I. **Course Description**
This is a course for elementary, middle, and secondary school teachers who wish to investigate the connection between children’s literature and mathematics for the purpose of improving mathematics instruction. Teachers will work through activities based upon children’s books and develop and share similar activities based upon children’s books of their choosing.

II. **Rationale**
Integrating mathematics and literature allows students to observe the connection between mathematics and our everyday world. This connection gives meaning to mathematics and makes it come alive. This integration of mathematics contexts that gives its symbols and processes practical meaning is an overarching goal of the NCTM standards.

III. **State Adopted Proficiencies for Teachers and/or Administrators/Counselors**
Not applicable

IV. **TExES Competencies**
Not applicable

V. **Course Objectives/Learning Outcomes**
*This course is designed to enable students to:*
1. Discuss the purpose for using literature in the mathematics classroom.
2. Review the NCTM recommendations that would justify the use of literature in the mathematics classroom.
3. Find activities to incorporate the use of literature in the mathematics classroom.
4. Develop mathematics activities for book selections of their choosing representing children’s literature and literature for adolescents and provide presentations of each book and the activities developed.

VI. **Course Topics**
The major topics to be considered are:
1. Purposes for using literature in the mathematics classroom
2. Types of children’s literature
3. Effective teaching practices
4. Classroom strategies
5. Appropriate reading choices
6. Creative integration of mathematics
VII. Instructional Methods and Activities

Methods and activities for instruction include:

- Whole class and group discussions
- Direct instruction
- Modeling
- Student and teacher presentations
- Research

VIII. Evaluation and Grade Assignment

The methods of evaluation and the criteria for grade assignment are:

A. Methods and Percentage of Final Course Grade Each Assessment Constitutes

Presentations (60%)- You will read several children’s books or literary classics in this class, determine the mathematical concepts embedded within, and present them to a group of your peers. Please see the handout for specific instructions. Due midnight before class presentation.

Article reflections (30%)- In lieu of assigned readings from a textbook, we will be reading several articles from national journals. After reading each article and reflecting upon its important issues it addresses, you will write a 2 or 3 sentence summary and 3-5 bullets reflecting what you want to remember from this article that you think are important, or it may be things you want to do back in the classroom. You will also have an “AHA!!” which is something that just strikes you! At the top of the page will be the bibliographical information written in APA format. This must be typed in a 12 pt font Times New Roman. Points will be deducted for spelling, grammar, etc. Do not write more than one page per article. Send to instructor via Blackboard using the correct format. Due Sunday, midnight before next class.

Participation (10%)- See Class Attendance Policy.

B. Grading Scale

92-100% = A  
83-91% = B  
74-82% = C  
65-73% = D  
below 64% = F
IX. Course Schedule and Policies

A. A tentative course schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>8/29, 9/12</td>
<td>Introduction to Mathematics through Children’s Literature Teacher presentations</td>
<td>Article 1</td>
</tr>
<tr>
<td>9/19, 9/26</td>
<td>Presentation 1</td>
<td>Article 2, 3</td>
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<tr>
<td>10/3, 10/10</td>
<td>Presentation 2</td>
<td>Article 4, 5</td>
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<td>10/17, 10/24</td>
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<td>Article 6</td>
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<tr>
<td>11/7, 11/14</td>
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<tr>
<td>11/28, 12/5</td>
<td>Presentation 5</td>
<td></td>
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</tbody>
</table>

B. Class Policies

**Attendance/tardiness** Regular attendance is expected at all classes. There is a high positive correlation between consistent, punctual attendance and higher course grades. It is virtually impossible to receive an A in the course if there are absences and/or lateness.

**Late work and Make-up Exams** Points may be deducted for late work at the discretion of the professor.

**Extra Credit** Assignments may be given at the discretion of the professor.

**Cell Phone/Electronic Device Usage** Cell phones and other electric devices should not be used during class. If a potential emergency exists where a student is expecting an important call concerning a child or family member, the phone should be put on vibrate.

**Classroom/professional behavior**
- Participate cooperatively in class discussions & lessons.
- Word-process all assignments (1 inch margins, 12 point font, Times New Roman). Written work should be clear, concise, and written in an academic manner. The Writing Center is available for help with written assignments.
- Additional assignments may be required if they will benefit the course objectives.
- Assignments and due dates may be modified at the discretion of the instructor if they will benefit/enhance the outcomes of the course.
- Be responsible for any information and materials missed when absent.
- No incomplete grades will be given.
- All students are expected to participate fully in class discussions, presentations, and group work. Failure to participate will affect your grade.
X. **Textbook(s)**

*The textbook(s) adopted for this course is:*

There is no assigned textbook. Selected readings from the following professional journals will be incorporated into the course content:

*Mathematics Teaching in the Middle School*
*Teaching Children Mathematics*

XI. **Bibliography**

*The knowledge bases that support course content and procedures include:*


Whitin, D.J. (2002). The potentials and pitfalls of integrating literature into the mathematics program. *Teaching Children Mathematics, 8* (9), 503-505.

XII. Grade Appeals*

As stated in University Rule 13.02.99.C2, Student Grade Appeals, a student who believes that he or she has not been held to appropriate academic standards as outlined in the class syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://www.tamucc.edu/provost/university_rules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

XIII. Disabilities Accommodations*

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please call or visit Disability Services at (361) 825-5816 in Driftwood 101.

If you are a returning veteran and are experiencing cognitive and/or physical access issues in the classroom or on campus, please contact the Disability Services office for assistance at (361) 825-5816.

*Required by SACS

Slightly revised again by Jack Cassidy, co-chair Curriculum Coordinating Committee, 11/10/10.