd Program

**Required Texts****Recommended Texts**

\*Gagné, R. M. (2005). *Principles of instructional design* (5th ed.). Belmont, CA: Thomson/Wadsworth.

\*Dick, W., Carey, L., & Carey, J. O. (2005). *The systematic design of instruction* (6<sup>th</sup> ed.). Boston: Pearson. ISBN:0205412742

\*Wiggins, G. P., & McTighe, J. (2005). *Understanding by design* (Expanded 2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

\*Previous versions of the text should suffice.

**Bibliography**

- Gagné, R. M. (2005). *Principles of instructional design* (5th ed.). Belmont, CA: Thomson/Wadsworth.
- Morrison, G. R., Ross, S. M., & Kemp, J. E. (2004). *Designing effective instruction* (4th ed.). Hoboken, NJ: J. Wiley & Sons.
- Instructional Approaches: A Framework for Professional Practice (1991). In F. o. E.-U. o. Regina (Eds.) Available from <http://www.sasked.gov.sk.ca/docs/policy/approach/copyright.html>
- Merriënboer, J. J. G. v. (1997). *Training complex cognitive skills : a Four-Component Instructional Design model for technical training*. Englewood Cliffs, N.J.: Educational Technology Publications.
- Merriënboer, J. J. G. v., & Kirschner, P. A. (2007). *Ten steps to complex learning : a systematic approach to four-component instructional design*. Mahwah, N.J.: Lawrence Erlbaum Associates.
- Simms, J. (2007). Why Projects Fail: Part 7, Poor Project Planning. *CIO*. Retrieved from [http://www.cio.com.au/article/190640/why\\_projects\\_fail\\_part\\_7\\_poor\\_project\\_planning?pp=2](http://www.cio.com.au/article/190640/why_projects_fail_part_7_poor_project_planning?pp=2)
- Wiggins, G., & McTighe, J. (2004). Introduction - The Logic of Backwards Design. *ASCD.org*. Retrieved from [http://www.ascd.org/ASCD/pdf/books/mctighe2004\\_intro.pdf](http://www.ascd.org/ASCD/pdf/books/mctighe2004_intro.pdf)
- Wiggins, G. P., & McTighe, J. (2005). *Understanding by design* (Expanded 2nd ed.). Alexandria, VA: Association for Supervision and Curriculum Development.

**Policies***Expectations*

This course requires weekly readings of material that are relevant to course discussions and projects. This course meets once weekly for three hours time. The class meets in the computer lab, and as such, much of the class time will involve students exploring various learning tools which they will use to create student-centered learning environments. It is expected that students attend and be prepared for each class session.

*Assignments*

Assignments should be submitted to your instructor through your wikispace.. If the assignment is submitted via email, you should expect a return email stating that the assignment has been received. If a receipt email is not received, then assume that the instructor did not get you assignment. Please do not post assignments to blackboard, as they will not be accepted.

*Attendance*

You are expected to attend ALL class sessions. Attendance is a regular part of your final grade. If you are unable to make a class session, you are expected to prepare a written statement and submit this to your instructor, prior to the absence. Also, following the absence, you are expected to interview a classmate and prepare a written 1-page summary of what was missed from the session.

**Due Dates**

1) At the beginning of the course an assignment schedule will be posted in the course room. 2) This schedule will have the due dates for all assignments for the entire quarter. 3) The due dates for these assignments are fixed. 4) The due dates will not change unless the instructor changes them in advance and notifies students of any deviation from the originally posted schedule. 5) NO LATE WORK WILL BE ACCEPTED. 6) If a student has an emergency or illness (vacations excluded) that causes the student to miss an assignment, the student is required to submit a written note to the instructor describing the situation; why the assignment was missed, which assignment(s) were missed, and when they plan to submit the missing work (i.e., specific date, day and time) when assignment will be made-up. 7) If a student has a non-emergency, (e.g., sporting event, recital, wedding, competition, or other similar activity) that causes the student to miss an assignment, the student MUST complete the assignment prior to the regularly scheduled due date. 8) Extensions/Late work will not be accepted.

*Grading Scale*

Eastern Washington University's 4pt. grade system is used in this course. To calculate your grade in this course, simply multiply your grade percent by 4.

*Academic Integrity*

It is expected that all students follow Eastern Washington University's Academic Integrity Policy. For review of this policy visit: <http://www.ewu.edu/x4319.xml>

*Students with disabilities*

Americans with Disabilities Act Compliance. Any student who may need an accommodation due to a disability should make an appointment to see me as soon as possible. A memo from the Eastern Washington University Disability Support Services Office authorizing your accommodations will be needed. For more information, contact EWU Disability Support at (509) 359-6871 or <http://www.ewu.edu/x2336.xml>.

*Student WikiSpace*

One of the ways in which you are going to organize, archive, update, review and communicate throughout this course will be by using a wikispace that you create for you and/or your group. During the first class session, a short tutorial will be given to assist in you creating a wikispace for this course. You will submit your assignments to your wikispace and over time, your wikispace will morph into a dynamic account of your journey through this course. Your wikispace will need to have the following pages: Home; 1. Instructional Model Comparison; 2. Needs Assessment; 3. Learning Task Analysis; 4. Assessment Plan; 5. Instructional Events; 6. Media Package; 7. Field Testing; 8. Final ID Package. These pages will house content, graphics, tables, charts, etc... relevant to your work and assignments for this course.

*Learning Philosophy*

This course attempts to model skills and attitudes from the field of instructional design as they relate to instructional training, and educational environments. As such, there are two central strands by which learners' project/assignments are evaluated: Performance and Completion. All of the assignments in this course are evaluated strictly in terms of the competencies for the assignment, and the degree to which these competencies have been met. The assignments involve extensive thought, research, evaluation, synthesis and application as you attempt to prepare solid work that is relevant and usable to within your professional context. Be sure to submit assignments as described in the syllabus and in the evaluation rubrics. If there are particular elements of an assignment that did not meet or achieve a given competency, then the learner may revise this aspect of the assignment. You have 1 week to resubmit work, and in the revised submission, include an attached point-by-point description of the changes that were made and how the competency (in your view) has been met. The points assessed on the second revision will be 90% of the total points available for the original submission. For example: If you submitted an assignment that had a 10 pt value, and there were competencies of this assignment that were not met, (say you got 6/10), then you can resubmit the assignment with appropriate revisions. If you addressed the competencies which were under question in the original submission, then your final "performance" would be  $(.90 * 10/10) = 9/10$ . The rationale for such an evaluation is that- performance matters- and is dependent on, not only the degree to which the competencies are met, but also the span of time necessary to meet the competencies. This system allows learners to continue to improve on the competencies of a given assignment.

Assignment	Pts.	Readings (select from one of the 2 texts)		Due Date
		Gagne	Dick & Carey	
<b>i. Instructional Model, Learning Model, Instructional Strategy Comparison</b>	20	<ul style="list-style-type: none"> <li>▪ Ch. 1, 2</li> <li>▪ ("Instructional Approaches: A Framework for Professional Practice," 1991)</li> <li>▪ Simms, 2007</li> </ul>	Ch. 1, 2	*Session 3
<b>ii. Needs Assessment</b>	20	Gagne Ch(s) 3, 4, 5, 6, 7	3,4	*Session 4
<b>iii. Learning Task Analysis</b>	25	Gagne Ch(s) 8	5,6	*Session 5
<b>iv. Assessment Plan</b>	25	Gagne Ch(s) 13	7,8	*Session 6
<b>v. Instructional Events</b>	25	Gagne Ch(s) 9, 10, 12	9,10	*Session 7
<b>vi. Media Package</b>	30	Gagne Ch(s) 11	11	*Session 8
<b>vii. Field Testing</b>	10	Gagne Ch(s) 16	12	*Session 9
<b>viii. Final Instructional Design Package</b>	50			*Session 10
<b>ix. Final Presentation</b>	25			FINALS
<b>x. Attendance</b>	10			

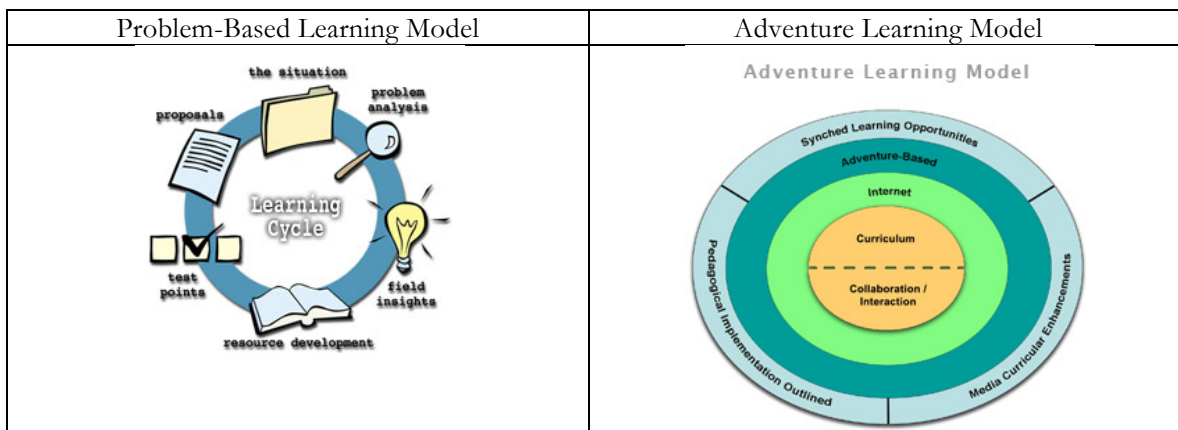
\*Note: Assignments are to be submitted to the wikispace by 11:59 PM PST for the corresponding session. The required readings pertain to the corresponding weekly assignment. Please complete readings prior to each class session (except for session 1).

**I. Instructional Design Model, Instructional Strategy Comparison (20 points)**

1. Prepare a well articulated, well organized and supported comparative “article” (1000-1500 word; note 250 on average 250 words will fit into 1 double spaced, 12 pt. (Arial, times, courier) page.) which addresses the following questions:
  - a. What are the differences/similarities between an instructional strategy and an instructional design model?
  - b. Select 2 different instructional design models and describe the similarities and differences between these models. Evaluate the elements of these models in terms of ADDIE and make recommendations regarding the degree to which each of these models might accomplish solving an instructional problem. Prepare an organizational/comparative graphic to guide your analysis, and evaluation (see the below diagram).

	<p style="text-align: center;"><b>Dick and Carey</b></p> <p style="text-align: center;">Dick and Carey Instructional Design Model</p>	<p style="text-align: center;"><b>Understanding by Design</b> <b>Technology in the MYP</b></p> <p style="text-align: center;">The design cycle</p>
A		
D		
D		
I		
E		

- c. Select 2 different instructional strategies and describe the similarities and differences between them. Evaluate the elements of these strategies in terms of how they could be used to design and develop an instructional lesson or module. Prepare an organizational/comparative graphic to guide your analysis, and evaluation (see the below diagram).



Sample Comparison Criteria	Model 1	Model 2
Relative “student-centeredness”		
Assessment		
21 <sup>st</sup> Century Fluencies		
Ease of Use		

2. Submit the article to the Wiki Space for this course. The article will be evaluated in terms of: ideas; organization & coherence; support; style; and mechanics. The article will be evaluated using the “Critical Thinking Evaluation”. You may work in small teams for this assignment. If you work in teams, it is recommended that you have a project manager or team leader who delegates and organizes the project. Post article to your group class wikispace and link to the class wikispace @ <http://ed533.wikispaces.com/>
  - a. Some examples of instructional design models and instructional strategies are as follows:
    - i. (Action Research; Activity Theory; Anchored Instruction; Andragogy; Cognitive Apprenticeship; Cognitive Flexibility Theory; Generative Learning; Computer Supported Collaborative Learning (CSCL); Computer Supported Intentional Learning Environments (CSILE); Conversation Theory; Discovery Learning; Inquiry Teaching; Interpretation Construction (ICON); Mind Tools; The Minimalist Model; Maria Montessori; Problem-Based Learning (PBL); The Project Method; Play; Role Play; Roger Schank Case-Based Reasoning; Schema Theory; Situated Cognition; Observational (Social) Learning Theory; Structural Knowledge) visit <http://carbon.ucdenver.edu/~mryder/itc/idmodels.html> for more background, details and descriptions on these models.
3. Make a short presentation (7-10 minutes) to classmates regarding the model you selected. Please be sure to bring a graphic of your model to share.

**II. Needs Assessment****ASSIGNMENT: CONDUCTING A NEEDS ASSESSMENT**

(20 points)

The first step in the instructional design process is conducting a Need Assessment. Having a needs assessment strategy helps you from over-researching a topic. Given that you have limited time to conduct a needs assessment, a strategy gives you a plan before "walking out the door".

**Task:** You will be conducting a Needs Assessment for your current or anticipated teaching or professional environment. When determining when to conduct a needs assessment you should investigate when:

1. No big problem is apparent, but the organization wishes to or is required to engage in developing a new learning/training program (**Discrepancy-Based Needs Assessment**). For example: Your principal determines that each teacher is only using Powerpoint in their classroom for lecture. Your committee is charged with developing a training program for the teachers who need to learn alternative uses for the Powerpoint software.
2. There's a problem: Clients are not satisfied; students are dropping out in unexpected numbers; parents are complaining; products are defective; test scores are down (**Problem-Finding-Problem Solving Assessment**) For example: An analysis of your WASL scores for Mathematics indicates that students are not doing well on the geometry strand. Your committee is charged with the responsibility of analyzing the data and the current curriculum alignment to determine a solution that will raise student achievement scores on the WASL geometry strand.
3. There is or may be something new that our learners need to learn: New guidelines from the state Department of Education suggest that all learners be proficient in computer mediated communication; new equipment is being added that employees need to operate; we have new employees who require redemption in order to do their jobs (**Innovation Needs Assessment**). For example: Your school is adding 20 computer stations in the library as a means of allowing students to use the Internet for research. Your committee is charged with developing a training program for students to help them learn new and efficient ways of searching the Internet.

Consider the above situations that normally lead one to conduct a Needs Assessment in light of your employment situation. Brainstorm possible situations under each of the situations above circumstances.

**Conducting the Needs Assessment:** Gather all of the appropriate data you may need. Spend some time analyzing the information. Choose one of the following Needs Assessment Models to conduct your Needs Assessment:

- Discrepancy-Based Needs Assessment
- Problem-Finding, Problem-Solving Model
- Innovation Model

**Writing up the Results:** Use the following criteria to report out the results of your Needs Assessment

- Explain what Needs Assessment model you used and why (2 points)
- For the Discrepancy-Based need assessment describe the discrepancy and give a rationale for why the organization wishes to or is being required to engage in the learning-training program. For the Problem-Finding, Problem Solving model explain the problem that you uncovered, presenting data and/or a rationale that substantiates the existence of the problem. For the Innovation model explain the new innovation and why your organization is attempting to introduce the new innovation. (2 points)
- For either model you use identify the instructional or training need that will result for the adoption of the innovation or the solution to a problem or closing the discrepancy that you've identified. Validate the instructional or training need using data. Data can be either quantitative or qualitative. Consider looking at standardized test scores, student projects, anecdotes, journal entries, etc. (2 points)

- In every training session there are both instructional and non-instructional needs. Above you've identified the instructional needs. Now, point out where there non-instructional interventions. (2 points)
- Describe the learning environment. (8 points) The following questions should be considered when describing the learning environment:
  1. What are the characteristics of the teachers/trainers who will be using your instructional unit/materials?
  2. Are there existing curricula into which their piece of instruction must fit? If so, what is the philosophy, strategy, or theory used in these materials?
  3. What hardware is commonly available in the potential learning environment(s)? Are computer workstations available? If so, what kind, how many, and in what configurations and networks? What about slide or overhead projectors? What software and other materials are available?
  4. What are the characteristics of the classes and facilities that will use the new instruction?
  5. What are the characteristics of the school system in which the new instruction will take place?
  6. What is the philosophy and what are the taboos of the larger community in which the organization or school system exists?
- Describe the learners (4 points). You do not need to describe all of the characteristics in the outline, but identify the characteristics that will have an impact on the instructional or training of the learners.

**Format:** There is no "right" way to write your report. Think of this as a report to your principal or the school board, or parents, or the administration of the organization that has employed you to address the "NEED". The only requirement for writing is that you use standard English grammar, use appropriate APA or MLA documentation when warranted, and present your report in a professional manner. (Keep in mind you can use technology to prepare your report - for example, you can present it in a Powerpoint format, or you post it on your web page in a PDF format, or you can print out a copy and turn it into your professor).



**III. Learning Task Analysis****ASSIGNMENT: LEARNING TASK ANALYSIS**

(25 points)

The second step in the Instructional Design Process is the analysis of the learning task. From the Needs Assessment that you conducted you should have identified instructional (training) and non-instructional needs. The non-instructional needs will be addressed in more detail later. You should now focus on the instructional need. Your instructional need should have been expressed in the form of a goal or series of goals. Those goals represent your starting point for this assignment.

There are four primary components in performing a learning task analysis are based upon the model presented in your textbook.

- Write a learning goal.
- Determine the types of learning (or understanding).
- Write learning objectives for the learning goal and each of the prerequisites.
- Conduct a prerequisite analysis and determine the type of learning of the prerequisites.

**Conducting the Learning Task Analysis**

**Step # 1: Writing the Learning Goal:** Write a learning goal based upon your Needs Assessment. Learning goals should be broad statements that describe the final outcome. You may have already written your learning goal or goals in your needs assessment. If so, begin with that goal. Remember your goals are broad statements (5 pts).

**Step # 2: Determine the Types of Learning:** You will complete step # 2 for each goal that you wrote as part of step # 1. Once you have written the learning goal you need to determine the types of learning or understanding represented within that learning goal. In order to analyze your learning tasks it is helpful to select a theory that will guide your thinking about the learning task. Several prominent theories are common in educational settings. Those theories include, Gagne's Learned Capabilities, Wiggins & McTighe's Theory of Understanding, or Bloom's Cognitive Taxonomy. Which theory you select may depend upon your familiarity and understanding of the theory or upon the organization for whom you are preparing your instructional design. Wiggins & McTighe's theory works well with most subjects, but may be particularly compatible with social studies, science, and English. Gagne's theory may be more compatible with more technical subjects or skill based subjects such as mathematics, art, physical education or technology related applications. You should choose the theory that makes the most sense to you for your analysis.

The focus of this analysis is on WHAT is learned. Select one of the following theories and analyze the learning represented by your learning goal. You may even consider using a couple of models to assist you in your task analysis (10 pts).

Theories of Learning For Learning Task Analysis

The theories are presented as examples. The chart is one way of writing up your analysis. You are free to write up your analysis in any way that is best for you to communicate the embedded learning within your goal or goals. For explanations of the theories below consult your textbooks for this course. Bloom's taxonomy of cognitive learning is not discussed in your textbooks, but is a common theory that you may be familiar with and are free to use for your analysis.

**Theory # 1:** Gagne's Learning Outcomes

One model that can be used to analyze learning is presented by Gagne. This model is particularly applicable for technology related designs or designs that include rules or procedures. This model can also be very good when using a problem based learning design.

Learned Capability	Overarching Understanding Desired
Declarative Knowledge	Declarative Knowledge: The learners will be familiar with the following terms: Editor, Explorer, Fetch, HTML, Upload, WebBrowser, JPEG, GIF.
Discriminate	Discrimination: The learners will be able to explain the difference between a JPEG and GIF picture format.
Concept	
Rule/Procedure	Procedures: The learner will <ul style="list-style-type: none"> <li>• Be able to use the horizontal bar.</li> <li>• Be able to use tables within a web page</li> <li>• Create hyperlinks on the webpage</li> <li>• Attach pictures to the web page</li> <li>• Upload a webpage using Fetch</li> <li>• Change the color of the font on the web page</li> <li>• Change the size of the font on the web page</li> </ul>
Principles	
Problem solving	
Attitude	Attitudes: The learner will appreciate the value of having information available to families and students on the web.
Psychomotor	
Metacognitive Strategy	

**Theory # 2:** This model of analysis utilizes Bloom's Cognitive Taxonomy.

\*Note Blooms taxonomy has been recently revised from:

Knowledge>Understanding>Application>Analysis>Synthesis>Evaluation to  
Remembering>Understanding>Applying>Analyzing>Evaluating>Creating.

As an instructional designer, it will be your judgment regarding which taxonomy you utilize.

Bloom's Cognitive Level	Overarching Understanding Desired
Knowledge	Learn the following terms: ROM RAM CPU
Understanding	
Application	
Analysis	
Synthesis	
Evaluation	

**Theory # 3:** One model for instructional design is the Wiggins & McTighe Model: This model is particularly effective for content-based instructional needs. If you select the Wiggins & McTighe model use the following chart to analyze the learning task:

Use the following chart as a guide for your analysis. This analysis is based upon the figure 5.6 on pages 76 and 77 of Wiggins and McTighe.

FACET	Overarching Understanding Desired
EXPLANATION	<b>Explanation:</b> Students will explain, using political events, why the southern states decided to secede from the Union in 1860 rather than prior to 1860.
INTERPRETATION	<b>Interpretation:</b> Students will use primary source documents to prepare for their dramatization depicting a conversation about the expansion of slavery into the territories.
APPLICATION	
PERSPECTIVE	<b>Perspective:</b> Students will dramatize the southern and northern views of the election of 1860 and associated views of slavery and the expansion of slavery into the territories.
EMPATHY	
SELF-KNOWLEDGE	<b>Self-Knowledge:</b> Students will prepare a reflection about how they would respond to the political and social events of the late 1850s from the perspective of a teenager who must contemplate joining the Union or Confederate army and why they would fight for their chosen cause.

**Step # 3: Writing Educational Objectives:** Objectives are written at the lesson or learning task level. Once you have conducted an information processing analysis you are able to determine what the prerequisite skills, knowledge and attitudes should be. The remaining skills, knowledge and attitudes will be taught or experienced by the learners who engage in your instructional sequence. For each of these skills, knowledge, attitudes and processes you should write an educational objective. Objectives should be more specific than learning goals. Remember that objectives need to be specific and measurable (5 pts).

**For Example:**

FACET	Overarching Understanding Desired	Objectives
EXPLANATION	<b>Explanation:</b> Students will explain, using political events, why the southern states decided to secede from the Union in 1860 rather than prior to 1860.	<ol style="list-style-type: none"> <li>1. Students will explain the rise of the Republican Party</li> <li>2. Students will define the Compromise of 1820 and 1850.</li> <li>3. Students will explain how political party shifted to the northern states during the 1830-1850s.</li> <li>4. Students will explain the effect of multiple party candidates on the elections during the 1850s.</li> </ol>
INTERPRETATION	<b>Interpretation:</b> Students will use primary source documents to prepare for their dramatization depicting a conversation about the expansion of slavery into the territories.	<ol style="list-style-type: none"> <li>1. Students will identify the background of the writer of the primary source document.</li> <li>2. Student will place the document within historical context.</li> <li>3. Students will read and interpret the Dred Scott decision.</li> </ol>
APPLICATION		
PERSPECTIVE	<b>Perspective:</b> Students will dramatize the southern and northern views of the election of 1860 and associated views of slavery and the expansion of slavery into the territories.	<ol style="list-style-type: none"> <li>1. Students will assume the role of a character from either the northern or southern states and demonstrate their understanding of their characters socio-economic status by their selection of costume and demeanor.</li> <li>2. Students will engage in dialogue that represents their character's views of the slavery issues of the 1850s.</li> </ol>
EMPATHY		

SELF KNOWLEDGE	<b>Self-Knowledge:</b> Students will prepare a reflection about how they would respond to the political and social events of the late 1850s from the perspective of a teenager who must contemplate joining the Union or Confederate army and why they would fight for their chosen cause.	
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**Step # 4: Identify what pre-requisite skills, knowledge and beliefs your students need prior to coming to your instructional design:** If your educational objectives build upon pre-requisite knowledge or skills you'll want to explain those pre-requisites. In addition, if your students need to come with certain attitudes or dispositions than you'll need to explain those as well. For example: When you enter our undergraduate teacher education program you need to pass the basic skills test. That is a pre-requisite requirement before being admitted into our teacher education program. In addition, applicants to the teacher education program also are required to participate in an interview. That interview identifies the to what degree certain attitudes necessary to be successful in teacher are exhibited by the interviewee. For your design are there certain knowledge, skills or attitudes that need to be present for success? Keep in mind that you don't necessarily need to have a test or interview to measure those, but they should still be identified (5pts.).

#### **Writing Up Your Results**

You may write up your results in any fashion that you choose. The above use of charts for analysis is just one example meant to illustrate a way of thinking about your task analysis. You may choose to use the charts as part of your write up. You may also choose to write up the analysis in a narrative. Choose a way to write up your results that makes the most sense to you and is appropriate for your intended audience.

**IV. Assessment Plan****ASSIGNMENT: DESIGNING AN ASSESSMENT PLAN**

(25 points)

This assignment builds upon assignment number two. Given your analysis of the learning task (Dick & Carey; Gagne, Wiggins & McTighe or Bloom), you need to determine how you will assess your students progress toward and MASTERY of the learning task.

Your first job in this assignment is to determine whether or not you want to **pre-assess** your learners (5 pts.). Are there pre-requisite skills and knowledge that your learners **MUST** have mastered in order to be successful in your design? If so, should you design a pre-assessment to determine whether or not your learners are ready to begin your design.

Your second task is to re-evaluate what you had identify earlier as the student behavior(s) that would be an indication to you that your student(s) are making progress toward mastery of the learning task. Once you have identified what behaviors indicate progress then identify what type of **formative assessments** you will use to gather data about the student(s)' progress toward mastery of the learning task (5 pts.).

Your third task in this assignment is to identify what student behavior(s) would be acceptable to you as sufficient evidence that the student has MASTERED your learning task (**summative assessment**) (5 pts.).

**Sample Assessment Analysis Using Gagne's Learned Capabilities Theory**

<b>LEARNING TASK</b>	<b>Overarching Understanding</b>	<b>Essential Question</b>	<b>Learning Objective</b>	<b>ASSESSMENT EVIDENCE (Data)</b>
Procedural	Web Browsing	How can I locate information on the Internet in an efficient way?	Use the Internet to locate research	Worksheet A
Problem Solving	Web page Design	How can I design my own web page?	Builds Web page	Posted Web page.
Discrimination	Identifying Effective Web Pages	What are the characteristics of effective web pages?	Students will evaluate web pages and identify characteristics of effective web pages.	Completion of a web page evaluation rubric for a minimum of ten given sights and an additional 5 sites of the learner's choosing.

## Sample Assessment Analysis Using Wiggins &amp; McTighe, Understanding By Design Theory

Big Idea	Overarching Understanding	Essential Question	Learning Objective	Assessment Evidence
Explanation	Nutritional Value	What does a nutritious diet look like?	Students analyze a hypothetical family's diet for one week & make recommendations for improving its nutritional value	Nutritionists Analysis Form
Application	Communicating healthy eating habits	How can I tell others about how to eat healthy?	Students create an illustrated brochure to teach younger children about healthy eating.	Brochure
Application	Developing menus	How do I plan a healthy menu?	Students develop a three-day menu for meals and snacks for an upcoming Outdoor Education camp experience.	Menu

## Sample Assessment Analysis Using Bloom's Cognitive Taxonomy

Big Idea (level of Bloom's)	Overarching Understanding	Essential Question	Learning Objectives	Assessment Evidence
Knowledge	Nutritional Value	What does a nutritious diet look like?	Students analyze a hypothetical family's diet for one week & make recommendations for improving its nutritional value	Nutritionists Analysis Form
Understanding	Food Pyramid	How do I read the food pyramid?	Students will be able to explain in a short essay the food pyramid and how to use it to plan a menu	Essay response
Application	Developing menus	How do I plan a healthy menu?	Students develop a three-day menu for meals and snacks for an upcoming Outdoor Education camp experience.	Menu
<b>Analysis</b>	Food Pyramid	How do I determine whether or not all of the food groups are represented in a menu?	Students will be given a sample three day menu on a quiz and they will have to determine whether or not each of the food group requirements have been met	Essay response
Synthesis	Communicating healthy eating habits	How can I tell others about how to eat healthy?	Students create an illustrated brochure to teach younger children about healthy eating.	Brochure
Evaluation				



**Writing Up Your Assessments**

In this assignment you are creating the actual assessments that you will be using with your learners. You should first create an overview of the assessments that gives the reader an overview. An overview can be in the form of a chart like one ones above and should include a label for the learner behavior being assessed, a description of the evidence that you will use for the assessment and a way to link the assessment to the objective(s) (from assignment # 2) that you are assessing.

Next, create the actual assessments. This will be accomplished through an assessment overview (5pts.); and through the development and creation of the actual assessments (5pts.). That includes creating the handout that you'd give the learner that contained the directions. That may include the test or quiz. That may include the rubrics you'd use to evaluate the performance. By actual assessment, I mean the one that you'd actually give your learner during the instructional workshop or class.

**V. Instructional Events****Assignment: Planning Your Instructional Sequence****(25 points)**

For this assignment you will be planning and writing up your instructional sequence. An instructional sequence can be a day by day lesson plan or it can be the order that your media presents information. For example, how your powerpoint presentation is presented (slide by slide) or your instructional sequence can include the order of events or activities for your three day workshop. In any situation it is important that you plan your instructional sequence. After you plan your instructional sequence you must communicate your instructional sequence.

The way you communicate your instructional sequence is extremely important. It must be communicated in such a way that the person using your instructional design knows exactly how to use your media or deliver your lessons or activities. It can be useful to incorporate icons which represent learning tasks. If your instructional design consists of developing media or technology, consider using Gagne's events of instruction for designing your technology.

To complete assignment # 4 you should submit the following:

**If you are developing a unit or workshop:** Include complete, teachable lesson plans for each day of the unit or workshop. A complete lesson plan follows a learning cycle model and includes a sample of all of the instructional materials and/or equipment, handouts and/or worksheets that one would need if they were presenting the workshop or teaching the unit. Your Unit or Workshop should be teachable/presentable by anyone of your same training or expertise.

The 25 points are determined as follows: 5 pts. for proper use of a lesson design model; 5 pts. for including all of the handouts/worksheets necessary for teaching the unit or presenting the workshop; 5 pts. if the lesson sequence clearly leads the learners to accomplishing the goals set out in the needs assessment; 5 pts. if the lesson sequence is logically ordered; 5 pts. for including the use of technology/media within your lesson sequence (either to present material or for student use).

**If you are developing media/technology:** A sketch or description of your media and how it includes the essential instructional events. For example, if you are creating a web page for instruction provide a rough draft of the layout of your web page(s) - or take me to the link of your posted web page.

The 25 pts. are determined as follows: 18 pts. for the essential instructional events (9 pts. for including the essential events and 9 pts. for a clear description of how each event is evidenced in the media/technology); and 7 pts. for a rough draft or outline of the instructional media.

**VI. Media Package****Assignment: Selecting & Evaluating or Developing Instructional Media for Your Media Package**

(30 points)

**Step # 1: Determine the Type of Media** that would best accomplish the instructional objectives (2pts.). For Example (but not limited to):

- Teaching Concepts: PowerPoint
- Declarative Knowledge Acquisition: Print Media, Web Sites
- Problem Solving: WebQuests; Games/Simulations; Computer Spread Sheets for data organization & analysis; Probes for data collection etc.
- Assessment

**Step # 2: Identify what Media** are necessary for each activity (8 pts.; *2pts.per activity*). Write a brief rationale outlining your reasoning for the media you selected.

Instructional Events	Abstract/Summary	Intended Media	Rationale
Activity # 1 (or lesson)	Students will visit several web sites from a list of web sites given to them in class. At each site, pairs of students will identify what features of the site they really like and what features of the site that they find objectionable.	Internet	The Internet is an authentic medium that the students will use to construct their project. Evaluating authentic pages is best done in the medium being used.
Activity # 2 (or lesson)	Students will construct a rubric that will guide their later web page construction. Students will work in pairs and identify the criteria that they believe make for a good web page. Next the pairs will work with other pairs to modify the characteristics that they believe make for an effective web page. Each grouping will report out their results. The whole class, guided by the teacher, will develop an evaluation rubric to guide their web page construction.	Flip Chart	The teacher will record student answers and suggestions. The purpose of the lesson is to capture ideas so the teacher can construct a rubric to presented the next day in class.
Activity # 3 (or lesson)	Web Page Construction	Internet	

		Digital Camera Scanner	
Activity # 4 (or lesson)	Web Page Presentation	Internet	

**Step # 3:** You must develop a least one of your own instructional media (10 pts.). For this assignment that must include one of the following options

- PowerPoint (must be used for something other than lecture)
- Web Quest
- Web Page
- Hyper Studio
- Video
- Screencast or Podcast
- Learning Object
- Game
- Other: You may contract with your professor to develop a media based upon your own interests and skills)

**Step # 4:** Develop your instructor's manual (10 pts.).

Tell the person who is going to use your design how to use the design. This could include lesson plans for each day or directions & protocols for each activity or simply a narrative that explains to the instructor how to use the design to accomplish the goal.

**VII. Field Testing****Assignment: Field Testing**

(10 points)

**For this assignment, prepare a plan for field testing of your instructional environment.** (1) Select at least one type of formative evaluation and provide rationale for how it was/would be used); (2) Propose revision of how instructional materials real/virtual feedbacks (e.g., propose scenarios which would direct revising of materials); (3) Design summative evaluation with rationale.

**Designing and Conducting Formative Evaluations (5pts.)**

- a. Formative Evaluations
  - i. One-to-one evaluation with learners
    - 1. Criteria
    - 2. Selecting learners
    - 3. Data collection
    - 4. Procedures
    - 5. Assessment and Questionnaires
    - 6. Learning time
    - 7. Data interpretation
    - 8. Outcomes
  - ii. Small-group Evaluation
    - 1. Criteria and Data
    - 2. Selecting Learners
    - 3. Procedures
    - 4. Assessments and Questionnaires
    - 5. Data Summary and Analysis
    - 6. Outcomes
  - iii. Field Trial
    - 1. Location of Evaluation
    - 2. Criteria and Data
    - 3. Selecting Learners
    - 4. Procedures
    - 5. Data Summary and Interpretation
    - 6. Outcomes

**Revising Instructional Materials**

- b. Data Analysis
  - i. One-to-One Trials
  - ii. Small-group
  - iii. Field Trials
- c. Conclusions
  - i. Entry Behaviors
  - ii. Pretest and Posttest
  - iii. Instructional Strategy
  - iv. Learning Time
  - v. Instructional Outcomes
- d. Revision of Instructional Materials and Instructor-Led Instruction

**Designing Summative Evaluations (5 pts.).** - *Provide rationale for one of the following summative evaluation phases which would be most congruent with the instruction which you have designed. Design an expert phase or field trial phase summative evaluation for your instructional design project.*

- e. Expert Judgment Phase
  - i. Congruence Analysis
    - 1. Organizational Needs
    - 2. Resources
  - ii. Content Analysis
  - iii. Design Analysis
  - iv. Utility and Feasibility Analysis
  - v. Current User Analysis
- f. Field Trial Phase
  - i. Outcome Analysis
    - 1. Planning
    - 2. Preparing
    - 3. Implementing/Data Collection
    - 4. Data Analysis
    - 5. Reporting Findings

**VIII. Final Instructional Design Package****Assignment: Instructional Design Package**

(50 points)

- i. Instructional “problem” identification/description
- ii. Identification/Description & Analysis of Instructional Goals
- iii. Subordinate Skills & Entry Behaviors Analysis
- iv. Learner and Context Analysis
- v. Performance Objectives
- vi. Assessment Instruments
- vii. Design and Development of Instructional Strategy and/or Learning Model
- viii. Developing Instructional Materials
- ix. Design of Formative and Summative Evaluations
- x. Revision of Instructional Materials

**IX. Final Presentation**

- a. Prepare an
  - i. advertisement
    1. (Video/multimedia) OR
    2. Brochure and/or Poster
      - a. to showcase your final instructional package. You may consider utilizing the MARS lab on campus to assist in the production of your media materials. Keep in mind the necessity of this assignment in that your work to this point is only known to those within your group and members of the class. Think about how you can take what you have produced here and use it in the future (e.g., in the class setting, at a training session/in-service, a job interview, etc...).
  - ii. Make your media materials available at your wikispace for all to see!

<b>Course Objectives:</b> At the completion of the course students will be able to:	<b>Assessment:</b> Evidence of student learning. Rubrics will be developed with students. Evidence will be found in rubrics for the following:	<b>NCATE Standard targeted:</b>	<b>Dept. outcomes targeted for each Course Outcome:</b>
4. Demonstrate an understanding of the instructional development process through course discussions.	Effective participation in course discussions and mini presentations.	1A. Content 1B. Pedagogical content knowledge. 1C. Professional & pedagogical knowledge and skills. 1D. Student Learning	1. Demonstrate excellence in instructional preparation and practice.  3. Create meaningful & engaged student learning opportunities.  4. Practice collaboration as a problem solving strategy.  5. Encourage all students to become critical thinkers, problem-solvers and inquirers in a global society.  7. Use reflection as a basis of continual improvement and model professional growth.  8. Promote and model life-long learning.
5. Identify and summarize the major elements of instructional design models and apply this understanding to the completion of the instructional design project.	Effective completion of the Instructional Design Model, Learning Model, & Instructional Strategy Critique.	1A, 1B, 1C, 1D	1, 3, 4, 5, 7 & 8



<p>6. Demonstrate the following competencies through the completion of the instructional design project:</p> <ul style="list-style-type: none"> <li>a. Identify an instructional problem</li> <li>b. Identify, select, and describe instructional goals which address an identified instructional problem</li> <li>c. Conduct goal analysis</li> <li>d. Identify subordinate skills and entry behaviors</li> <li>e. Analyze learners and contexts through the completion of a learner analysis</li> <li>f. Write performance objectives which include behaviors, conditions, and performance criteria</li> <li>g. Design, develop, and evaluate assessment Instruments which are congruent with performance objectives</li> <li>h. Develop an instructional strategy based on needs analysis, and performance objectives</li> <li>i. Design and Develop instructional materials</li> <li>j. Design and conduct Summative and Formative Evaluations and revise instruction based on these evaluations</li> </ul>	<p>Successful creation and presentation of: a needs assessment; Learning Task Analysis; Assessment Plan; Instructional Events; Media Package; Field Testing; Final Instructional Design Package; Final Presentation</p>	<p>1A, 1B, 1C, 1D</p>	<p>1, 3, 4, 5, 7 &amp; 8</p>
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**Syllabus and Course Agreement** (sign the below form and submit a copy to your instructor)

I have read and understand the expectations of the course and the details of the assignments.

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Student Name (Print)

Student Signature (Sign)

Date (mm/dd/yy)