COURSE MATERIALS AND REFERENCES


Supplies to add to HOT kit: calculator, scissors, tape, glue stick, markers

Internet Resources: Principles and Standards for School Mathematics, NCTM, 2000

http://standards-e.nctm.org (free for NCTM members)

Sunshine State Standards http://www.fldoe.org/bii/curriculum/sss/

I. COURSE PURPOSE

This course is required in the undergraduate programs in Elementary Education and Special Education. The course provides for the development of knowledge and skills necessary to prepare students to assume roles as teachers of mathematics in elementary and special education classes. Such a course is recommended by the National Council of Teachers of Mathematics (NCTM) in its Guidelines for the Preparation of Teachers.

II. COURSE GOALS

Know How and also Know Why. That is, you should focus on discovering the reasons behind the actions in mathematics.

The vision of mathematics learning espoused by the National Council of Teachers of Mathematics assumes the following:

“Knowing mathematics means being able to use it in purposeful ways. To learn mathematics, students must be engaged in exploring, conjecturing, and thinking rather than only in rote learning of rules and procedures. Mathematics learning is not a spectator sport. When students construct personal knowledge derived from meaningful experiences, they are much more likely to retain and use what they have learned. This fact underlies teachers’ new roles in providing experiences that help students make sense of mathematics, to view and use it as a tool for reasoning and problem
Thus, the purpose of this course is to provide opportunities for preservice teachers to examine their understanding of various mathematics topics and to construct a vision of mathematics that considers the goals and assumptions of the current reform movement in mathematics education. Content, methods, and materials for teaching elementary school mathematics will be examined with a focus on Geometry, Measurement, and Probability & Statistics.

“As from the perspective of attaining mathematical competence, teaching elementary mathematics does not mean bringing students merely to the end of arithmetic or to the beginning of “pre-algebra.” Rather it means providing them with a ground work on which to build future mathematics learning” (p. 177). Ma, L. (1999). Knowing and Teaching Elementary Mathematics. Mahweh, NJ: Lawrence Erlbaum Associates.

As a prospective elementary teacher it is important to:

- Develop a conceptual understanding of the mathematics topics.
- Think about the kinds of mathematics students can learn through manipulatives.
- Think about the mathematics activities from the standpoint of a teacher.

### IV. COURSE OBJECTIVES

Upon completion of this course, students will have demonstrated:

1. Knowledge of the major goals and characteristics, including scope and sequence, of elementary school mathematics programs, and aspects of theories of learning as applied to the planning and instruction for the teaching of elementary school mathematics.
2. Knowledge of the current developments in education, including research that may affect the elementary school mathematics curriculum, with emphasis on the Florida Mathematics Framework as a part of the Sunshine State Standards.
3. Knowledge of algebraic thinking and problem-solving processes/strategies; properties of geometric concepts and principles; measurement concepts and principals; concepts and principles of probability and statistics; and the application of these concepts in the teaching of elementary school mathematics.
4. Knowledge of effective uses of concrete manipulatives in both instruction and assessment.
5. Knowledge of the Sunshine State Standards for school mathematics, especially as applied to the elementary curriculum and as applied to the areas of geometry, measurement, and data analysis and probability.
6. Knowledge of instructional methods that engender critical thinking in students, and evidence that the candidate has engaged in critical thinking in the completion of coursework.
7. Knowledge of the relationship between the learning environment and student learning; demonstrates understanding of appropriate accommodations for the differing needs and diversity of students.
8. Ability to develop learning experiences that require students to demonstrate a variety of applicable skills and competencies.
9. Ability to use a variety of assessment tools to monitor student progress, achievement and learning goals.
10. Knowledge of appropriate instructional methods and strategies for individuals and groups, using knowledge of first and second language acquisition processes; knowledge of instructional models, methods, and strategies. (ESOL Standards 5, competencies 5, 6).
11. Knowledge of current and effective ESOL teaching methodologies in planning and delivering instruction to ELLs; knowledge of instructional models, methods, and strategies. (ESOL Standard 6, competencies 5, 6)

12. Ability to apply content-based ESOL approaches to instruction; knowledge of instructional methods and strategies (ESOL Standard 12, competency 6).

13. Ability to evaluate, select, and employ appropriate instructional materials, media, and technology for ESOL at elementary, middle, and high school levels; knowledge of curriculum, curriculum materials, and resources; knowledge of instructional technology (ESOL Standard 15, competencies 4, 7).

14. Ability to evaluate, adapt, and employ appropriate instructional materials, media, and technology for ESOL in the content areas at the elementary level; knowledge of curriculum, curriculum materials, and resources; knowledge of instructional technology (ESOL Standard 17, competencies 4, 7).

V. INSTRUCTIONAL DESIGN

This course will be taught through lecture, discussion, cooperative learning activities, question and answer sessions, student demonstrations, and role playing. Reading of the text is mandatory. Knowledge of content is necessary for classroom involvement in activities and discussions.

VI. COURSE REQUIREMENTS/RESPONSIBILITIES

a. Professionalism: Because this course is part of an accredited program that leads to a professional certification, students must demonstrate behavior consistent with a professional career. Failure to demonstrate such conduct will impact a student’s grade as noted in the course syllabus.

Students must:
- Attend all class meetings beginning to end.
- Be prepared with all necessary handouts, tools, and materials.
- Complete all assignments on time. See assignment policy below. Students should maintain a file of all graded assignments until after receiving an official grade notification from the registrar.
- Collaborate responsibly with colleagues in coursework.
- Participate in a professional manner in all class discussions and activities.

b. Academic Dishonesty: The University considers any form of plagiarism or cheating on exams, projects, or papers to be unacceptable behavior. Please be sure to review the university’s policy in the catalog, USFSM Undergraduate Catalog or USFSM Graduate Catalog and the USF Student Code of Conduct.

Detection of Plagiarism
http://www.cte.usf.edu/plagiarism/plag.html The University of South Florida has an account with an automated plagiarism detection service which allows instructors to submit student assignments to be checked for plagiarism. I reserve the right to 1) request that assignments be submitted to me as electronic files and 2) electronically submit assignments to Safe Assignment. Assignments are compared automatically with a huge database of journal articles, web articles, and previously submitted papers. The instructor receives a report showing exactly how a student's paper was plagiarized. For more information, go to http://www.ugs.usf.edu/catalogs/0304/adadap.htm#plagiarism.

c. Attendance: During all class sessions, the instructor will distribute an attendance sheet to be signed. It is your responsibility during class to ensure that you have signed your name and marked yourself as either “on time” (O), or “tardy” (T). If your signature is not on the sheet,
you will be marked absent. Signing the name of another individual is not permitted.

d. **Academic Disruption:** The University does not tolerate behavior that disrupts the learning process. The policy for addressing academic disruption is included with Academic Dishonesty in the catalog: USFSM Undergraduate Catalog or USFSM Graduate Catalog and the USF Student Code of Conduct. Such actions include texting, surfing the web, cell phone use, or any other disrespectful interruption of the lecture. Remember that your responsibility is to contribute to a productive learning environment. Consider the effects of your actions on you as well as others around you.

Computer use in class, especially off-task computer use, can be a distraction to other students. Students are permitted to use a computer in class, but any observance of computer use for activities not directly related to class may result in the student’s computer privilege being revoked for the remainder of the semester.

e. **Contingency Plans:** In the event of an emergency, it may be necessary for USFSM to suspend normal operations. During this time, USFSM may opt to continue delivery of instruction through methods that include but are not limited to: Blackboard, Elluminate, Skype, and email messaging and/or an alternate schedule. It’s the responsibility of the student to monitor Blackboard site for each class for course specific communication, and the main USFSM and College websites, emails, and Go Bull messages for important general information. The USF hotline at 1 (800) 992-4231 is updated with pre-recorded information during an emergency. See the Safety Preparedness Website for further information.

f. **Disabilities Accommodation:** Students are responsible for registering with the Office of Students with Disabilities Services (SDS) in order to receive academic accommodations. Reasonable notice must be given to the SDS office (typically 5 working days) for accommodations to be arranged. It is the responsibility of the student to provide each instructor with a copy of the official Memo of Accommodation. Contact Information: Pat Lakey, Coordinator, 941-359-4714, plakey@sar.usf.edu, www.sarasota.usf.edu/Students/Disability/

g. **Fire Alarm Instructions:** At the beginning of each semester please note the emergency exit maps posted in each classroom. These signs are marked with the primary evacuation route (red) and secondary evacuation route (orange) in case the building needs to be evacuated. See Emergency Evacuation Procedures.

h. **Religious Observances:** USFSM recognizes the right of students and faculty to observe major religious holidays. Students who anticipate the necessity of being absent from class for a major religious observance must provide notice of the date(s) to the instructor, in writing, by the second week of classes. Instructors canceling class for a religious observance should have this stated in the syllabus with an appropriate alternative assignment.

i. **Assignments:** All assignments must be submitted at the beginning of class on the day they are due. Assignments may only be emailed if the student is absent. Each assignment will be graded according to the assignment description in this syllabus or applicable rubric. All assignments, except for Writing to Learn, are to be double-spaced using a 12-point standard font. There are no planned extra credit assignments.

Points will be deducted for late assignments in the following manner:

- 20% of all points of the assignment are lost if not submitted in class or emailed by the beginning of class, but turned in no more than two days past the due date.
- An additional 10% will be lost each day after the second day.
- Assignments more than one week late will not be accepted without prior approval from the instructor.

j. **Non-permission to sell class notes, materials, recordings:** Students are not permitted to sell
notes, materials, tests, recordings, or any other items related to this course. The course text and ETA Kit are not subject to this policy and may be sold at the student’s discretion.

k. **CanvasUse:** This course will be making use of the my.usf web portal (Canvas) available through USF. Each student has an e-mail account through the university. Be sure that you have your NetID and a password so that you can access my.usf.edu. This is the official method that the University is using to contact you. If you routinely use a different e-mail account, be sure that you follow up and forward your messages from your campus email account to where you prefer to get your e-mail. To get onto the my.usf site be sure that you enter the following on your web browser https://my.usf.edu (note it’s https, not just the normal http) If you need a NetID be sure to have your USF ID card with you and follow the instructions. Be sure that you record your NetID and be sure that your password is something you will remember.

VII. **COURSE ASSESSMENT**

This is a professional preparation course and students are expected to behave in a manner appropriate for teachers. In addition, students are expected to participate in classroom activities in a constructive manner, exhibiting those positive traits that are expected of teachers as provided by the Accomplished Practices and the Code of Ethics.

The following represents my current thinking about the evaluation of this course. I reserve the right to make changes/adjustments as needed.

Section Exams* (3 @ varying pts each) 150
Final Exam 50
Participation – 5 points per class 65
Lesson Presentation 60
Lesson Plan Internet search – 3 @ 15 pts each 45
Journal Article Summaries – 2 @ 20 pts each 40
Assessment and Teaching Project** 60

A (4.00) 423 – 470 points  D (1.00) 282 – 328 points
B (3.00) 376 – 422 points  F (0.00) 281 points or less
C (2.00) 329 – 375 points

*The section exam(s) (at the discretion of the instructor) are each a CRITICAL TASK for this course. Students must achieve a score of 70% to pass this task. Students who score below 70% will have an opportunity to correct their work for rescoring. However, the original score will remain in the grade book. Students who do not achieve a 70% after correction of their work will not receive a passing grade in the course.

** The Assessment and Teaching Project is a CRITICAL TASK for this course and must be added to your electronic portfolio on TaskStream. TaskStream is a web-based electronic portfolio required of all students in College of Education (COE) programs. TaskStream enables students to build media-rich online portfolios showcasing learning achievements, which can be shared with peers, instructors, parents, and employers. Further, it provides a way to submit documents, called critical tasks, to instructors for feedback and assessment. The COE uses these assessments to evaluate candidate progress toward meeting standards set by the Florida Department of Education, by the faculty, and by professional organizations. Further, the COE analyzes data from the assessments and uses the data for program planning in order to ensure continuous improvement.

Once your assignment is in your portfolio, it will be assessed using a rubric. You must earn a score of 3 or better the critical task.
VIII. PREPARATION FOR EXAMS

All exams are to be completed at the scheduled time. **No make-up exams are scheduled.** The final exam will only be given on the assigned day. Please contact me in advance if you will not be able to take an exam at the scheduled time. All exams will be based on material presented in class activities, lectures, discussion, and required readings. The exams may be comprised of multiple choice, short answer, and/or essay questions.

You are permitted to use a calculator and the manipulatives kit on all exams. However, sharing of materials is not permitted. The following represents my current thinking about the exams. I reserve the right to make changes or adjustments as needed.

**Exam Format – Any combination of Matching, Multiple Choice, Short Answer, and Extended Response**

**Recommendation: READ ALL CHAPTERS.** Not all the information contained in the exams will be covered in class. You are expected to read the chapters and understand the content. If you do not understand the content, it is your responsibility to ask questions.

IX. ASSIGNMENT DESCRIPTIONS:

a. Attendance/Participation:
   - Five points can be earned for each class. To earn the full 5 points you must:
     - be on-time and stay until class dismissal
     - have necessary materials and handouts
     - fully participate in discussions and group work
   - Three absences will result in the lowering of the student’s grade by one full letter in addition to points lost for attendance.
   - Two tardies will count as one absence.
   - **Students with 4 or more absences will not receive a passing grade in the course.**

b. Lesson Presentation

On the first night of class we will form small groups, and groups will be randomly assigned a topic for a lesson presentation (data analysis/probability, geometry, measurement, or algebraic thinking). Your group is to work as a team to plan a quality lesson (USFSM format) on your topic that is approximately 40 minutes in length. Powerpoint or Active Inspire must be utilized, and you may get your lesson idea from *Teaching Children Mathematics*, your textbook, or any other quality source. Your peers will serve as your ‘students’ for the lesson. Be sure your lesson involves a problem solving component and that it clearly demonstrates the NCTM principals and standards (see your text appendix) as well as grade level expectations (SSS or CCSS) for grades 3-5. Your lesson must clearly reflect that your focus was on what you wanted your students to know, understand, and be able to do as a result of the lesson. Credit all of your resources in your lesson plan. Each class member is to receive either a paper or electronic copy of the plan (instructor’s discretion).

**Rubric for Presentations:**

1) Preparedness (20 pts) – Each member plays a significant role in the presentation. The presentation reflects that all members are prepared and have obviously rehearsed.

2) Content (20 pts) – The presentation and written lesson show a full and accurate understanding of the topic and the standard(s) being addressed. The lesson includes a creative beginning (a ‘hook’), guided and independent practice in the middle that focus on conceptual development, and a closing that reviews the lesson content. Good questions are the key to a good lesson!
3) Visual Aids & Manipulatives (10 pts) – The computer slide show (Powerpoint or Active Inspire) presents the lesson objectives and concepts accurately and conceptually, and indicates a significant effort to present the material creatively. Manipulatives are well integrated into the lesson and used efficiently.

4) Timing (5 pts) – The lesson presentation runs smoothly and is approximately 40 minutes in length.

5) Student Engagement (5 pts) – Facial expressions and body language generate a strong interest and enthusiasm about the topic in others. Group members engage with their peers and facilitate their peers’ engagement in the content.

c. Journal Article Summaries – ESSENTIAL ASSIGNMENT:
At various points in the semester, you are required to select and read a feature article from Teaching Children Mathematics that introduces a teaching idea (no older than 2000) on one of the assigned topics in this course. 2-3 page articles will not provide the type of information needed to complete this assignment. Step-by-step directions for finding articles are provided on BB under Course Documents. Each 2-3 page (Times New Roman 12pt, double-spaced) article summary should provide enough detail so that you could return to your paper years later and be able to integrate the teaching idea into your classroom. Each summary must include the following elements:

♦ A bibliographic reference (APA format) (1 point),
♦ A summary of the teaching idea. Then, written in first person (I, me, my). How could/would you use this idea in your classroom? (10 points),
♦ Specifically state how the lesson/activity helps develop students’ problem solving abilities and conceptual understanding. (2 points),
♦ How you will adapt the lesson content or procedures to help ESOL learners gain understanding. Explain ways you could accommodate your ESOL students that are specific to this lesson/activity. The 3 websites for ESOL Math Strategies that are on BB under ‘Rubrics and Resources’ will help you with this section. Papers that omit this section will be returned ungraded. (2 points)
♦ A statement of the SSS Benchmark(s) and Standard(s) addressed in the article (2 points).

The paper should provide evidence that the material has been thoroughly read and reflected upon. Explanations must be reasoned and contain specific examples as supporting evidence. The summary will also be graded for the quality of writing, spelling, and grammar (3 points). You should use no more than one quote, and the paper should flow in narrative style without subheadings. Quotes less than 40 words should be in parenthesis and be followed by (author last name, pg. ____).

Choose two of the four topics below and submit your choices on the dates they are due:
1. Geometry – Due Sept. 16
3. Algebraic Thinking – Due Nov. 18
4. Data Analysis or Probability (choose one) – Due Dec. 9

Because this journal is a print publication that is available online, it is not necessary to including the web address or date of retrieval in the bibliography. Note that the only capital letters in the article title are the first letter, the first letter of a word following a colon, or the first letter of a proper noun. The journal name and volume number are italicized. The issue number is in parenthesis and is not italicized. The first and last page numbers are listed alone without a heading. Following is a sample bibliographic reference in APA format:

Lesson Plan Internet Search
Find a lesson plan on CPALMS for 3 of the 4 topics discussed in this class. Print it out and include the lesson with this rubric and your reaction. Reaction: Is it a quality lesson based on the Florida Mathematics Standards? Be specific in your explanation. Use Appendix B in your book as a guide to help you look for specifics in the lesson. Describe the problem solving focus of the lesson. What makes this particular lesson a great lesson? Remember, just because the lesson is on the internet, doesn’t mean it is a quality lesson. If it isn’t what you think is a quality lesson based on what we have learned in class, explain what it is lacking and how it could be improved. What do you think needs to be included to make it a worthwhile lesson for students? If not stated, list the Florida Mathematics Standards addressed. Minimum requirement 1 page size 12 font. No more than 2 pages.

Rubric for a Quality Lesson

<table>
<thead>
<tr>
<th>Poor Lesson Plan</th>
<th>Mediocre lesson Plan</th>
<th>Quality Lesson Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>The lesson does not have a clear objective</td>
<td>The objectives are clear, but the evaluation does not meet the objective</td>
<td>The objectives are clearly stated and the evaluation meets each objective.</td>
</tr>
<tr>
<td>The lesson does not have an anticipatory set to get the students interested in the topic</td>
<td>The lesson has a short anticipatory set that partially applies to the lesson</td>
<td>The anticipatory set is great. The students will become interested and curious to learn more about the topic planned in the lesson.</td>
</tr>
<tr>
<td>The lesson does not involve any cooperative group work</td>
<td>The lesson does not involve any cooperative group work.</td>
<td>The lesson involves cooperative group work.</td>
</tr>
<tr>
<td>The lesson does not engage the students. The students are not making connections and building on what they already know.</td>
<td>The lesson somewhat engages students, however, they are not encouraged to make very many connections with what they already know.</td>
<td>The students are engaged and are able to make many connections with what they already know.</td>
</tr>
<tr>
<td>The lesson does not show how to apply this topic in the real world.</td>
<td>The lesson shows how to use the topic in the real world.</td>
<td>The lesson shows how to use the topic in the real world. The lesson also encourages the students to think of other ways they will be able to use the information from the topic.</td>
</tr>
<tr>
<td>The lesson does not have any higher order thinking question in the evaluation.</td>
<td>The lesson has higher order thinking questions in the evaluation.</td>
<td>The lesson has many higher order thinking questions during and as a follow-up evaluation of the lesson.</td>
</tr>
<tr>
<td>The lesson does not allow the students to use their creativity.</td>
<td>The lesson does not allow the students to use their creativity.</td>
<td>The lesson allows the students to use their creativity.</td>
</tr>
<tr>
<td>The lesson is a drill and encourages students to learn by memorization only.</td>
<td>The lesson has some drill practice but also includes some problem solving</td>
<td>The lesson is mainly problem solving; allowing students to apply what they learned.</td>
</tr>
</tbody>
</table>

f. Assessment and Teaching Project (A & T) – CRITICAL TASK: A complete description/rubric for this assignment is included at the end of the syllabus. This rubric is for the purpose of assigning a score toward a course grade, and is separate from the rubric used to assess the assignment on TaskStream. A copy of the description/rubric must be printed and attached to the front of the assignment when it is turned in.
You are required to conduct an assessment and teaching project that follows the guidelines below:

1. **Select the Student(s)**
   - Choose an individual child or small group of children (max of 3), in grades 2 – 6.
   - If you choose multiple children, they must be in the same grade.
   - You may work with your own child, a neighbor’s child, a relative, or a child at a local school.

2. **Select a Mathematics Topic from Geometry, Measurement, Algebraic Thinking or Data Analysis and Probability.**

3. **Select a SSS Benchmark/Objective based on the grade level of the student(s)**

4. **Develop an Assessment Plan and Enact the Plan with a Student**
   - Select one age/ability-appropriate activity that supports the conceptual development of the SSS you selected. You may use the *H.O.T. Strategies* Kit, your book, *Teaching Children Mathematics*, the Illuminations website, or other high-quality mathematical resource (just because it’s on the internet doesn’t mean it is high-quality).
   - Credit your source.
   - A formal lesson plan is not required for this phase of the project.
   - The activity must be hands-on and use a manipulative.
   - Limit this assessment activity to 20-30 minutes.
   - Investigate your student’s conceptual understanding or misunderstanding of the topic through the exploration of the activity.
   - Use the information you glean about the student’s level of conceptual understanding and/or areas of misunderstanding to plan the teaching lesson. Carefully observe your student’s work and ask probing questions to help you understand his/her mathematical understandings. Your goal is not to simply encourage right responses and discourage wrong ones, but to ask questions that will get at the students’ thinking strategies even if you detect inappropriate strategies being used.
   - Although teaching and learning will occur in both phases of this assignment, the primary purpose of the first interaction with the child is assessment, and the primary purpose of the second interaction is teaching a lesson tailored specifically for the interviewed child(ren) to address their learning needs. In both phases of the project, focus on determining what students (mis)understand and how you know.

5. **Write and Submit an Assessment Report**
   - Report length: 1-2 pages per child assessed, double spaced, 12 pt font.
   - Include in the report:
     - Basic information about the child: pseudonym, age, grade level, level of math
achievement (high, middle, low), other pertinent information.
- Description of the activity used to assess the child.
- Child’s conceptual understandings and misunderstandings revealed through the assessment activity and how that will guide the planning of your teaching lesson.
- Other observations about the child that will influence the planning of teaching the lesson.
- Learning goals of the teaching lesson.
- The assessment report will be read by the instructor who will provide feedback but no grade. The assessment report will be resubmitted later along with the teaching report for grading.

6. **Develop a Plan for the Teaching Lesson**
   - Develop a lesson plan (USFSM format) that will be the basis of your teaching lesson.
   - Be sure to include ESOL accommodations, even if you do not plan to conduct your lesson with an ESOL child.
   - The lesson plan should be designed to meet the needs of the student(s) you assessed to improve his/her conceptual understanding. The lesson must reflect the goals you established from your assessment of the student.
   - Based on the grade and/or ability level of your participant(s), tailor the activity to adjust for time and ensure that you have the opportunity to assess the student’s understanding. Plan for this interview/lesson to last between 45 and 50 minutes.
   - The lesson must be hands-on and use one or more manipulatives.
   - As you develop your plan, consider the items listed in the report section of this assignment.

7. **Conduct the Teaching Lesson**
   - Both interviews (assessment and teaching) should be audio taped (or videotaped) so that you have a record of the participant’s responses and activity. Consider placing this tape (as well as the entire study) in your “teaching portfolio” as you complete your program of study. Be sure to obtain any necessary permission before audio or videotaping any child other than your own. I will not collect the audio or videotapes.

8. **Write and Submit a Report about the Teaching Lesson**
   As soon as possible after teaching the lesson, prepare a *narrative-style* report discussing the child’s mathematical activity and thinking (i.e. their responses). Include the following:
   - Description of the lesson in the body of the report with the full lesson plan attached to the report.
   - Child’s age/grade and other pertinent information.
   - The topics that will be assessed in the report include:
     a) What were the learning objectives of the lesson?
     b) Describe in narrative style the procedure for conducting the lesson, including at least one modification you would make for ESOL students.
     c) Describe/name the manipulative materials used in the lesson.
     d) Why was the activity you selected a worthwhile mathematical task?
     e) How did the lesson you planned serve to advance/improve your student’s conceptual understanding?
     f) How did the discourse contribute to the child’s understanding of mathematics?
     g) How did the learning environment impact the experience?
     h) How did you anticipate your student(s) would respond/react to the lesson? How did this compare to actual responses/reactions?
i) What observations were made of the child’s mathematical understanding? What explanations were given? (Sample of student’s work will be helpful.) What diagrams/figures, if any, were made by the child?

j) What explanations/conclusions can you make about their mathematical understanding after conducting the lesson?

k) What have you learned about teaching and assessment from this experience?

The report should be typed, double-spaced, Times New Roman 12 point font, 1 inch margins, and **no more than** five pages in length (not including the lesson plan). **Resubmit the original assessment report along with the teaching report for grading.**

9. **Due Dates**

<table>
<thead>
<tr>
<th>Report</th>
<th>Due Date</th>
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<tbody>
<tr>
<td>Assessment Report</td>
<td>Oct. 07</td>
</tr>
<tr>
<td>Teaching Report</td>
<td>Nov. 11</td>
</tr>
</tbody>
</table>

10. **Grading Rubric:**

54 – 60 All required elements/topics are present and the specified format is followed. The assessment report, teaching report, and lesson plan provide evidence that the project was well thought out and well prepared. Writing flows well, observing proper spelling and grammar.

48 – 53 At most one required element/topic is missing and the specified format is followed. The assessment report, teaching report, and lesson plan generally show evidence of thorough preparation and thoughtful evaluation of student understanding. There is fairly good flow, although there may be some awkward areas and some spelling and grammar errors.

42 – 47 At most two required elements/topics are missing and the specified format is not completely followed. The assessment report, teaching report, and/or lesson plan suggest that preparation and post-interview evaluation lacked careful thought. There may be some awkward flow as well as some spelling and grammar errors.

36 – 41 At most three required elements/topics are missing and/or the specified format is not followed. The assessment report, teaching report, and/or lesson plan do not suggest that careful time was spent in preparation or analysis. The writing is awkward with spelling and grammar errors.

**ATTACH THIS SHEET TO YOUR ASSIGNMENT**

Total Points  _________/ 60 possible
## X. COURSE SCHEDULE

Last day to drop/withdraw with a grade of “W” – ***

<table>
<thead>
<tr>
<th>DATE</th>
<th>TOPICS</th>
<th>ASSIGNMENTS</th>
</tr>
</thead>
</table>
| Aug. 26    | Review syllabus and course assignments  
Intro to Geometry – Chapter 20 | Read Chapter 20                                  |
| Sept. 02   | Geometry cont.                                                         |                                                  |
| Sept. 09   | Geometry – Chapter 20  
Congruence and Similarity  
Visualization  
Geometry in 3-D | Due: Lesson Plan Search for Geometry |
| Sept. 16   | **Geometry Section Exam**  
**Geometry Lesson Presentations** | Due: Journal Article Summary - Geometry |
| Sept. 23   | Measurement – Chapter 19  
Intro to Measurement |                                                  |
| Sept. 30   | Measurement – Chapter 19  
Perimeter and Area | Read Chapter 19  
Due: Lesson Plan Search for Measurement |
| Oct. 07    | Measurement – Chapter 19  
Measurement in 3-D | Due: Assessment Report (A & T Project)  
Due: Journal Article Summary - Measurement |
| Oct. 14    | **Measurement – Section Exam**  
**Measurement Lesson Presentations** |                                                  |
| Oct. 21    | **FCTM math conference** |                                                  |
| Oct. 28    | Algebraic Thinking Chapter 14 |                                                  |
| Nov 4      | Algebraic Thinking – Chapter 14 | Read Chapter 14  
Due: Lesson Plan Search Algebraic Thinking |
| Nov. 11    | **Algebraic Thinking – Section Exam**  
**Algebraic Thinking – Lesson Presentations** | Due: Teaching Report (A & T Project)  
Due: Journal Article Summary – Alg. Thinking |
| Nov 18     | Data Analysis – Chapter 21 | Read Chapter 21                                  |
| Nov. 25    | Thanksgiving Holiday |                                                  |
| Dec. 2     | Probability – Chapter 22 | Read Chapter 22                                  |
| Dec. 09    | **Data Analysis & Probability – Exam**  
**Data Analysis & Probability Lesson Pres.** | Due: Journal Article Summary for D.A./Prob. |