## Course Description

Overviews development of acquisition of mathematical concepts and examines the assessment/ correction process.
Teaches strategies appropriate to children with learning difficulties. Requires in case study form individual assessment and analysis of a particular child's mathematical problems, including teaching to this analysis. Examines current research on teaching mathematics to children with special needs. Requires application of knowledge of teaching strategies and the assessment/correction process during the field experience. Field experience required.
(F,S)
Prerequisites: Admission to Teacher Education, completion of courses listed in Blocks I and II with a grade of $C$ or above. Corequisites: READ 4251, ESOL 4251, EDUC 4262, and EDUC 4284

## Program Outcomes

PO 1: Effective and Professional Educator
The student will demonstrate the knowledge and characteristics of an effective and professional educator, including a commitment to collaboration and professional development.

## PO 2: Subject Matter Competency

The student will demonstrate competency of subject matter essential to effective teaching.

## PO 3: Caring Environment

The student will create a caring classroom environment that values diversity and is conducive to the philosophy that all students can learn.

## PO 4: Communication and Reflection

The student will demonstrate skills essential to effective teaching, including proficiency in oral and written communication, critical thinking, assessment, reflection, incorporation of technology into the curriculum, and the use of data for continuous improvement.

## Outcomes, with Any Associations and Related Measures, Targets, Findings, and Action Plans

Outc. 1: Errors and Remediations
Diagnose student error patterns and design appropriate remediation/ correctives

## Relevant Associations:

## Standard Associations

InTASC Model Core Teaching Standards (April 2011)
6 Assessment
8 Instructional Strategies
SACSCOC 2012* Principles of Accreditation
3.3.1.1 educational programs, to include student learning outcomes
4.1 The institution evaluates success with respect to student achievement consistent with its mission. Criteria may include: enrollment data; retention, graduation, course completion, and job placement rates; state licensing examinations; student portfolios; or other means of demonstrating achievement of goals. (Student achievement)

## Institutional Mission Associations

2 Dalton State offers targeted bachelor's degrees, a full range of associate's degrees and career certificate programs, and a wide variety of public service activities.

## Related Measures

M 1: Critical Assignment: Case Study Results
Math Diagnostic Notebook and Tutored Student Case Study Project
Source of Evidence: Academic direct measure of learning - other
Target:
Eighty percent (80\%) of students will achieve a score of $80 \%$ or higher on the Math Diagnostic Notebook /Tutored Student Case Study Project, demonstrating their ability to diagnose student error patterns and design appropriate remediation/correctives.

Finding (2015-2016) - Target: Met
Ninety-two percent of the teacher candidate students achieved a score of $80 \%$ or better on the Math
Diagnostic Notebook/Tutored Student Case Study Project.. Students continue to hone their assessment skills when working with tutored student.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

## Continuous Improvement

Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for ...

Eighty percent (80\%) of students will achieve a score of $85 \%$ or higher on the Math Diagnostic Notebook and Tutored Student Case...

Earlier selection process
Established in Cycle: 2015-2016
Students will begin the selection process of each tutored student early in the semester in order to become more accurate in asse...

Outc. 2: Effective Resource Use
Identify available resource materials for enhancing classroom instruction and use them effectively while taking into consideration individual differences in learning

## Relevant Associations:

## Standard Associations

## InTASC Model Core Teaching Standards (April 2011)

2 Learning Differences
7 Planning for Instruction
SACSCOC 2012* Principles of Accreditation
3.3.1.1 educational programs, to include student learning outcomes
4.1 The institution evaluates success with respect to student achievement consistent with its mission. Criteria may include: enrollment data; retention, graduation, course completion, and job placement rates; state licensing examinations; student portfolios; or other means of demonstrating achievement of goals. (Student achievement)

## Institutional Mission Associations

2 Dalton State offers targeted bachelor's degrees, a full range of associate's degrees and career certificate programs, and a wide variety of public service activities.

## Related Measures

M 2: Math Diagnostic Resources and Projects
Utilize available resource materials in order to differentiate instruction by creating a Math Diagnostic Notebook that includes diagnostic materials, class notes and handouts, research article(s), Case Study Project, and Resources related to diagnosing/correcting mathematical errors.
Source of Evidence: Academic direct measure of learning - other
Target:
Eighty percent of the teacher candidates will achieve $80 \%$ on the Resource Section out of $100 \%$ on Math Diagnostic Case Study Project.

## Finding (2015-2016) - Target: Met

Nine-two percent of the teacher candidates achieved $80 \%$ or higher on the Resource Section of the Math Diagnostic Case Study Project. They demonstrated the ability to utilize current research and math manipulatives for improving the math procedural and conceptual understanding of tutored students.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

## Continuous Improvement

Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update...

Higher Notebook and Case Study scores
Established in Cycle: 2012-2013
Eighty percent of the teacher candidates will achieve $85 \%$ out of $100 \%$ on the Math Diagnostic Tutored Student Project Case Study ...

Continue to hone their research and manipulative selection/use skills
Established in Cycle: 2015-2016
Teacher candidates will continue to hone their research and manipulative selection/use skills with tutored students in order to ...

Outc. 3: Learner Assessment
Assess the learner based on developmental stage, cognitive style, and present level of performance

## Relevant Associations:

## Standard Associations

InTASC Model Core Teaching Standards (April 2011)
2 Learning Differences
6 Assessment
8 Instructional Strategies
SACSCOC 2012* Principles of Accreditation
3.3.1.1 educational programs, to include student learning outcomes
4.1 The institution evaluates success with respect to student achievement consistent with its mission. Criteria may include: enrollment data; retention, graduation, course completion, and job placement rates; state licensing examinations; student portfolios; or other means of demonstrating achievement of goals. (Student achievement)

## Institutional Mission Associations

2 Dalton State offers targeted bachelor's degrees, a full range of associate's degrees and career certificate programs, and a wide variety of public service activities.

## Related Measures

M 1: Critical Assignment: Case Study Results
Math Diagnostic Notebook and Tutored Student Case Study Project

## Target:

Eighty percent ( $80 \%$ ) of students will achieve a score of $80 \%$ or higher on the Math Diagnostic Notebook/Tutored Student Case Study Project, demonstrating their ability to assess the learner based on developmental stage, cognitive style, and present level of performance.

## Finding (2015-2016) - Target: Met

Ninety-two percent of teacher candidate students were able to achieve a score of $80 \%$ or greater in demonstrating their ability to assess the learner based on developmental stage, cognitive style, and present level of performance.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

## Continuous Improvement

Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for n ...

## Higher Notebook and Case Study scores

Established in Cycle: 2012-2013
Eighty percent (80\%) of students will achieve a score of $85 \%$ or higher on the Math Diagnostic Notebook and Tutored Student Case ...

## Address time constraint issues

Established in Cycle: 2015-2016
Students will address time management with beginning the identification, assessment, prescriptive, process earlier in the semest...

Outc. 4: Assessment and Correction
Identify and appropriately use formal/informal assessment tools, and prescriptive teaching techniques

## Relevant Associations:

## Standard Associations

## InTASC Model Core Teaching Standards (April 2011)

6 Assessment
7 Planning for Instruction
8 Instructional Strategies
SACSCOC 2012* Principles of Accreditation
3.3.1.1 educational programs, to include student learning outcomes
4.1 The institution evaluates success with respect to student achievement consistent with its mission. Criteria may include: enrollment data; retention, graduation, course completion, and job placement rates; state licensing examinations; student portfolios; or other means of demonstrating achievement of goals. (Student achievement)

## Institutional Mission Associations

2 Dalton State offers targeted bachelor's degrees, a full range of associate's degrees and career certificate programs, and a wide variety of public service activities.

## Related Measures

M 1: Critical Assignment: Case Study Results
Math Diagnostic Notebook and Tutored Student Case Study Project
Source of Evidence: Academic direct measure of learning - other

## Target:

Eighty percent ( $80 \%$ ) of students will achieve a score of $80 \%$ or higher on the CA Tutored Student Math Diagnostic Project Case Study., demonstrating their ability to identify and appropriately use formal/informal assessment tools, and prescriptive teaching techniques.

## Finding (2015-2016) - Target: Met

Nine-two percent of student teacher candidates achieved $80 \%$ or higher on the Critical Assignment Tutored Student Math Diagnostic Project Case Study. Students were able to demonstrate the ability to identify and use appropriate formal/informal assessments and prescribe correctives for the tutored student.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

## Continuous Improvement

Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update...

Higher Notebook and Case Study scores
Established in Cycle: 2012-2013
Eighty percent ( $80 \%$ ) of students will achieve a score of $85 \%$ or higher, demonstrating their ability to identify and appropriatel...

Outc. 5: Accommodations/Modifications
Be able to effectively modify the mathematics program to meet the needs of students with special needs/English Language Learners

## Relevant Associations:

Standard Associations
InTASC Model Core Teaching Standards (April 2011)
2 Learning Differences

6 Assessment
7 Planning for Instruction
8 Instructional Strategies
SACSCOC 2012* Principles of Accreditation
3.3.1.1 educational programs, to include student learning outcomes
4.1 The institution evaluates success with respect to student achievement consistent with its mission. Criteria may include: enrollment data; retention, graduation, course completion, and job placement rates; state licensing examinations; student portfolios; or other means of demonstrating achievement of goals. (Student achievement)
Institutional Mission Associations
2 Dalton State offers targeted bachelor's degrees, a full range of associate's degrees and career certificate programs, and a wide variety of public service activities.

## Related Measures

M 2: Math Diagnostic Resources and Projects
Utilize available resource materials in order to differentiate instruction by creating a Math Diagnostic Notebook that includes diagnostic materials, class notes and handouts, research article(s), Case Study Project, and Resources related to diagnosing/correcting mathematical errors.
Source of Evidence: Academic direct measure of learning - other
Target:
Eighty percent of the teacher candidates will achieve 80\% on the Accommodations and Modifications portion out of $100 \%$ on the Math Tutored Student Project.

## Finding (2015-2016) - Target: Met

Ninety-two percent of the teacher candidates achieved $80 \%$ or higher on the Accommodations and Modifications portion of the Tutored Student Project. Teacher candidates were able to successfully assess a student in order to modify/accommodate individual instructional needs for math.

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

## Continuous Improvement

Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update...

Higher Notebook and Case Study scores
Established in Cycle: 2012-2013
Eighty percent of the teacher candidates will achieve $85 \%$ out of $100 \%$ on the Tutored Student Project Case Study.

Reflection on Case Study Description
Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for n ...

Hone skills that help to identify math learning needs of diverse students
Established in Cycle: 2015-2016
Teacher candidates will continue to hone skills that help to identify math learning needs of diverse students and to differentia..

Outc. 6: Field Experience Application
Apply course content knowledge and effective teaching strategies during field experience

## Relevant Associations:

## Standard Associations

InTASC Model Core Teaching Standards (April 2011)
1 Learner Development
2 Learning Differences
3 Learning Environments
4 Content Knowledge
5 Application of Content
6 Assessment
7 Planning for Instruction
8 Instructional Strategies
9 Professional Learning and Ethical Practice
10 Leadership and Collaboration
SACSCOC 2012* Principles of Accreditation
3.3.1.1 educational programs, to include student learning outcomes
4.1 The institution evaluates success with respect to student achievement consistent with its mission. Criteria may include: enrollment data; retention, graduation, course completion, and job placement rates; state licensing examinations; student portfolios; or other means of demonstrating achievement of goals. (Student achievement)

## Institutional Mission Associations

2 Dalton State offers targeted bachelor's degrees, a full range of associate's degrees and career certificate programs, and a wide variety of public service activities.

## Related Measures

M 3: Math Lesson Plan
A standards-based, TCOI- observed lesson plan during field placement ( $\mathrm{K}-5$ ) will be rated based on TCOI scores and submitted lesson plan and reflection.
Source of Evidence: Academic direct measure of learning - other

Target:
Eighty percent of the teacher candidates will achieve $80 \%$ out of $100 \%$ on the observed School of Education Math Lesson Plan (scored TCOI included)

```
Finding (2015-2016) - Target: Met
Nine-two percent of teacher candidates achieved \(80 \%\) or higher on the TCOI (Teacher Candidate Observation
Instrument) on their observed lesson plan in the field.
```

Related Action Plans (by Established cycle, then alpha):
For full information, see the Details of Action Plans section of this report.

## Continuous Improvement

Established in Cycle: 2012-2013
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update...

## Higher TCOI observation scores

Established in Cycle: 2012-2013
Eighty percent of the teacher candidates will achieve $85 \%$ out of $100 \%$ on the observed School of Education Math Lesson Plan (scor...

Improve observed lesson plan scores
Established in Cycle: 2015-2016
Teacher candidates will continue to improve observed lesson plan scores in the field on the TCOI.

## Details of Action Plans for This Cycle (by Established cycle, then alpha)

## Continuous Improvement

I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for needed change.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome: Effective Resource Use

## Continuous Improvement

I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for needed change.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome:
Accommodations/Modifications

## Continuous Improvement

I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for needed change.

Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Assessment and Correction

Continuous Improvement
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for needed change.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Lesson Plan | Student Learning Outcome: Field Experience Application
Continuous Improvement
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for needed change.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Learner Assessment
Continuous Improvement
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for change.
Established in Cycle: 2012-2013

Higher Notebook and Case Study scores
Eighty percent (80\%) of students will achieve a score of $85 \%$ or higher on the Math Diagnostic Notebook and Tutored Student Case Study Project, demonstrating their ability to assess the learner based on developmental stage, cognitive style, and present level of performance.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Learner Assessment
Higher Notebook and Case Study scores
Eighty percent ( $80 \%$ ) of students will achieve a score of $85 \%$ or higher on the Math Diagnostic Notebook and Tutored Student Case Study Project, demonstrating their ability to diagnose student error patterns and design appropriate remediation/correctives.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Errors and Remediations
Higher Notebook and Case Study scores
Eighty percent ( $80 \%$ ) of students will achieve a score of $85 \%$ or higher, demonstrating their ability to identify and appropriately use formal/informal assessment tools, and prescriptive teaching techniques.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Assessment and Correction
Higher Notebook and Case Study scores
Eighty percent of the teacher candidates will achieve $85 \%$ out of $100 \%$ on the Math Diagnostic Tutored Student Project Case Study Project.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome: Effective Resource Use
Higher Notebook and Case Study scores
Eighty percent of the teacher candidates will achieve $85 \%$ out of $100 \%$ on the Tutored Student Project Case Study.
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome: Accommodations/Modifications
Higher TCOI observation scores
Eighty percent of the teacher candidates will achieve $85 \%$ out of $100 \%$ on the observed School of Education Math Lesson Plan (scored TCOI included)
Established in Cycle: 2012-2013
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Lesson Plan | Student Learning Outcome: Field Experience Application
Reflection on Case Study Description
I will try to replicate the specific successful elements to target and adjust/modify for continuous improvement and update for necessary change.
Established in Cycle: 2012-2013
Implementation Status: Finished
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome:
Accommodations/Modifications
Continue to hone their research and manipulative selection/use skills
Teacher candidates will continue to hone their research and manipulative selection/use skills with tutored students in order to differentiate instruction.
Established in Cycle: 2015-2016

Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome: Effective Resource Use

Hone skills that help to identify math learning needs of diverse students
Teacher candidates will continue to hone skills that help to identify math learning needs of diverse students and to differentiate learning materials based on those needs in order to meet standards.
Established in Cycle: 2015-2016
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Diagnostic Resources and Projects | Student Learning Outcome:
Accommodations/Modifications
Improve observed lesson plan scores
Teacher candidates will continue to improve observed lesson plan scores in the field on the TCOI.
Established in Cycle: 2015-2016
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Math Lesson Plan | Student Learning Outcome: Field Experience Application
Address time constraint issues
Students will address time management with beginning the identification, assessment, prescriptive, process earlier in the semester for the case study tutored student.
Established in Cycle: 2015-2016
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Learner Assessment
Earlier selection process
Students will begin the selection process of each tutored student early in the semester in order to become more accurate in assessing and prescribing for the error patterns. This was a consistent weakness among the teacher candidates with this project.
Established in Cycle: 2015-2016
Implementation Status: Planned
Priority: High
Relationships (Measure | Student Learning Outcome):
Measure: Critical Assignment: Case Study Results | Student Learning Outcome: Errors and Remediations

## Analysis Questions and Analysis Answers

What strengths and weaknesses did your assessment results show? In addition, please describe 2 to 3 significant improvements or continuous improvement measures you'll put in place as a result of your assessment findings.

The teacher candidates have improved their assessment and correction skills during the tutored student process. However, they must continue to hone these skills by choosing their tutored student earlier in the semester and differentiating and modifying the prescribed correctives earlier in order to individualize the instruction more effectively. Additionally, teacher candidates must continue to refine the lesson plan teaching process during their observed TCOI lesson in the field.

