LOYOLA UNIVERSITY CHICAGO

Preparing people to lead extraordinary lives

TLSC 450: Teaching and Learning in Secondary Science
Sequence 6: Integrating Content, Cultures and Communities
Teaching, Learning, and Leading with Schools and Communities
School of Education, Loyola University Chicago
Academic Year: Fall Semester 2016

Instructor Information

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Office hours: Before and after class or by appointment

Module Information
- Dates: October 17 – November 4, 2016
- Days: Monday, Wednesday, Friday
- Time: 8 am – 12 noon
- On Campus Location: Information Commons Room 112
- School Site: Nicholas Senn High School, 5900 N Glenwood Ave, Chicago, IL 60660

Module Description
Teacher candidates further develop their understanding and application of designing instruction in area of specialization. Teacher candidates observe classrooms that utilize UbD and interview a cooperating teacher educator about his/her use of UbD as a framework for teaching. Candidates focus on connecting content to students' lives an interview two to three students to ascertain how they make meaning out of context in connection with their lives. Teacher candidates then observe how teachers include reading, writing, listening, speaking, and viewing in their instruction of content and how they differentiate instruction using suggested strategies in the UDL guidelines checklist. Teacher candidates co-plan with cooperating teacher educators to develop a five lesson content unit and pre-formative, and post assessments to assist in better understanding student learning and the strengths and weaknesses of the instructional strategies chosen, making adjustments to instruction based on pre-and formative assessments, teacher candidates implement the five lesson content area units with the cooperating teacher educator.   Candidates administer the post assessment and analyze the data to understand the teaching and learning of the specific content. Finally, teacher candidates administer short survey to get stinky back on the series of lessons, including what worked well, what could've been improved, and what suggestions they have for future lessons, and they identify research articles to assist them in strengthening their areas for growth.

Module Goals

Essential Questions:

- How does backward design facilitate deep learning of content and skills?
- How do students most effectively acquire skills within a specific content area?
- How can the use of data facilitate students' acquisition of content and skills?
- How can students utilize technology to support and deepen their learning in a particular content area?
- How do students use their literacy skills to acquire knowledge and skills within a content area?
- How do student become actively engaged in learning and self-assessment?

As a part of this module, candidates will understand that effective educators:

- Use research and evidence based practices to design instruction that included the alignment of goals, objectives, assessments and instructional strategies to meet the individual needs of students.
- Use data to drive instruction and assess teaching and learning effectiveness.
- Apply deep understanding of both content and pedagogy to provide the developmentally appropriate instruction to all students.
- Explicitly integrate the teaching of reading, writing, communication and technology across content areas.

As a part of this module, candidates will:

- Incorporate research and evidence based practices into the design of instruction (e.g. UbD, IB, SIOP, and UDL). (5S;9A) (IB)
- Use standards based curriculum maps (e.g. UbD) to design units and lessons to meet the needs of diverse learners. (3Q; 3I) (IB)
- Design a standards based instructional unit that uses backward design (e.g. UbD) to align objectives and assessments and instructional practices based on high expectations for each students' learning and behavior. (3H; 3I) (IB)
- Select relevant instructional content, materials, resources and strategies for differentiated and universally designed instruction. (3Q;5O) (IB)
- Use assessment strategies and devices that are non-discriminatory, and take into consideration the impact of disabilities, methods of communication, cultural background, and primary language on measuring knowledge and performance of students. (7R) (IB)
- Use data to differentiate assessments to meet the needs of diverse learners. (1H;3J;5P) (IB)
- Monitors and adjusts strategies in response to qualitative feedback from students and student performance. (3M;5J;5P) (IB)
- Analyze and use student information to design instruction that meets the diverse needs of students and leads to ongoing growth and achievement. (1H) (IB)
- Use data to plan for differentiated instruction to allow for variations in individual learning needs. (3J) (IB)
- Make data driven decisions using assessment results to adjust practices to meet the needs of each student (5P) (IB)

- Use assessment data, student work samples, and observations from continuous monitoring of student progress to plan and evaluate effective content area reading, writing, and oral communication instruction. (6H)
- Utilize a variety of technological tools and skills to support literacy instruction and personal communication skills, including but not limited to computers, cameras, interactive web sites, blogs, online research. (2F;2L;2O;5N;5O;9S;9T)

IDEA Objectives

As a part of this experience, candidates will:
- Gaining factual knowledge (methods)
- Learning to apply course materials
- Develop specific skills, competencies and points of view needed by professionals in the field.

Dispositions Assessment

Each course in the school of education focuses on one or more professional dispositions. Students are offered opportunities to receive feedback on their dispositional growth in the areas of professionalism, fairness and/or the belief that all students can learn. The specific disposition or dispositions for each course are listed on this syllabus and the descriptions for the expected behaviors for the disposition(s) can be found on the rubric posted in LiveText for this course.
- Participating in ongoing professional development, reading, and research in order to deepen their knowledge and expand their repertoire skills. (9O) (IB)
- Valuing and utilizing the unique identities and backgrounds of all students, families, and communities as essential assets in learning environments. (9L, 9N) (IB)
- Implementing proactive and preventative practices that represent an understanding that student behavior is shaped by complex environmental factors. (4D)
- Demonstrating that his/her personal and professional expectations and capacities influence the motivation, positive learning results and achievements of students. (4D)
- Demonstrating professionalism through personal responsibility and accountability related to attendance, participation, and communication.

Attendance

- Arrive promptly and maintain excellent attendance records. Candidates are expected to attend every module session for the scheduled duration as to maintain consistency for students and school professionals. Ask your professor and classroom teachers(s) how they wish to be contacted regarding any special circumstances. Make arrangements and notify everyone involved before a schedule absence.
- Inform your professor and classroom teachers(s) ahead of time – by phone message or e-mail if possible if you must be absent. If there is an emergency, contact your professor as soon as reasonably possible afterward. After missing a day in the module, it is necessary to contact your professor.

- Assignments are due on the dates listed on the course calendar unless permission to hand them in late is given. Be sure to follow the policies of your specific professor of each module as it related to policies on assignments.

Participation

- Candidates are expected to attend all classes, demonstrate a professional attitude and demeanor, arrive promptly to learning sites, come prepared for class with assignments and required class materials, contribute constructively to the class, integrate readings into class assignments and activities, listen respectively and incorporate and build from others' ideas. Participation will make up 10% of your final grade for each module and be determined using the rubric in LiveText.

Required Readings/Texts

- Wiggins, G. & McTighe, J. (2004). *Understanding by Design Professional Development Workbook*: Alexandria, VA; Association for Supervision and Curriculum Development.
- Other required readings and resources will be posted on the Sakai site for the course.

LiveText

All students, except those who are non-degree, must have access to LiveText to complete the benchmark assessments aligned to the Conceptual Framework Standards and all other accreditation, school-wide and/or program-wide related assessments. You can access more information on LiveText here: LiveText

Module Assignments:
 More information will be posted on the Course Calendar and in Sakai. These are subject to change.

Content Specific, Standards-Aligned Curriculum Unit – 40% of Final Grade
Candidates, with the support of their cooperating teacher, will develop a standards-based unit using the Understanding by Design framework. The unit must include a three-week learning plan that outlines the schedule of topics and learning activities. The unit must also include 2 full lesson plans that incorporate the 5E learning cycle and an upgrade of a science activity. This unit will be constructed gradually over the module.

Scientific Misconceptions Assessment Plan: 20% of Final Grade
This is a two-part assignment. First, you are to summarize research articles about science misconceptions. You are to then use this information to create a comprehensive assessment plan. The assessment plan should monitor student progress toward the unit's learning goals(s). Candidates should utilize learning goals/enduring understandings. Candidate will use and reflect on the use of the core principles of Universal Design for Learning (UDL) to

differentiate instruction and assessment based on formative assessments data. Candidates will develop measures to assess student learning before, during, and after instruction.

Closing Thoughts/ Reflective Journals - 20% of Final Grade

Candidates will complete closing thoughts at the end of each class. Candidates will also complete weekly reflective journals based on their experiences in the classroom. Journal entries should be 500 words or more in length. Journal entries should make specific reference to site observations as well as meaningful connections to course readings and discussions.

Module Participation – 10% Final Grade

Candidates are expected to consistently and actively participate in all class activities and discussions. Since much of this module takes place in schools, candidates are expected to dress and act professionally. They must arrive on time and stay for the duration of the class session. Class sessions will build directly on assigned readings; candidates must come to class having read all assigned texts and articles.

Sequence Summative Assessment – 10% of Final Grade

After completing the modules in this sequence, teacher candidates will apply their understanding of the research and practice in the area of specification to design a year long curriculum plan for a specific age or grade level or course within a particular content area that includes transdisciplinary or interdisciplinary connections and the integration of technology. The curriculum plan will include a description of the content and skill focus, required materials including text and technology resources, classroom expectations, a comprehensive assessment plan and a full description of the overall course summative assessment (s). The plan will also include a year-long calendar with unit descriptions, unit standards, and descriptions of unit summative assessments.

REQUIREMENTS FOR ALL WRITTEN ASSIGNMENTS

▫ Unless otherwise instructed, all written assignments completed outside of class must be double spaced, with one inch margins, word-processed in Times New Roman, 12 point font, and saved electronically.

▫ Unless otherwise noted, all assignments should be submitted via LiveText.

▫ Uploaded files must be named using the following format: LastName_AssignmentName.

▫ When quoting or paraphrasing course readings, please use in-text citations, also known as parenthetical citations (Author, Date, Page). You will not need a full reference list, since these are course readings.

▫ Other references should be cited where applicable, following American Psychological Association style guidelines (APA – 6th edition). Please access the APA style manual through Loyola libraries or online at http://www.apastyle.org.

- □ Written assignments will be graded for accurate mechanics and English grammar usage as well as thoughtful, pertinent, and clear content. Please take advantage of the Loyola Writing Center for assistance. http://www.luc.edu/writing/

Assignments must be submitted on time. You will be penalized for any late work. If an emergency situation arises you must e-mail me <u>before</u> the assignment is due. Technology issues do not count.

Grading Policy and Scale

The final grade is based upon the completion of course requirements, as weighted below and following this scale:

93% - 100%	A	87% - 89%	B+	77% - 79%	C+	67% - 69%	D+
90% - 92%	A-	83% - 86%	B	73% - 76%	C	63% - 66%	D
		80% - 82%	B-	70% - 72%	C-	62% and Below	F

IDEA Course Evaluation Link for Students

Each course you take in the School of Education is evaluated through the IDEA Campus Labs system. We ask that when you receive an email alerting you that the evaluation is available that you promptly complete it. To learn more about IDEA or to access the website directly to complete your course evaluation go to: http://luc.edu/idea/ and click on STUDENT IDEA LOGIN on the left hand side of the page.

Conceptual Framework Standards

The School of Education at Loyola University Chicago, a Jesuit and Catholic urban university, supports the Jesuit ideal of knowledge in the service of humanity. We endeavor to advance professional education in the service of social justice, engaged with Chicago, the nation, and the world. To achieve this vision the School of Education participates in the discovery, development, demonstration, and dissemination of professional knowledge and practice within a context of ethics, service to others, and social justice. We fulfill this mission by preparing professionals to serve as teachers, administrators, psychologists, and researchers; by conducting research on issues of professional practice and social justice; and by partnering with schools and community agencies to enhance life-long learning in the Chicago area. Our conceptual framework is described here: http://www.luc.edu/education/mission/

Diversity

This module calls on candidates to meet the needs of diverse learners, as does the previous module (6.1), but also requires them to make diversity the substance of the content that they will teach. The unit that they develop with the cooperating teacher educator and their peers will be transdisciplinary or interdisciplinary and therefore will incorporate a diversity of content. In this way, Module 6.2 offers an opportunity to apply the candidates' understanding of diversity on multiple levels.

University Policies and Information

The following policies (academic honesty, accessibility, ethics reporting hotline, and electronic communication) are applicable to all courses in the School of Education, and can be accessed through the following URL http://luc.edu/education/syllabus-addendum/

Senn High School Bell Schedule

Regular (M, T, Th, F)	Start Time	End Time	Length
Period 1	8:00 AM	8:51 AM	51 min
Period 2	8:55 AM	9:46 AM	51 min
Period 3	9:50 AM	10:41 AM	51 min
Period 4	10:45 AM	11:36 AM	51 min
Period 5	11:40 AM	12:31 PM	51 min
Period 6	12:35 PM	1:26 PM	51 min
Period 7	1:30 PM	2:21 PM	51 min
Period 8	2:25 PM	3:16 PM	51 min