TLSC 350: Teaching and Learning in ECSE: Integrating Content-Area Instruction in Science, Social Studies, and Technology
Sequence 6: Integrating Content, Cultures and Communities

Teaching, Learning, and Leading with Schools and Communities
School of Education, Loyola University Chicago
Spring Semester 2014

Instructor Information
Name: Erin Horne
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Module Information
Dates: February 11 – April 3, 2013
Days: Tuesdays & Thursdays
Times: 8:00 – 12:30
On-Campus Location: Sullivan Center Room 201
School-Site Location: The Frances Xavier Warde School, 120 S. DesPlaines St., Chicago, IL 60661

Module Description
TLSC 350 is the second of two integrated, field-based modules completed by ECSE program candidates during sequence 6 of the TLLSC Program Continuum. This module provides the framework for the integration of science, social studies, technology, and literacy in early elementary school. It provides candidates with experience in the instructional methods, materials, and curricula for teaching the sciences and social studies and is designed to prepare teacher candidates to apply their prior learning in sequence 1-6 to experiences in integrating the content areas with cultural/community contexts. Candidates will develop their skills in addressing the needs of all elementary learners while addressing the needs of individual learners in multicultural and multilingual contexts. The module is designed to develop the knowledge, skills, and dispositions to not only effectively teach social studies, science, and literacy at the elementary level, but to integrate these areas with literacy and utilize developmentally appropriate technology throughout. This module directly reflects the curricular emphases of the National Science Teachers Association, the National Council for the Social Studies, the IL State Board of Education, and the International Baccalaureate (PYP).

During TLSC 350, teacher candidates work with early elementary teachers to develop a transdisciplinary/interdisciplinary curriculum unit which integrates science and social studies with literacy and incorporates developmentally appropriate technology resources. The unit is assessed through a structured inquiry project. Teacher candidates use pre- and formative assessments to differentiate instruction and assessment to meet the learning and language needs of students. In
conjunction with the cooperating teacher educator, candidates administer a post-assessment and analyze data from the instructional unit to identify areas for growth. Teacher candidates apply their understanding of research and practice by integrating science, social studies, and technology standards across the PK-2 continuum, using a backward design approach to develop assessment activities and the core of an interdisciplinary unit that (upon moving to sequence 7) they will expand, incorporating additional science and social studies content with along with mathematics, and deliver in an elementary classroom during semester one of a year-long internship.

Key Learning Objectives for TLSC 350

Working in a coteaching setting, teaching candidates will experience teaching a social or science inquiry unit using the Common Core State Standards or Next Generation Science Standards. Through their experiences in this module, candidates will actively engage with resources which enhance knowledge, comprehension, application and evaluation of appropriate strategies and models for the teaching of science and social studies. In TLSC 350 candidates will:

1. Develop and demonstrate an understanding of the various disciplines that comprise science and social studies and the content knowledge in early elementary-aged students that stems from these disciplines;

2. Develop awareness and demonstrate knowledge of the following areas and their implications for both the development of teachers/students and for teaching:

   **Social Studies:**
   - Candidates’ roles as democratic citizens and their definition of democratic citizenship
   - Opportunities to develop global awareness
   - Knowledge and understanding of the ways in which we experience and participate in the civic world (school, community, society);

   **Science:**
   - The systematic search for patterns using scientific processes and forms of assessment (Observation and inference, measurement, prediction and hypothesizing, data collection and analysis).
   - Applying knowledge of learning and developmental theory (information processing theory in particular) to the understanding of students’ learning/memory mechanism and instructional implications for diverse students
   - Techniques for promoting meaningful science learning in a problem-solving, active approach

   **Technology:**
   Students will demonstrate knowledge and application of technology as tools in the learning process and integrate computers as a functional aspect of teaching and learning.

3. Observe, learn, practice, and implement pedagogical techniques, grounded in the disciplines of science and social studies.

4. Explicitly link science and social studies teaching to the teaching of literacy for children in grades K-2.

5. Explore evidence-based approaches to the instruction of science and social studies, including (but not limited to): inquiry-based instruction, discrepant event inquiry, integration of children’s literature in the social studies, concept attainment, multicultural education and the use of current events in social studies.
instruction. Evidence of these approaches would include students identifying real questions into the learning; students having opportunities to utilize more varied learning styles; students having experiences to collaborate on the project; and an acknowledgement of students’ “funds of knowledge”.

7. Develop skills needed to review various instructional materials for validity and appropriate pedagogy including textbooks, Internet sites, and computer-based (and other) technologies.

8. Explore the content, instructional implications, and interrelatedness of content area standards in science, social studies, and technology, including:

<table>
<thead>
<tr>
<th>PK through 13</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>All</td>
<td>The six International Baccalaureate PYP transdisciplinary themes of global significance</td>
<td>K-2-ETS1 Engineering Design</td>
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<tr>
<td>Science</td>
<td>IL Early Learning and Development Standards 11 through 13</td>
<td>K-PS2 Motion and Stability: Forces and Interactions</td>
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<td>K-PS3 Energy</td>
<td>1-LS1 From Molecules to Organisms: Structures and Processes</td>
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<td></td>
<td>K-LS1 From Molecules to Organisms: Structures and Processes</td>
<td>K-ESS2 Earth's Systems</td>
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<td>K-ESS3 Earth and Human Activity</td>
<td>K-ESS3 Earth and Human Activity</td>
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<tr>
<td>Social</td>
<td>IL Early Learning and Development Standards 14 through 18</td>
<td>IL Early Learning Standards for K-Stage A</td>
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<tr>
<td>Studies</td>
<td>Illinois Social Science Standards for Grades 1 and 2 - Stage A</td>
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<tr>
<td>Technology</td>
<td>National Educational Technology Standards for Students</td>
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Candidates will explore the following Essential Questions about teaching during this module:

- What does it mean to be a responsible citizen in the world?
- What is social justice?
- What is international-mindedness?
- How does serving our local community have an impact on the international community?
- How do we know what we know? What is worth knowing?
- How are academic disciplines related to one another?

Throughout this module, candidates will continue to develop an understanding that effective educators:

- Reflect and carry out the School of Education’s mission of professionalism in service of social justice in the school and the community by promoting human rights, reducing inequalities, and increasing the empowerment of society’s most vulnerable groups.
- Apply knowledge of policy and local, state, and national educational contexts to advocate with and for students and families.
Maintain and utilize global perspectives and international-mindedness when engaging in teaching, learning and leading, including the awareness and application of the social, cultural, inter-cultural and linguistic facets of student achievement.

Candidates will be evaluated on the evidence that they demonstrate acceptable progress on the following knowledge and skill indicators of effective teaching:

- Utilize social participation structures, narrative, and questioning techniques consistent with those of their students. (3K)
- Provide opportunities to engage in rigorous inquiry-based authentic intellectual work. (3H, 5I) (IB)
- Promote critical thinking and problem solving within the context of their discipline and across disciplines. (3H, 5I) (IB)
- Apply strategies that address gaps in students’ skills required for knowledge attainment while also recognizing and accounting for students’ prior knowledge. (1H, 1I, 1L, 3I, 3J, 3K, 3M, 3P, 5I)
- Empower students by providing opportunities to challenge the status quo and inequalities.
- Incorporate verbal and written discourse that is stereotype-free, person first, and acknowledges and honors the inherent equality among diverse learners and communities. (9I)
- Communicate effectively with a wide range of educational professionals, parents and guardians, as well as community members and organizations to benefit student development. (8H, 8I, 9L) (IB)
- Collaborate with a wide range of professionals and community members to provide an appropriate and equitable education for students. (8H, 8I, 8S, 9F, 9N) (IB)
- Actively listen to better understand the needs of others. (8R)
- Discern the most appropriate actions needed to serve the best interests of diverse students and families. (8H, 9Q)
- Plan instruction to support students’ structured inquiry into global issues to inspire inter-cultural awareness and international mindedness. (2K) (IB)
- Design authentic assessments and rubrics to measure the multiple facets of student achievement, including social, cultural, inter-cultural and linguistic. (IB)
- Involve students in self-reflection and self-assessment in the various areas of student achievement to support identity exploration. (7L) (IB)
- Collaborate to build and sustain a classroom and school environment that incorporates and values cultural, inter-cultural, linguistic and global diversity and issues. (1K, 7M, 8J) (IB)
- Engage in different ways of knowing within or across various disciplines. (2J) (IB)
- Incorporate the fine and performing arts into transdisciplinary/interdisciplinary units of instruction. (IB)

**IDEA Objectives:**

- Gaining factual knowledge (methods)
- Learning to apply course materials
- Developing 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.

- demonstrating that teaching is a complex practice with inherently political and ethical implications (9F)
- engaging in advocacy efforts grounded in ethical convictions that promote social justice and affect policy design and implementation. (9Q) (IB)
- valuing diversity and advocating for all students, particularly those from populations that are historically disenfranchised, underserved and/or overrepresented (including, but not limited to race, ethnicity, culture, language, SES, immigration status, exceptionality, ability, sexual orientation, gender, gender identity). (1A, 9F, 9R) (IB)
- valuing and promoting curiosity, creativity, and life-long learning in students. (IB)
- demonstrating the critical importance and need for teacher leadership in and across classrooms, schools, districts, communities, and in local, national and international educational organizations. (IB)

Grading Policy & Scale:
The final grade is based upon the completion of course requirements, as weighted above and following this scale:

- 93% - 100% A
- 90% - 92% A-
- 87% - 89% B+
- 83% - 86% B
- 80% - 82% B-
- 77% - 79% C+
- 73% - 76% C
- 70% - 72% C-
- 67% - 69% D+
- 63% - 66% D
- 60% - 62% D-
- Below 60% F

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 teacher(s) how they wish to be contacted regarding any special circumstances. Make arrangements and notify everyone involved before a scheduled absence.
- Inform your professor and classroom teacher(s) ahead of time – by phone message or email 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 of the module, it is necessary to contact your professor.
• Assignments are due on the dates listed on course syllabi unless permission to hand them in late is given. Be sure to follow the policies of your specific professor of each module as it relates to policies on assignments.

Module Assignments

• **Module Participation: 15% of final grade**
  ○ Candidates are expected to consistently and actively participate in all class activities in discussions. Since much of this module takes place in a school, 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, as well as completing a reader response.

• **Transdisciplinary/Interdisciplinary Curriculum Unit: 40% of final grade**
  ○ Teacher candidates develop a science or social studies transdisciplinary, interdisciplinary or disciplinary unit with interdisciplinary connections, including the arts, science/social studies, literacy and technology standards.

• **Lesson Implementation and Reflection: 15% of final grade**
  ○ Teacher candidates will be observed for three lessons (5% each) taught during the curriculum unit. Candidates should submit a detailed lesson plan for each of these three lessons. After the lesson, candidates will submit a reflection on lesson implementation. Post reflection is available on Sakai.

• **Digital Presentation: 20% of final grade**
  ○ Teacher candidates use their analysis of their unit, samples of student work and further research to develop a digital presentation (ie. PowerPoint, Prezi, etc.) to present to peers, co-teacher educators, other school professional personnel and university faculty. The digital presentation will focus on lessons learned from transdisciplinary teaching with a global framework. Candidates should include a self-assessment of the unit using the LUC SOE conceptual framework and IB criteria. The IB Criteria to assess a unit includes the following: Does the nature of the students’ inquiries develop over time; whether they are, in fact, asking questions of more depth, which are likely to enhance their learning substantially? Are the students are becoming aware that real problems require solutions based on the integration of knowledge that spans and connects several subject areas? Are the students are mastering skills and accumulating a comprehensive knowledge base in order to conduct their inquiries successfully and find solutions to problems? Do the students demonstrate both independence and an ability to work collaboratively? As part of the Curriculum Unit listed above, candidates will design pre, formative, and post assessments. Candidates will then reflect, formally, in writing, on the instruction after analysis of the data and identify areas to develop further.

• **Sequence Summative Assessment: 10% of final grade for TLSC 350;**
  ○ Candidates will select one of the six IB transdisciplinary themes of global significance, explore it in depth, link standards and assessments across the content areas of science, social studies, and technology in grades PK-2

Module Readings
8 hour video series—Learning Science through Inquiry by Annenberg Learner
http://www.learner.org/workshops/inquiry/videos.html#

“How to Read the Next Generation Science Standards” Published on Next Generation Science Standards

“The Power of Documentation” by Hilary Seitz by the National Association for the Education of Young Children.

“The Evidence Base for Social Studies: Inquiry-Based Learning” Ohio State Board of Education,

School of Education Policies and Information

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.

Technology
Teacher candidates are expected to use technology in the preparation of their work for this module, but are also expected to incorporate it into their lessons that they prepare for students when appropriate. Candidates will likely use the resources available from the International Baccalaureate site: www.ibo.org. Some of the technologies they will use to manage their own learning will include Blackboard and LiveText.

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

Academic Honesty: Academic honesty is an expression of interpersonal justice, responsibility and care, applicable to Loyola University faculty, students, and staff, which demands that the pursuit of knowledge in the university community be carried out with sincerity and integrity. The School of Education’s Policy on Academic Integrity can be found at: http://www.luc.edu/education/academics_policies_integrity.shtml. For additional academic policies and procedures refer to: http://www.luc.edu/education/academics_policies_main.shtml
**Accessibility:** Students who have disabilities which they believe entitle them to accommodations under the Americans with Disabilities Act should register with the Services for Students with Disabilities (SSWD) office. To request accommodations, students must schedule an appointment with an SSWD coordinator. Students should contact SSWD at least four weeks before their first semester or term at Loyola. Returning students should schedule an appointment within the first two weeks of the semester or term. The University policy on accommodations and participation in courses is available at: [http://www.luc.edu/sswd/](http://www.luc.edu/sswd/)

**Harassment (Bias Reporting):** It is unacceptable and a violation of university policy to harass, discriminate against or abuse any person because of his or her race, color, national origin, gender, sexual orientation, disability, religion, age or any other characteristic protected by applicable law. Such behavior threatens to destroy the environment of tolerance and mutual respect that must prevail for this university to fulfill its educational and health care mission. For this reason, every incident of harassment, discrimination or abuse undermines the aspirations and attacks the ideals of our community. The university qualifies these incidents as incidents of bias.

In order to uphold our mission of being Chicago’s Jesuit Catholic University— a diverse community seeking God in all things and working to expand knowledge in the service of humanity through learning, justice and faith, any incident(s) of bias must be reported and appropriately addressed. Therefore, the Bias Response (BR) Team was created to assist members of the Loyola University Chicago community in bringing incidents of bias to the attention of the university. If you believe you are subject to such bias, you should notify the Bias Response Team at this link: [http://webapps.luc.edu/biasreporting/](http://webapps.luc.edu/biasreporting/)
<table>
<thead>
<tr>
<th>Week</th>
<th>Focus</th>
<th>Candidate Activities with Cooperating Teacher Educator</th>
<th>Readings</th>
<th>Assignments Due</th>
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<tbody>
<tr>
<td>#1 2/11 &amp; 2/13</td>
<td>Foundations of NGSS observing practice</td>
<td>Observe content area classrooms Review themes, standards and concept mapping</td>
<td>Tuesday: Video 1 Inquiry what is it and why</td>
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<td>#2 2/18 &amp; 2/20</td>
<td>Understanding the classroom contexts and dynamics</td>
<td>Observe and assist in classroom continue planning unit Administer diagnostic/pre assessment for next week’s unit</td>
<td>Tuesday: Video 3 and 4 Process of Inquiry; Designing the Exploration</td>
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<td>#3 2/25 and 2/27</td>
<td>Teaching lessons with cooperating teacher educator</td>
<td>Teach lesson 1 complete self-reflection receive teacher feedback</td>
<td>Tuesday: Inquiry Unit Due</td>
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<tr>
<td>#4 3/4 and 3/6</td>
<td>NO CLASS</td>
<td>NO CLASS</td>
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<tr>
<td>#5 3/11 and 3/13</td>
<td>Teaching lessons with cooperating teacher educator</td>
<td>Teach lesson 2 complete self-reflection receive teacher feedback</td>
<td>Tuesday Watch video 5 Collecting Data... Thursday</td>
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<tr>
<td>#6 3/18 and 3/20</td>
<td>Teaching lessons with cooperating teacher educator</td>
<td>Teach lesson 3 complete self-reflection receive teacher feedback</td>
<td>Tuesday Watch video 7 Assessing Inquiry</td>
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<tr>
<td>#7</td>
<td>3/25 and 3/27</td>
<td>Data and self reflection</td>
<td>Teacher candidates analyze data from the instructional unit and reflect on the experience of teaching the unit to identify areas for growth.</td>
<td>Thursday</td>
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<td><strong>Tuesday</strong></td>
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<td><strong>Thursday</strong></td>
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<td>#8</td>
<td>4/1 and 4/3</td>
<td>Share digital presentation with coteachers</td>
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<td>Tuesday</td>
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<td><strong>Digital Presentation Due</strong></td>
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