Dayton Area Lesson Study Group
Guidelines for Graduate Credit

Course Title: Mathematics Lesson Study
Term: Spring 2014
Course Number: ED 6900
Credit Hours: 4 semester credit hours

Instructors of Record:
- Dr. Ann Farrell, WSU, Mathematics Education, 120 and 213 MM Bldg,
  Dept of Mathematics and Statistics, ann.farrell@wright.edu, 937.775.2193 or 2785.
- Dr. Sachiko Tosa, WSU, Physics Education, Visiting Assistant Professor, Dept of Physics, sachiko.tosa@wright.edu

Goals:
- Increase knowledge about mathematics, teaching mathematics and students’ mathematical thinking.
- Plan effective math lessons based on research on student thinking, engagement, and differentiation.
- Use the Lesson Study process, which involves collaborative and systematic planning, conducting, observing, analyzing and revising of research lessons.

Expectations:
- Earn: 4 semester graduate credit hours in education at Wright State University ($250 per credit hour)
- Participate: In lesson study team meetings between Sept 2013 and May 2014 with substitute teachers and stipends provided by the Ohio Dept of Education MSP and Ohio Board of Regents ITQ grants; meeting time will be used for planning the unit and research lessons, studying curriculum materials, and for observing and debriefing the research lessons. Meet with lesson study team outside of regular school hours.
- Participate: As a team, share your lesson study results and reflections with other teachers at your school and other schools.
- Participate: In confidential online data collection surveys.
- Submit: At the end of each lesson study cycle, respond to the attached questions. Include lesson plans and photos of student work.

Course Requirements:
Letter grades will be based on quality of the paper, participation at meetings and in data collection surveys. The following table shows the minimum requirements for grades of A, B, C:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Participation in meetings</th>
<th>Quality of Paper</th>
<th>Surveys</th>
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<tbody>
<tr>
<td>A</td>
<td>greater than 90%</td>
<td>All prompts are addressed. Responses indicate thoughtful reflection. Writing meets high standard for mechanics of grammar, spelling, organization. Papers are submitted by the deadline: <strong>January 17 for Lesson Cycle 1 AND April 17 for Lesson Cycle 2.</strong></td>
<td>Yes</td>
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<tr>
<td>B</td>
<td>80-90%</td>
<td>A majority (80-90%) of the prompts are addressed. Responses indicate thoughtful reflection. Writing is above average for grammar, spelling, organization.</td>
<td>Yes</td>
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<tr>
<td>C</td>
<td>70-80%</td>
<td>Most of the prompts are addressed. Writing is above average.</td>
<td>Yes</td>
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Accessing Grades: Letter grades will be posted online on WINGS [http://www.wright.edu](http://www.wright.edu)
Summary Paper for Each Lesson Study Cycle

Respond to the following prompts. Your paper should be useful to you when you teach the topics again in the future and when you want to describe your lesson study work to other teachers. Save your paper in electronic format and email it to us. The document should include:

- A typed paper with your responses to the prompts below. Use complete sentences and paragraphs. Email your papers to both Dr. Tosa and Dr. Farrell.
- Include the lesson plans for the original and revised lesson.
- For each lesson, paste into your document photos of three to five student work samples with your comments about each one.

At the beginning of your paper state your name, school, grade level and subject area(s). Please name each file using your name, school and the date submitted, like this: Edison,Tom_FindlayElem_15Jan2013.

Phase 1: Selecting and Researching the Topic

Discuss the topic selected for the research lessons in this cycle or cycles. Address the following:

- State the topic, subject area and grade level.
- Why was this topic chosen?
- Why is this topic important in the curriculum?
- What new learning did you experience about content while you explored this topic?

Phase 2: Developing the Research Lesson

Discuss the significant milestones that occurred during the development phase. Address the following:

- What is it about this topic that you want students to learn? (You may quote district or state academic standards.)
- What did you want to learn about students’ understanding or about instruction during this lesson study cycle?
- What new learning did you experience during the lesson development phase?

Phase 3: Teaching, Observing, Discussing and Revising the Research Lessons

- Summarize the most significant events that you observed in the first research lesson in this cycle.
- Include the lesson plan for the first research lesson in this cycle.
- What did you learn from the first research lesson and post-lesson discussion about students’ understanding?
- Include three to five student work samples from the original lesson. On each work sample, write your comment about what you find interesting in the work.
- Describe each change that was made to the lesson plan and state the rationale for each change.
- Include the lesson plan for the revised lesson in this cycle.
- Include three to five student work samples from the revised lesson. On each work sample, write your comment about what you find interesting in the work.
- What was the impact of each of the changes to the lesson plan? Was student learning affected? If so, how?
- What changes would you make to the revised lesson plan?
- Do you have any other comments about observing and discussing the lessons in this cycle?

Phase 4: Reflecting, Consolidating and Sharing

- What changes have you noticed in your teaching that you would attribute to your participation in lesson study? (Please respond about both content and instructional methods.)
- What changes have you seen in your work with your colleagues as a result of your participation in lesson study?
- Include any other comments or suggestions you have about lesson study.