Course Syllabus  
Southeast Missouri State University

**Department:** College of Education, Department of Elementary, Early, and Special Education

**Course No.** EX 312

**Title of Course:** Diagnosis and Remediation of Math Difficulties

**Date:** October 30, 2014

**Please check:** Revision

**Instructor:**

**Office Hours:**

**Office Location:**

**Office Phone:**

**Email:**

**Class Meeting Times:** TBA

**Delivery Method:** TBA

I. **Course Description (Credit Hours of Course 3):** Use of diagnostic/prescriptive approach involving research-supported teaching/learning strategies when providing instruction to students with Exceptional Learning Needs. (3)

II. **Prerequisites:**

   - Admission to the Teacher Preparation Program
   - MA 418 Geometry of Educators
   - EX 311 Introduction to Children with Exceptionalities OR EX 390 Psychology and Education of the Exceptional Child

III. **Purposes or Objectives of the Course (optional):**

   The teacher candidate will demonstrate the knowledge base and skills applicable for grades K-12:

   1. Identify why some children have difficulty in learning mathematics.
   2. Describe, select, and utilize appropriate standardized and curriculum-based assessments for diagnosing mathematical difficulties.
   3. Develop classroom-learning environments to meet the needs of students with Exceptional Learning Needs (ELN).
   4. Describe the philosophical basis for effective teaching and the components of an effective lesson cycle.
5. Describe, select and develop a plan of evidence-based teaching strategies to meet the needs of student with ELN including: getting students’ attention, clearly defining the vehicle of instruction, providing sufficient opportunities to respond, reinforcing correct responses, correcting errors, and evaluating mastery of mathematical concept (i.e., teaching multiplication to two two-digit whole numbers.)

6. Describe, select and develop a plan utilizing research-supported learning activities to meet the needs of students with ELN.

7. Describe and select the least intensive intervention consistent with the needs of students with ELN including elements of multi-level interventions (primary, secondary, and tertiary).

8. Describe and integrate effective supports for students with ELN and students who are English Language Learners as they navigate the mathematics curriculum.

IV. Student Learning Outcomes (Minimum of 3):

<table>
<thead>
<tr>
<th></th>
<th>Description</th>
<th>Measurement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The teacher candidate will describe, select, and utilize appropriate standardized and curriculum-based assessments for diagnosing mathematical difficulties.</td>
<td>Data Analysis Process</td>
</tr>
<tr>
<td>2</td>
<td>The teacher candidate will describe, select and develop a plan of evidence-based teaching strategies to meet the needs of exceptional learners including: getting students’ attention, clearly defining the vehicle of instruction, providing sufficient opportunities to respond, reinforcing correct responses, correcting errors, and evaluating mastery of mathematical concept (i.e., teaching multiplication to two two-digit whole numbers.)</td>
<td>Mathematics Improvement Plan</td>
</tr>
<tr>
<td>3</td>
<td>The teacher candidate will describe, select and develop a plan utilizing research-supported learning activities for students with ELN.</td>
<td>Case Study with Adapted Lesson Plan</td>
</tr>
</tbody>
</table>

V. Expectation of the Students

Students will be expected to complete the following course requirements:

A. complete all assigned readings and assignments
B. participate in class discussions and activities
C. demonstrate achievement by their performance on examinations at the conclusion of each major segment of the course and on quizzes over assigned reading material that may not be covered in class lecture and discussion
D. complete a case study with Adapted Lesson Plan
E. complete all assigned assessments
F. complete all Data Analysis
**G.** complete all Mathematics Improvement Plans

**VI. Course Content or schedule**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Readings</th>
<th>Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dissimilar Learner and Mathematics Instruction</td>
<td></td>
<td>Class Assignments</td>
</tr>
<tr>
<td>Standardized and Curriculum-Based Assessments used for diagnosing Mathematics Difficulties</td>
<td></td>
<td>P-12 Student Assessment Instruments (Class Assignment), Data Analysis Process, Mathematics Improvement Plans</td>
</tr>
<tr>
<td>Classroom-learning environments that enhance the learning of students with Exceptional Learning Needs and English Language Learners is the area of Mathematics</td>
<td></td>
<td>Module (Class Assignment)</td>
</tr>
<tr>
<td>The philosophy of the for effective and teaching and the components of the lesson cycle</td>
<td></td>
<td>Class Assignment</td>
</tr>
<tr>
<td>Evidence-based instructional strategies to meet the needs of learning of students with Exceptional Learning Needs and English Language Learners is the area of Mathematics</td>
<td></td>
<td>Data Analysis Process, Mathematics Improvement Plans</td>
</tr>
<tr>
<td>Research- based learning activities for students with Exceptional Learning Needs and English Language Learners is the area of Mathematics</td>
<td></td>
<td>Data Analysis Process, Mathematics Improvement Plans</td>
</tr>
<tr>
<td>Intensive intervention consistent with the needs of individuals with Exceptional Learning Needs including elements of multi-level interventions (primary, secondary, and tertiary).</td>
<td></td>
<td>RTI Module (Class Assignment)</td>
</tr>
<tr>
<td>Describe and integrate effective supports for students with Exceptional Learning Needs and students who are English Language Learners as they navigate the mathematics curriculum</td>
<td></td>
<td>Case Study Adapted Lesson Plan</td>
</tr>
</tbody>
</table>

**VII. Textbook and/or Required Readings:**
VIII. Basis for Student Evaluation:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forum /Class Assignments</td>
<td>10%</td>
<td>Periodically</td>
</tr>
<tr>
<td>Drop Box/Class Assignments</td>
<td>15%</td>
<td>Periodically</td>
</tr>
<tr>
<td>Exams</td>
<td>15%</td>
<td>Periodically</td>
</tr>
<tr>
<td>Case Study with Adapted Lesson Plan</td>
<td>20%</td>
<td>Periodically</td>
</tr>
<tr>
<td>Data Analysis Process</td>
<td>15%</td>
<td>By mid semester</td>
</tr>
<tr>
<td>Math Improvement Plan</td>
<td>15%</td>
<td>Be the end of the semester</td>
</tr>
<tr>
<td>Task 3</td>
<td>10%</td>
<td>Be the end of the semester</td>
</tr>
</tbody>
</table>

IX. Grading Scale

- 100-90% = A
- 89-80% = B
- 79-70% = C
- 69-60% = D
- 59% and below = F

Teacher candidates must receive a C or higher in this course.

X. Accessibility

Southeast Missouri State University and Disability Support Services remain committed to making every reasonable educational accommodation for students with disabilities. Many services and accommodations which aid a student’s educational experience are available for students with various types of disabilities. It is the student’s responsibility to contact Disability Support Services to become registered as a student with a disability in order to have accommodations implemented.

XI. Civility

Every student at Southeast is obligated at all times to assume responsibility for his/her actions, to respect constituted authority, to be truthful, and to respect the rights of others, as to respect private and public property. In their academic activities, students are expected to maintain high standards of honesty and integrity and abide by the University’s Policy on Academic Honesty. Alleged violations of the Code of Student Conduct are adjudicated in accordance with the established procedures of the judicial system.
XII. Academic honesty

Academic honesty is one of the most important qualities influencing the character and vitality of an educational institution. Academic misconduct or dishonesty is inconsistent with membership in an academic community and cannot be accepted. Violations of academic honesty represent a serious breach of discipline and may be considered grounds for disciplinary action, including dismissal from the University. Academic dishonesty is defined to include those acts which would deceive, cheat, or defraud so as to promote or enhance one’s scholastic record. Knowingly or actively assisting any person in the commission of an above-mentioned act is also academic dishonesty. Students are responsible for upholding the principles of academic honesty in accordance with the “University Statement of Student Rights” found in the STUDENT HANDBOOK. The University requires that all assignments submitted to faculty members by students be the work of the individual student submitting the work. An exception would be group projects assigned by the instructor. In this situation, the work must be that of the group. Academic dishonesty includes:

Plagiarism

In speaking or writing, plagiarism is the act of passing someone else’s work off as one’s own. In addition, plagiarism is defined as using the essential style and manner of expression of a source as if it were one’s own. If there is any doubt, the student should consult his/her instructor or any manual of term paper or report writing. Violations of academic honesty include:

1. Presenting the exact words of a source without quotation marks;
2. Using another student’s computer source code or algorithm or copying a laboratory report; or
3. Presenting information, judgments, ideas, or facts summarized from a source without giving credit.

Cheating

Cheating includes using or relying on the work of someone else in an inappropriate manner. It includes, but is not limited to, those activities where a student:

1. Obtains or attempts to obtain unauthorized knowledge of an examination’s contents prior to the time of that examination.
2. Copies another student’s work or intentionally allows others to copy assignments, examinations, source codes or designs;
3. Works in a group when she/he has been told to work individually;
4. Uses unauthorized reference material during an examination; or
5. Have someone else take an examination or takes the examination for another.
XIII. Statement of whom to contact with concerns

Questions, comments or requests regarding this course or program should be taken to your instructor. Unanswered questions or unresolved issues involving this class may be taken to Dr. Julie Ray, Chair of the Dept. of Elementary, Early, and Special Education.

XIV. Potential Readings and Resources:


IRIS Center Resources: [http://iris.peabody.vanderbilt.edu](http://iris.peabody.vanderbilt.edu)


