MATH 6713
Strategies for Teaching Math
Fall 2009
Thursday Class

Instructor: Dr. Joy Black
Office Location: 318 Boyd Building
E-mail: jblack@westga.edu
Office Phone: 678-839-4128

Office Hours: TTH – 9:00 – 9:30 a.m.
TTh – 11:00 a.m. – 2:00 p.m.
Th – 3:30 – 5:30 p.m. or by appointment
(Office hours are subject to change)

Course Objectives
After completion of the course, the student will demonstrate the ability to:

• Design and/or evaluate lessons incorporating a variety of instructional models.
• Develop and/or evaluate unit plans using the backwards design.
• Differentiate instruction based on the needs of students
• Use major theories of motivating students from different backgrounds to learn mathematics in designing instruction.
• Develop and/or evaluate lessons involving the use of manipulative materials
and/or technology.

Text


<table>
<thead>
<tr>
<th>Course Evaluation</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflections</td>
<td>20</td>
</tr>
<tr>
<td>Principles and Standards</td>
<td></td>
</tr>
<tr>
<td>IMP Assignments</td>
<td></td>
</tr>
<tr>
<td>Extended Research Article Presentation</td>
<td>20</td>
</tr>
<tr>
<td>Geometer Sketchpad Exploration</td>
<td>10</td>
</tr>
<tr>
<td>Weekly Assignments and Responses</td>
<td>15</td>
</tr>
<tr>
<td>Classroom Observations &amp; Reflections (2)</td>
<td>15</td>
</tr>
<tr>
<td>Class Discussions and Participation</td>
<td>10</td>
</tr>
<tr>
<td>Final</td>
<td>10</td>
</tr>
</tbody>
</table>

Final course grades will be assigned as follows: A (90-100%); B (80-89.4%); C (70-79.4%); D (60-69.4%); F (0-59.4%).

**Assignments**

**Reflections:** Summarize the following sections of Principles and Standards for School Mathematics related to teaching secondary mathematics. Other reflections will include problems from the IMP units.

**Extended research article presentation:** You will be supplied a research article for which you will prepare a presentation for the class. The presentation format will be powerpoint and your task is to efficiently report the contents of the article to the class. The powerpoint and class discussion should take approximately 30 minutes.

**Geometer Sketchpad Assignment:** Exploration using geometer sketchpad along with a reflection. In addition, include how can geometer sketchpad promote students’ learning of mathematics in relationship to reasoning and proof?

**Weekly Assignments and Responses:** Students will be expected to read their assignments before the beginning of class each week.

**Classroom Observations & Reflections (2):** Students will be expected to observe two different secondary mathematics teachers and write reflections related to them. Included within the reflection should be the grade level, course, how the class was conducted, how was the material presented, what type of tasks were assigned to student, etc.

**Class Discussions and Participation:** Participation and discussion of tasks in class.

**Final:** Take home final
Attendance Policy
Students are expected to attend all classes. This term a student may withdraw with a grade of W through October 6th, regardless of grades, absences, etc. This deadline has been established by the University. After this deadline, if a student accumulated more than three absences throughout the semester, he/she will normally receive a grade of WF. (A grade of WF counts as an F.) Late arrivals and early exits count one-half of an absence. No make-ups will be given. Students should understand that NO EXTRA CREDIT WILL BE GIVEN FOR ANY REASON!

Conferences
Conferences can be beneficial and are encouraged. All conferences should occur during the instructor’s office hours, whenever possible. If these hours conflict with a student’s schedule, then appointments should be made. The conference time is not to be used for duplication of lectures that were missed; it is the student’s responsibility to obtain and review lecture notes before consulting with the instructor. The instructor is very concerned about the student’s achievement and well-being and encourages anyone having difficulties with the course to come by the office for extra help. Grades will be based on coursework, not on Hope Grant needs, financial aid, GPA, or any other factors outside the realm of coursework.

Individual Accommodations
Students requiring individual educational accommodations should discuss their needs with the instructor within the first week of class.

Conduct and Academic Integrity
It is expected that students be familiar with the Student Conduct Code, Disciplinary Procedures and Disciplinary Sanctions in the Student Handbook. Cheating and/or any conduct that disturbs the classroom, the instructor, or the students WILL NOT be tolerated!! Any evidence that may show otherwise will be reported; appropriate actions will be taken; and consequences will result. If you are caught cheating on the reflections, journal entries, performance task, Algebra in Teaching assignments, children’s literature assignments, tests, or final exam, you will receive an F for the course.

Pagers and Cell Phones
Students are not allowed to carry pagers and cell phones in the classroom unless they are set to an inaudible setting.
# MATH 6713 Course Outline
## Fall 2009

<table>
<thead>
<tr>
<th>Date</th>
<th>Class</th>
<th>Preparation for Class</th>
<th>Assignments Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>August 13th</td>
<td>Introduction, Syllabus, Computer Lab 1106</td>
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<td>August 20th</td>
<td>Categorizing Tasks Assign Research Articles</td>
<td>Read Part I – Chapters 1-3 pages 1-32 in Implementing Standards-Based Instruction</td>
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<tr>
<td>August 27th</td>
<td>Review of Categorizing Tasks Do Task 1</td>
<td>Summarize and reflect on Chapters 1 and 2 of <em>PSSM</em></td>
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<td>September 3rd</td>
<td>Case 1 Discussion Do Task 2</td>
<td>Read Chapters 4 &amp; 5 pages 34 – 64 in Implementing Standards-Based Instruction</td>
<td>Summarize and reflect on Chapter 7 of <em>PSSM</em></td>
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<tr>
<td>September 10th</td>
<td>Case 2 Discussion Do Task 3</td>
<td>Read Chapter 6 pages 65-76 in Implementing Standards-Based Instruction</td>
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<tr>
<td>September 17th</td>
<td>Case 3 Discussion Do Task 4</td>
<td>Read Chapter 7 pages 81-91 in Implementing Standards-Based Instruction</td>
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<tr>
<td>September 24th</td>
<td>Case 4 Discussion Do Task 5</td>
<td>Read Chapter 8 pages 96-105 in Implementing Standards-Based Instruction</td>
<td>Classroom Observation Reflection 1</td>
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<tr>
<td>October 1st</td>
<td>Case 5 Discussion Do Task 6</td>
<td>Read Chapter 9 pages 110-117 in Implementing Standards-Based Instruction</td>
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<td>October 8th</td>
<td>Case 6 Discussion</td>
<td>Read Chapter 10 pages 121-130 in Implementing Standards-Based</td>
<td>Classroom Observation Reflection 2</td>
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<td>Date</td>
<td>Instruction</td>
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<tr>
<td>October 15th</td>
<td>No Class – Fall Break</td>
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| October 22nd | Chapter 11 Discussion
IMP Unit – Shadows
Chapter 11 in Implementing Standards-Based Instruction |
| October 29th | Chapter 12 Discussion
IMP Unit – Shadows
Research Article Presentations
Chapter 12 in Implementing Standards-Based Instruction
IMP Unit – Shadows Assignment 1 |
| November 5th | IMP Unit – Overland Trail
Research Article Presentations
IMP Unit – Shadows Assignment 2 |
| November 12th| IMP Unit – Overland Trail
Research Article Presentations
IMP Unit – Overland Trail Assignment 1 |
| November 19th| No Formal Class – Work on Geometer Sketchpad Assignment
IMP Unit – Overland Trail Assignment 2 |
| November 26th| No Class – Thanksgiving Holiday                                               |
| December 3rd | Last Day of Class – Take Home Final Given
Finish Research Article Presentations
Geometer Sketchpad Assignment Due |
| December 8th | Take Home Final Due by 7:30 p.m.                                              |