

SECTION I—CONTEXT

1. Description of any state or institutional policies that may influence the application of NCTM standards.

The Mathematics Education Program for Grades 7-12 is designed to meet the requirements for Louisiana State certification for grade levels 7-12.

The program is housed in the College of Education and Human Development, which is concerned with programs preparing individuals for a wide variety of educational positions in schools, business, and governmental agencies. Primary consideration is given to experiences that will prepare teachers, administrators, and school service personnel for the elementary and secondary schools

There are three interrelated sets of standards that govern the application of NCTM standards: a) Louisiana Components of Effective Teaching (LCET), b) INTASC/NCATE, and c) the College of Education and Human Development's conceptual framework-*The Effective Educator*.

LCET, Louisiana's Teaching Standards, were developed from the professional knowledge base on teaching and "craft knowledge" acquired by experienced educators. The LCET form the criteria used to assess the teaching practices of new and experienced teachers. The State Board of Elementary and Secondary Education (SBESE) approved the LCET in September of 1992. Revisions to the Components are approved by the SBESE as needed. In the Louisiana Components of Effective Teaching, a domain is defined as a major area of teaching responsibilities. A component is a critical function within the domain. An attribute is a behavior that relates to and helps to define a component. The domains of the LCET consist of planning, management, instruction, professional development, and school improvement. The state mandates that programs meet NCATE standards. The components of the conceptual framework provide for the development of effective education professionals who set the standards for excellence through best practice and include professional standards, strategies and methods, knowledge of the learner, and content knowledge with the integration of diversity and technology throughout the framework.

2. Description of the field and clinical experiences required for the program including the number of hours for early field experiences and the number of hours/weeks for student teaching or internships.

Students pursuing a degree in the Mathematics Education Program at Southeastern Louisiana University are required to be involved in a comprehensive program of structured field experiences beginning with observation and class participation in the sophomore year and progressing to intense involvement in the senior year for a total of 180 hours before they begin student teaching. These experiences are shaped by the conceptual framework of the College of Education and Human Development and are designed to prepare effective educators by allowing students to strengthen knowledge in core content areas, develop awareness of the needs of secondary level students in the classroom, and build understanding of best pedagogical practices. Direct teaching experiences in the program allow teacher candidates the opportunity to demonstrate

teaching skills and dispositions appropriate for a teacher of adolescent learners. Candidates in the program participate in specialized field experiences based on two courses specific to mathematics education (MATH 365 and MATH 375). Candidates are assigned to secondary level classrooms in schools who sign a contract to participate as selected by the instructor or by the Field Experience Coordinator depending on the course. Teachers who work with candidates during field experiences must be certified and have at least three years of teaching experience.

Teacher candidates' field experiences begin during their first two education courses which are taken concurrently and include 5 hours of observation and 5 hours direct teaching in diverse settings. These early experiences are generally in a 4-6 grade setting and include observing the Louisiana Components of Effective Teaching domains as well as the Praxis domains of teaching in the classroom. As students continue in the program, field experiences continue for each education course with a focus on specific areas including 10 hours of observation focusing on classroom management and motivation, 15 hours of observation and one-on-one experiences related to the characteristics and needs of children and adolescents, 10 hours of direct teaching focused on planning and assessment. Students also do observation and small group teaching in educational technology and as part of their specialized education courses including communication, mathematics, as well as additional hours related to the needs of special education students. Field experiences become more intense in their junior year when they are enrolled in their methods block (MATH 365 and 375). Students spend 4 weeks in a secondary school where they complete 20 hours of direct teaching concentrating on mathematics. Candidates also complete field experiences consisting of observation and direct teaching thus allowing for the building of specialized knowledge in content and pedagogy.

The culminating experience consists of 270 hours of student teaching which takes place the entire class day for a full semester and includes observation, participation, and a minimum of 180 actual clock hours of teaching. A substantial portion of the 180 hours is in full day teaching under supervision of the assigned cooperating school teacher.

3. Description of the criteria for admission, retention, and exit from the program, including required GPA's and minimum grade requirements for the content courses accepted by the program.

Admission Procedures: To enter the Southeastern Louisiana University's Grades 7-12 initial teacher preparation program, candidates are required to submit an application to the Professional Program in Teacher Education, which is reviewed by the Selective Admission and Retention in Teacher Education (SARTE) Committee and by the Dean of the College of Education and Human Development (COEHD). To achieve *full status*, candidates must meet the following criteria:

1. Meet all requirements for exit from the Junior Division (Basic College):
 - a. Have twenty-four credit hours with a 2.0 GPA or better.
 - b. Pass ENG 101 and ENG 102 or 122 with proficiency as mandated by the Board of Regents.

- c. Pass MATH 160, 161, or 165 with proficiency as mandated by the Board of Regents.
2. Have at least a 2.5 GPA (based on a minimum of 30 credit hours).
3. Achieve a passing score on the PRAXIS I PPST or the CBPPST -Reading (172, 319), Writing (171, 316), and Mathematics (170, 315) tests.
4. Earn a grade of C or better in ENG 102.
5. Earn a grade of B or better in EDUC 201 (Introduction to Education) and EDUC 211 (Diversity in Education)
6. Complete a speech and hearing screening
7. Participate in a group interview screening.
8. Have never been convicted of a felony.

Candidates may be admitted with *provisional status* if they have a 2.5 GPA and a B or better in EDUC 201 and EDUC 211 but are deficient in one or more remaining components. Provisional students may not schedule professional courses beyond EDUC 204, however, they may take EPSY 301 (Educational Psychology of Children and Adolescents). Candidates who do not meet criteria for either full or provisional status receive *ineligible status*.

Portfolios: A performance-based portfolio consisting of reflections, artifacts, and evidence, which demonstrate that the knowledge, skills, and dispositions as indicated in the Louisiana Components of Effective Teaching and the Conceptual Framework is required. The portfolio (1) allows the student to demonstrate, through reflections, his/her understanding of how the artifacts contained in the portfolio meet the program outcomes; (2) provide a process by which a student can become a reflective practitioner to foster continuous improvement; and (3) documents a student's growth from the Introductory Level (novice stage) to a level of competence as an educator, the Competency Level. Through the portfolio process, evaluators will have an opportunity to identify areas for improvement at each level of assessment and develop a plan for remediation when necessary. By completing and submitting a portfolio, students will gain an understanding that they are ultimately responsible for acquiring the knowledge and skills necessary for being an effective classroom teacher. Students are required to submit an Introductory Portfolio before their first methods class (EDUC 328), a Developing Portfolio before student teaching, and a Competency Portfolio before graduation.

Retention Procedures: To remain in the Mathematics Education Program, candidates must maintain a 2.5 GPA or better and exhibit professional behaviors. On-going screening utilizing the standards of the Professional Program in Teacher Education will occur each semester. Students are permitted to enroll in an EDUC, ECE, and EPSY courses only twice. Students are permitted to repeat only two EDUC, ECE, EPSY courses. Students demonstrating behaviors or characteristics that make it questionable whether they can succeed in the teaching profession will be referred for review and may result in: 1) No action being taken but further observations, 2) Recommendation of a Professional Improvement Plan (monitored by the Coordinator of the Teacher Development Program), or 3) Referral to SARTE which may recommend probation with specified conditions, temporary suspension from the Teacher Education program with specified conditions, or expulsion for the Teacher Education program.

Appeal Procedures: Students who wish to appeal decisions of the SARTE Committee may do so in writing to the Dean. If students demonstrate behaviors, dispositions, or characteristics that make it questionable whether they can succeed in teaching, they will be referred a review. A review may result in: 1) No action being taken except for further observations, 2) Recommendation of a Professional Improvement Plan, monitored by the Coordinator of the Teacher Development Program, or 3) Referral to the SARTE Committee that may recommend probation with conditions, temporary suspension from the program with conditions, or expulsion.

Requirements for Student Teaching: Candidates must:

1. Be seniors. (Have at least ninety hours of credit).
2. Have been registered in the COEHD for at least three semesters.
3. Pass a proficiency examination in Standard English communication PPST or CBPPST Reading (172, 319), PPST or CBPPST Writing (171, 316), and a proficiency exam in mathematics PPST or CBPPST Math (170, 315).
4. Have earned an overall GPA of 2.5 and a GPA of 2.5 for all work done at Southeastern.
5. Have earned a grade of C or better in all EDUC, ETEC, and EPSY courses.
6. Pass the PRAXIS I PPST in Reading (172), Writing (171), and Mathematics (170) and PRAXIS II examinations in Principles of Learning and Teaching (PLT score = 154) and content—Mathematics: Content Knowledge (0061 score = 125)
7. Have completed EDUC 201 and EDUC 211 with a B or better. Have completed all remaining required courses in mathematics, education, and secondary teaching area with a C or better.
8. Completed EDUC 490 (methods) at Southeastern with a grade of C or better.
9. Have completed an approved Developing Level portfolio.
10. Have approval of the Director of Performance Assessment.
11. Have a statement from their department head certifying that they are competent in the subject matter in which they are seeking certification.

Requirements for Graduation: To graduate, candidates must:

1. Pass courses (with required grades) in the core curriculum and specialized education courses (see attachment)
2. Earn a cumulative or degree G.P.A. of 2.5 and a 2.5 cumulative or degree G.P.A. in all Southeastern work
3. Have no grade lower than a B in Education 201 and 211 and have no grade lower than a C in other professional courses (EDUC, ETEC, EPSPY).
4. Complete 270 hours in all-day, all-semester student teaching (180 hours of actual teaching)
5. Demonstrate computer literacy in the following ways: a. use computers to aid in learning, solving problems, and managing information; and b. have knowledge of function, applications, capabilities, limitations and related technology.
6. Have completed an approved Competency Level Portfolio.

4. Description of the relationship of the program to the unit's conceptual framework.

Southeastern Louisiana University's Mathematics Education Program reflects the integration of four critical components that provide direction for the development of effective education professionals who can successfully plan, develop, and implement curricula to meet the needs of diverse learners in today's world and to prepare students for the future. These components provide for innovative and progressive programs that develop candidates to become effective professionals who set the standard for excellence through best practices. A candidate completing a Mathematics Education Program in the College of Education and Human Development should be one who is well grounded in content knowledge (CK). They must demonstrate a depth of knowledge in mathematics and breadth of understanding of general subjects within the educational unit. The program reflects the belief illustrated in the conceptual framework that knowledge of the learner (KL) strongly impacts student learning. The program prepares candidates to demonstrate and value sensitivity to the needs of all learners and incorporate understanding of adolescent learners as individuals in teaching and decision-making.

The program recognizes that successful secondary school level professionals demonstrate use of strategies and methods (SM) that are effective and developmentally appropriate for the adolescent learner. Candidates should demonstrate best pedagogical practices through inquiry, creativity, and reflective thinking. As reflective practitioners, effective secondary mathematics teacher candidates consider and integrate complex information and use constructive problem-solving processes to meet the needs of secondary level learners. This component addresses all five standards.

Professional Standards (PS) are the fourth area of emphasis within the conceptual framework. Students in the Mathematics Education Program incorporate appropriate professional standards at the grade, state, and national level as they progress through their coursework. This area is modeled in the program which is developmentally appropriate and standards-based, enabling candidates to develop the knowledge, skills, and dispositions to become effective secondary level mathematics educators. Learner outcomes in each professional education course are aligned with the Louisiana Components of Effective Teaching (LCET), National Board for Professional Teaching Standards, Interstate New Teachers Assessment and Support Consortium (INTASC) and the Conceptual Framework of the College of Education and Human Development (COEHD).

The Mathematics Education Program is consistent with the focus of the conceptual framework in that each major is required to become knowledgeable in Mathematics, participate in a pedagogical program geared towards research-based strategies and methods, demonstrate professional skills and dispositions that will maximize learning, and engage in the planning, implementation, and evaluation of a variety of instructional strategies appropriate for adolescent learners. The program integrates technology and diversity which is supported in our teaching and reflected in our assessments.

5. Indication whether the program has a unique set of program assessments and their relationship of the program's assessments to the unit's assessment system.

The assessments used for the Mathematics Education Program are informed by the unit's assessments of the College of Education and Human Development and the Department of Teaching and Learning as they are interconnected in a way that informs, supports, and reflects growth and change in each other. The assessments provide key information as to how effectively candidates are building a knowledge base, developing lessons plans, constructing assessment, and demonstrating attributes within the components and domains of the Louisiana Components of Effective Teaching and other professional skills and dispositions. These areas are addressed in each program of the unit. The need to develop a unique instrument to ensure that students were familiar with and assessed in areas related to all of the National Council for Teachers of Mathematics standards was identified and completed as a student teacher addendum.

The *NCTM Addendum* is unique to this program and added to the *Final Report on Student Teaching*. The intent of these items is to specifically target the candidate's knowledge of components of certain standards. The addendum uses specific language of the NCTM standards in order to generate discussion regarding their meaning and implementation between student teachers, their classroom supervising teachers, and university supervisors. The instrument was developed and piloted in the fall semester of 2006. Data gathered from the instrument will be used to inform decisions regarding future use of the instrument, possible revisions, and program improvements.

**Section I
Program of Study**

**CURRICULUM IN MATHEMATICS EDUCATION GRADES 7-12
LEADING TO THE DEGREE OF BACHELOR OF SCIENCE**

FIRST YEAR

FIRST SEMESTER

English 101 or 121H	Freshman Composition or Ancient Epic: Literature and Composition	3
Mathematics 200	Calculus I	5
Computer Science 161	Algorithm Design and Implementation I	3
Library Science 102	Bibliography	1
Orientation 101	Freshman Orientation	0-1
Elective	(secondary teaching area)	3

SECOND SEMESTER

English 102 or 122H	Critical Reading and Writing or Modern Epic: Literature and Composition	3
Mathematics 201	Calculus II	5
Biological Science 151	General Biology I	3
Communication 210	Communicating in the Classroom	3
Elective	(secondary teaching area)	3

SECOND YEAR

FIRST SEMESTER

English 230, 231, or 232	World Literature (230), English Literature (231), or American Literature (232)	3
Mathematics 312	Calculus III	3
Chemistry 121 or Physics 221	General Chemistry I for Science Majors or General Physics (with Calculus)	3
Biological Science 153, Chemistry 122, or Physics 222	(must complete a one year sequence) General Biology II, General Chemistry II for Science Majors, or General Physics II (with calculus)	3
History 201 or 202	American History to 1877 or American History since 1877	3
Elective	(secondary teaching area)	4

SECOND SEMESTER

Mathematics 223	Discrete Mathematics	3
Education 201	Introduction to Education	1
Education 211	Diversity in Education	2
Social/Behavioral Science	(taken from Anthropology or Economics or Geography or Psychology or Sociology)	3
Elective	(secondary teaching area)	6

THIRD YEAR

FIRST SEMESTER

Mathematics 309	College Geometry	3
Mathematics 370	Introduction to Abstract Algebra	3
Educational Psychology 311	Adolescent Psychology	3
Mathematics Education 365	Experiences in School Mathematics I	2
Political Science 201	American Politics	3
Special Education 210	Characteristics of Individuals with Exceptionalities	2

SECOND SEMESTER

Mathematics 360	Applied Linear Algebra	3
Mathematics 380 or 417	Applied Statistics with Probability or Mathematical Statistics	3
Education 407	Tests and Measurement	3
Education 472	Teaching Reading in the Content Areas	3
Education 475	Current Issues in Secondary Education	1
Mathematics Education 375	Experiences in School Mathematics II	2

FOURTH YEAR

FIRST SEMESTER

Mathematics 460	Secondary Mathematics Methods	3
Mathematics Elective	(400 level)	3
Education 490	Special Methods in High School Subjects	6
Fine Art	(taken from Visual Art or Music or Dance or Theatre)	3
Educational Psychology 315	Classroom Management and Motivation for Beginning Teachers	3

SECOND SEMESTER

Education 486	Student Teaching in the Secondary Schools	9
Elective	(secondary teaching area)	3

ATTACHMENT A
Candidate Information

Directions: Provide three years of data on candidates enrolled in the program and completing the program, beginning with the most recent academic year for which numbers have been tabulated. Report the data separately for the levels/tracks (e.g., baccalaureate, post-baccalaureate, alternate routes, master's, doctorate) being addressed in this report. Data must also be reported separately for programs offered at multiple sites. Update academic years (column 1) as appropriate for your data span. Create additional tables as necessary.

Program: B.S. Mathematics Education		
Academic Year	# of Candidates Enrolled in the Program	# of Program Completers¹
Fall 2006	42	2
2005-2006	49	4
2004-2005	48	5
2003-2004	59	3

¹ NCATE uses the Title II definition for *program completers*. Program completers are persons who have met all the requirements of a state-approved teacher preparation program. Program completers include all those who are documented as having met such requirements. Documentation may take the form of a degree, institutional certificate, program credential, transcript, or other written proof of having met the program's requirements.

**Attachment B
Faculty Information
NCTM**

Directions: Complete the following information for each faculty member responsible for professional coursework, clinical supervision, or administration in this program.

Faculty Member Name	Highest Degree, Field, & University	Assignment: Indicate the role of the faculty member	Faculty Rank	Tenure Track (Yes/No)	Scholarship, Leadership in Professional Associations, and Service, List up to 3 major contributions in the past 3 years	Tenure
Berry, Elizabeth	M. Ed Special Education, Louisiana State University	Faculty EDUC 201 EDUC 211	Instructor	No	ACTE-Member; Foundations Committee, Chair; University Honors Committee, Chair	Cer Sp PK
Bidner, Sara	Ph.D. Music Education, Louisiana State University	Faculty EDUC 490	Associate Professor	Yes	Preservice Elementary Education Classroom Teachers' Attitudes Toward Music in the School Curriculum and Teaching Music, Presentations, Music Educators National Conference, National Biennial In-Service Conference, Minneapolis, MN, April, 2004; Chair, Curriculum Advisory Council, Department of Teaching & Learning (2003-2005); National Chair (200-2004). Society for Music Teacher Education (SMTE). MEND: The National Association for Music Education	Cer Mu PK Oth Sup
Davis, Kimberly	M. Ed	Southern University and A&M College	SPED 210	No		
Day, Rebecca	Ed. D. Home Economics Education, Oklahoma State University	Director of Student Teachers EDUC 486	Associate Professor	Yes	Chair of the Council of Teacher Education, MAT Review Committee Member	Cer PK Oth
Echols, Celina	Ph.D. Secondary Ed.	Faculty EPSY 311	Associate Professor	Yes	Articles in the AASA Professor (2006), NCPEA Connexions (2006) & E. Mellen Press (2004)	6 y
Ennis, Willie	Ph.D. Ed. Technology	Faculty EDUC 475	Associate Professor	Yes	Articles in Technology & Learning (2004), Journal of Faculty Development (2004), and Counseling African American Clients (2004)	No
Felder, Paulette	M. Ed. +30 Elementary Education, Southeastern Louisiana University	Faculty EDUC 201 EDUC 211	Instructor	No	Foundations Committee Member, Usher-Columbia Theater, Assist with Rock and Roar	Cer Gra PK Oth
Golding, Tena	Ph.D. Mathematics Education, Louisiana State University	Faculty Math 365 Math 375 Math 460	Professor	Yes		

Goodwin, Paul	EdD in Secondary Education, University of Nevada	Faculty EDUC 201 EDUC 211	Assistant Professor	No		4 y 28 sup
Keller, Gerald	Ph.D. Educational Leadership, University of New Orleans	PK-16 Field Placement C	Assistant Professor	Yes	Developed Field Experience Handbook, Organized field experience procedure to comply with state mandate of 180 hours of field experience prior to student teaching, Chair NCATE Standard III committee	Cer Gra PK Oth
Rhea, Heidi	M.A. Elementary Education, Ball State University	Faculty EDUC 407	Instructor	No	Presenter-LSTA , Presenter -NSTA	Cer Gra PK Oth
Sadden, Leah	Ph.D. Reading Education, University of Georgia	Faculty EDUC 472	Associate Professor	Yes	Created professional organization for teacher candidates. (SEAS) Southeastern Education Association of Students; Conducted workshop - Effective Strategies for Teaching English Language Learners: Conducted workshop – Identification of the Language Level of the ELL	Cer Gra Spe PK Oth
Slaton, Edith	Ph.D. Reading	Graduate Coordinator Faculty EPSY 315	Assistant Professor	Yes	Pass-Port training, computer assisted instruction, 7/21/2006, Advanced Blackboard Training, 8/25/2005	19
Van der Jagt, John	Ph. D	LD Southern University	SPED 210	No	17 ½ yrs.	

SECTION II—LIST OF ASSESSMENTS

Name of Assessment	Type or Form of Assessment	When the Assessment is Administered
1. Licensure Assessment	PRAXIS II	Portal 3 (passing required before progression to student teaching)
2. Assessment of content knowledge in mathematics	Required grades in mathematics courses in program of study	Ongoing throughout program
3. Assessment of candidate ability to plan instruction	Resource Portfolio tied to NCTM standards required and graded in Math 460 (Secondary Mathematics Methods)	Portal 3 (prior to student teaching)
4. Final Report on Student Teaching	Performance-based	Portal 4 (student teaching)
5. Impact of Instruction	Performance-based	Portal 4 (student teaching)
6. Mathematics (NCTM) Addendum to Final Report on Student Teaching/Internship addressing NCTM Standard 8	Assessment completed by faculty, supervising teacher, principal	Portal 4 (student teaching)
7. Assessment on Diversity addressing NCTM Standards 7,8	Project on diversity required and graded in Math 460 (Secondary Mathematics Methods)	Portal 3 (prior to student teaching)

SECTION III—RELATIONSHIPS TO STANDARDS

NCTM Standard	Applicable Assessments from Section II
1. Knowledge of Problem Solving	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 <u>x</u> _#6 ___#7
2. Knowledge of Reasoning and Proof	___#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7
3. Knowledge of Mathematical Communication	___#1 <u>x</u> _#2 <u>x</u> _#3 <u>x</u> _#4 ___#5 <u>x</u> _#6 ___#7
4. Knowledge of Mathematical Connections	<u>x</u> _#1 <u>x</u> _#2 ___#3 <u>x</u> _#4 ___#5 ___#6 ___#7
5. Knowledge of Mathematical Representations	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 <u>x</u> _#6 ___#7
6. Knowledge of Technology	___#1 <u>x</u> _#2 <u>x</u> _#3 ___#4 ___#5 <u>x</u> _#6 ___#7
7. Dispositions	___#1 ___#2 <u>x</u> _#3 <u>x</u> _#4 <u>x</u> _#5 ___#6 <u>x</u> _#7
8. Knowledge of Mathematics Pedagogy	___#1 <u>x</u> _#2 <u>x</u> _#3 <u>x</u> _#4 <u>x</u> _#5 <u>x</u> _#6 <u>x</u> _#7
9. Knowledge of Number and Operation	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7
10. Knowledge of Different Perspectives on Algebra	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7
11. Knowledge of Geometries	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7
12. Knowledge of Calculus	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7
13. Knowledge of Discrete Mathematics	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7
14. Knowledge of Data Analysis, Statistics, and Probability	<u>x</u> _#1 <u>x</u> _#2 ___#3 ___#4 ___#5 ___#6 ___#7

15. Knowledge of Measurement	<u>x</u> _#1 <u>x</u> _#2 <u>x</u> _#3 ___#4 ___#5 ___#6 ___#7
16.1 Field-Based Experiences	Section I
16.2 Field-Based Experiences	Section I
16.3 Field-Based Experiences	___#1 <u>x</u> _#2 ___#3 <u>x</u> _#4 <u>x</u> _#5 ___#6 ___#7

SECTION IV—EVIDENCE FOR MEETING STANDARDS

Assessment 1: Content Knowledge

1. Description of the Assessment:

Successful completion of the PRAXIS II: Mathematics Content Knowledge (0061) offered by the Educational Testing Service (ETS) is required of teaching candidates in Portal 3, prior to progression to student teaching in Portal 4. This is the test required for state licensure. In fact, the state of Louisiana requires a score of 125 or higher. The test is 50 multiple-choice questions designed to test the ability to understand and work with mathematical concepts, to reason mathematically, to integrate knowledge of different areas of mathematics and to develop mathematical models of real-life situations. The two hour test requires a graphing calculator.

2. Alignment of NCTM Standards and Indicators with PRAXIS II as determined by an NCTM panel (see <http://www.nctm.org/about/ncate/#assessment>):

Program Standard	Indicators Addressed
Standard 1: Knowledge of Mathematical Problem Solving	1.1, 1.2
Standard 2: Knowledge of Reasoning and Proof	None
Standard 3: Knowledge of Mathematical Communication	None
Standard 4: Knowledge of Mathematical Connections	4.1, 4.2
Standard 5: Knowledge of Mathematical Representation	5.1, 5.2, 5.3
Standard 6: Knowledge of Technology	None
Standard 7: Dispositions	None
Standard 8: Pedagogy	None
Standard 9: Knowledge of Number and Operation	9.1, 9.2, 9.3, 9.4, 9.5, 9.6, 9.7, 9.8, 9.9
Standard 10: Knowledge of Different Perspectives on Algebra	10.1, 10.2, 10.4
Standard 11: Knowledge of Geometries	11.3, 11.5, 11.6
Standard 12: Knowledge of Calculus	12.1, 12.2, 12.3
Standard 13: Knowledge of Discrete Mathematics	13.1, 13.2
Standard 14: Knowledge of Data Analysis, Statistics, and Probability	14.1
Standard 15: Knowledge of Measurement	15.1, 15.2, 15.3

3. Data Findings:

Candidate 1	142
Candidate 2	127

Two candidates graduated December 9, 2006. Both took the PRAXIS II test, and both candidates received above the required passing score for the State of Louisiana (125). Candidates who do not pass are not allowed to continue to Portal 4: student teaching. The passing rate for teaching candidates is thus 100% by design. The PRAXIS II scores were obtained from Southeastern's Department of Institutional Research. Further PRAXIS II data is included as part of Attachment C for this assessment.

4. Data Interpretation:

Overall, candidates have demonstrated their knowledge of the mathematics content needed to teach secondary mathematics as shown in the alignment above. This alignment with NCTM indicators was determined by an NCTM panel. Students are required to successfully complete the PRAXIS II prior to student teaching.

5. Attachments for Assessment 1: Attachment A (assessment tool) and Attachment B (scoring guide) are not required for Assessment 1. Attachment C (candidate data) is shown below:

Academic Year and Number of Completers	Praxis Scores and Percentiles
Fall 2006—2 completers	142 (50 th), 127 (26 th)
2005-2006—4 completers	148 (62 nd), 133 (35 th), 133 (35 th), 125 (23 rd)
2004-2005—5 completers	137 (42 nd), 135 (38 th), 135 (38 th), 132 (35 th), 125 (25 th)
2003-2004—3 completers	138 (45 th), 630*, 580*

*Note: The Praxis II exam for mathematics changed formats (0060 to 0061). These two scores reflect the 0060 assessment.

Assessment 2: Content Knowledge

1. Description of the Assessment:

Teacher candidates must receive the grade of a C or better in required mathematics courses to continue in the program. The required courses included in this program are the three-course calculus sequence (200, 201, and 312), discrete mathematics (223), statistics and probability (380 or 417), linear algebra (360), abstract algebra (370), college geometry (309), secondary mathematics methods (460), and a 400 level mathematics elective. In addition, experiences in school mathematics I and II (365 and 375) are assessed as pass/fail and teacher candidates are required to receive the grade of pass to continue in the program.

Individual faculty members of the Department of Mathematics determine the final grade in each course. The faculty does not necessarily know which students in their classes are teacher candidates, except in the cases of Math 365, Math 375, and Math 460, which are courses offered exclusively to teaching candidates. The teacher candidates' advisors are responsible for monitoring this data. Each teacher candidate is required to meet with an assigned faculty advisor every semester at which time the advisor assesses the data and removes a registration hold so that the teacher candidate can register for classes.

2. Alignment of NCTM Standards and Indicators with Required Grades:

Calculus Sequence (Maths 200, 201, 312)	1.1, 1.2, 1.3, 1.4, 2.1, 3.1, 3.2, 4.1, 4.2, 4.3, 5.1, 5.2, 6.1, 10.1, 10.4, 12.1, 12.2, 12.3, 12.4
Discrete Mathematics (Math 223)	2.1, 2.3, 2.4, 3.1, 3.2, 3.3, 13.1
Statistics and Probability (Maths 380, 417)	1.1, 1.2, 4.2, 5.1, 5.2, 6.1, 14.1, 14.2, 14.3, 14.4, 14.5, 14.6, 14.8
Linear Algebra (Math 360)	1.1, 1.2, 2.1, 2.3, 2.4, 3.2, 5.3, 6.1, 9.9, 10.2, 10.4, 10.5
Abstract Algebra (Math 370)	1.1, 1.2, 1.3, 2.1, 2.2, 2.3, 2.4, 3.1, 3.2, 9.1, 9.7, 9.8, 10.3
College Geometry (Math 309)	2.1, 2.3, 2.4, 3.1, 3.2, 3.3, 3.4, 11.1, 11.2, 11.3, 11.4, 11.5, 11.6, 11.7, 11.8
Secondary Mathematics Methods (Math 460)	3.3, 3.4, 4.1, 4.3, 5.2, 6.1, 7.1, 7.2, 7.5, 7.6, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.9, 15.1, 15.2
Experiences in School Mathematics (Maths 365,375)	16.1

3. Data Findings:

Required Mathematics Courses and One 400 Level Mathematics Elective

	200	201	312	223	380/417	360	370	309	460	365	375	427
Candidate 1	A	A	A	B	A	B	B	B	B	NA	NA	B
Candidate 2	B	A	A	C	B	A	C	C	C	P	P	B

Both candidates who finished the Mathematics Education program in December 2006 obtained the required grades in the courses listed above. (Both candidates took Math 427, Introduction to Topology, as the 400 level elective.) Candidates who do not earn at least a C in these required courses (or pass Math 365, 375) are not allowed to continue to Portal 4: student teaching. Thus 100% of the teaching candidates who finish the program pass this assessment by design. The data was obtained from student transcripts. Faculty and administrators in the Mathematics Department have access to candidate's transcripts.

4. Data Interpretation:

Evidence that the courses listed in this assessment are aligned with the specific NCTM indicators consists of the course objectives developed by the Mathematics Department. Objectives (objectives for each course approximately three to five pages in length) are listed for each course offered by the Mathematics Department. This list was formerly available online as part of the Mathematics Department website and certainly will be available after the new website is created. It is a compulsory activity (listed on the faculty annual evaluation instrument) that an instructor teach every objective listed for a course. A grade of C or better in one of these content courses is evidence that a teaching candidate has satisfactorily mastered a preponderance of these objectives. Furthermore, the mathematics faculty has recently developed scoring guides for individual courses. Several of these guides are included in Attachment B for this assessment.

Candidate 1 did not take Math 365, math 375 as these courses are new. Candidate 1 and teaching candidates from other disciplines formerly obtained field experiences prior to student teaching in EDUC 490.

5. Attachments for assessment 2

Attachment A
Mathematics Education Curriculum
2006—2007

<u>Mathematics</u>	(38)
*Math 200	___5___
*Math 201	___5___
*Math 223	___3___
*Math 309	___3___
*Math 312	___3___
*Math 360	___3___
*Math 370	___3___
*Math 460	___3___
*Math 380 or 417	___3___
*Math ____ (400 level) ³	___3___
*MTED 365	___2___
*MTED 375	___2___

<u>English</u>	(9)
Engl 101 or 121H	___3___
*Engl 102 or 122H	___3___
Engl 230/231/232	___3___

<u>Social Studies</u>	(6)
Poli 201	___3___
Hist 201 or 202	___3___

<u>Education</u>	(33)
**Educ 201	___1___
↳(Take together with Educ 211)	
*Educ 211	___2___
*Educ 407	___3___
*Educ 472	___3___
*Educ 475	___1___
*Educ 486	___9___
*Educ 490	___6___
*Epsy 311	___3___
*Epsy 315	___3___
*Sped 210	___2___

<u>Science</u>	(9)
Gbio 151	___3___
Chem 121	
or Phys 221	___3___
Gbio 153	
or Chem 122	
or Phys 222	___3___

<u>Other</u>	(13-14)
Orientation 101	___0-1___
Comm 210	___3___
Cmps 161	___3___

¹ Fine Art	___3___
Library Science 102	___1___
² Social/Behavioral Science	___3___

Secondary Teaching Area (19)

*Elective	_____	___3___
*Elective	_____	___4___

¹ To be taken from Art, Music, Dance, or Theatre
² To be taken from Anthropology, Economics, Geography, Psychology, or Sociology
³ Math 467 may not be used to satisfy this requirement

* A grade of "C" or better is required in these courses

** A grade of "B" or better is required in these courses

Attachment B for Assessment 2
Selected Scoring Guides for Math 201, 380, 460

Scoring Guide for Grades, MATH 201

A

- Able to set up and compute areas of regions, volumes, and arc lengths proficiently
- Able to integrate functions using completing the square, integration by parts, and partial fractions proficiently
- Able to compute trigonometric integrals and perform trigonometric substitutions proficiently
- Able to calculate limits of functions involving indeterminate forms and L'Hopital's Rule proficiently
- Able to evaluate improper integrals proficiently
- Able to determine the convergence or the divergence of a given sequence or series using a variety of convergence tests proficiently
- Able to calculate Taylor and Maclaurin Series for a given function proficiently
- Able to use parametric equations and polar coordinates proficiently

B

- Able to set up and compute areas of regions, volumes, and arc lengths with very few errors
- Able to integrate functions using completing the square, integration by parts, and partial fractions with very few errors
- Able to compute trigonometric integrals and perform trigonometric substitutions with very few errors
- Able to calculate limits of functions involving indeterminate forms and L'Hopital's Rule with very few errors
- Able to evaluate improper integrals with very few errors
- Able to determine the convergence or the divergence of a given sequence or series using a variety of convergence tests with very few errors
- Able to calculate Taylor and Maclaurin Series for a given function with very few errors
- Able to use parametric equations and polar coordinates with very few errors

C

- Able to set up and compute areas of regions, volumes, and arc lengths with occasional errors
- Able to integrate functions using completing the square, integration by parts, and partial fractions with occasional errors
- Able to compute trigonometric integrals and perform trigonometric substitutions with occasional errors
- Able to calculate limits of functions involving indeterminate forms and L'Hopital's Rule with occasional errors
- Able to evaluate improper integrals with occasional errors

- Able to determine the convergence or the divergence of a given sequence or series using a variety of convergence tests with occasional errors
- Able to calculate Taylor and Maclaurin Series for a given function with occasional errors
- Able to use parametric equations and polar coordinates with occasional errors

D

- Able to set up and compute areas of regions, volumes, and arc lengths with frequent errors
- Able to integrate functions using completing the square, integration by parts, and partial fractions with frequent errors
- Able to compute trigonometric integrals and perform trigonometric substitutions with frequent errors
- Able to calculate limits of functions involving indeterminate forms and L'Hopital's Rule with frequent errors
- Able to evaluate improper integrals with frequent errors
- Able to determine the convergence or the divergence of a given sequence or series using a variety of convergence tests with frequent errors
- Able to calculate Taylor and Maclaurin Series for a given function with frequent errors
- Able to use parametric equations and polar coordinates with frequent errors

F

- Not able to do most of the items mentioned under "D"

Scoring Guide for Grades, MATH 380

A

- Able to correctly compute test statistics and critical values or p-values, and write a correct conclusion for a hypothesis test of the population mean or population proportion.
- Able to correctly compute confidence intervals and correctly interpret what they mean.
- Able to correctly compute the correlation coefficient and the coefficient of determination for two numeric variables and correctly interpret these values in terms of the corresponding fitted line plot.
- Able to correctly compute probabilities involving the normal, student-t, binomial or Poisson distributions and correctly interpret the resulting values.
- Able to determine whether or not a given function is a probability distribution function, and if it is not a probability distribution function, change the function so that it is a probability distribution function.
- Able to correctly construct a histogram with a given number of classes and correctly interpret the resulting graph.
- Able to correctly construct a modified boxplot, and correctly interpret the resulting graph.

B

- Able to correctly compute test statistics and critical values or p-values, and write mostly correct conclusions for hypothesis tests of the population mean or population proportion.
- Able to correctly compute confidence intervals in most cases and correctly interpret what they mean.
- Able to correctly compute the correlation coefficient and the coefficient of determination for two numeric variables and interpret these values correctly most of the time in terms of the corresponding fitted line plot.
- Able to correctly compute probabilities involving the normal, student-t, binomial or Poisson distributions most of the time and interpret the resulting values correctly.
- Able to determine whether or not a given function is a probability distribution function, and if it is not a probability distribution function, say what criteria the function does not satisfy.
- Able to correctly construct a histogram with a given number of classes most of the time and correctly interpret the resulting graph.
- Able to correctly construct a modified boxplot most of the time, and correctly interpret the resulting graph.

C

- Able to correctly compute test statistics and critical values or p-values most of the time, and sometimes write correct conclusions for hypothesis tests of the population mean or population proportion.
- Able to correctly compute confidence intervals most of the time and interpret correctly what they mean some of the time.
- Able to correctly compute the correlation coefficient and the coefficient of determination for two numeric variables most of the time and most of the time interpret these values correctly in terms of the corresponding fitted line plot.
- Able to correctly compute probabilities involving the normal, student-t, binomial or Poisson distributions most of the time and interpret the resulting values correctly most of the time.
- Able to determine whether or not a given function is a probability distribution function most of the time, and if it is not a probability distribution function, say what criteria the function does not satisfy.
- Able to correctly construct a histogram with a given number of classes most of the time and correctly interpret the resulting graph most of the time.
- Able to correctly construct a modified boxplot most of the time, and correctly interpret the resulting graph most of the time.

D

- Able to correctly compute test statistics and critical values or p-values most of the time, and sometimes write correct conclusions for hypothesis tests of the population mean or population proportion.
- Able to correctly compute confidence intervals in most cases and correctly interpret what they mean some of the time.
- Able to correctly find the correlation coefficient and the coefficient of determination for two numeric variables most of the time and interpret these values correctly in terms of the corresponding fitted line plot some of the time.
- Able to correctly compute probabilities involving the normal, student-t, binomial or Poisson distributions most of the time and interpret the resulting values correctly some of the time.
- Able to determine whether or not a given function is a probability distribution function most of the time, and if it is not a probability distribution function, most of the time say what criteria the function does not satisfy.
- Able to construct a histogram with the wrong number of classes, and correctly interpret the resulting graph most of the time.
- Able to construct a boxplot without correctly identifying outliers, and correctly interpret the resulting graph most of the time.

F

- Not able to correctly compute test statistics and critical values or p-values most of the time or never writes correct conclusions for hypothesis tests of the population mean or population proportion.

- Not able to correctly compute confidence intervals in most cases or never correctly interprets what they mean.
- Not able to correctly compute the correlation coefficient and the coefficient of determination for two numeric variables most of the time or never interprets these values correctly in terms of the corresponding fitted line plot.
- Not able to correctly compute probabilities involving the normal, student-t, binomial or Poisson distributions most of the time and never interprets the resulting values correctly.
- Not able to determine whether or not a given function is a probability distribution function most of the time, and if it is not a probability distribution function, cannot say what criteria the function does not satisfy most of the time.
- Not able to construct a histogram with the given number of classes, and does not correctly interpret the resulting graph most of the time.
- Not able to construct a modified boxplot, and does not correctly interpret the resulting graph most of the time.

Scoring Guide for Grades, MATH 460

A

- Able to solve algebra, geometry, probability, trigonometry and elementary calculus problems proficiently.
- Able to consistently create Standards-based lesson plans with; clear and appropriate objectives, effective anticipatory, well-structured activities that engage students' interests and intellect, and an appropriate closure.
- Consistently able to identify and use appropriate technology to improve the presentation, reinforce mathematical content, or to pursue mathematical investigations.
- Able to identify and use real-world connections to deepen students' understanding of the mathematics being studied.
- Able to create and discuss strategies to orchestrate classroom discourse that promote the investigation and growth of mathematical ideas.
- Able to identify and access numerous professional resources to support and enhance the secondary mathematics classroom.
- Able to clearly and accurately discuss the impact of the NCTM's *Principles and Standards for School Mathematics*, and other selected professional documents on the current mathematics curriculum.

B

- Able to solve algebra, geometry, probability, trigonometry and elementary calculus problems with very few errors.
- Able to create Standards-based lesson plans with; clear and appropriate objectives, effective anticipatory, well-structured activities that engage students' interests and intellect, and an appropriate closure.
- Able to identify and use appropriate technology to improve the presentation, reinforce mathematical content, or to pursue mathematical investigations.
- Able to use real-world connections to deepen students' understanding of the mathematics being studied.
- Able to discuss strategies to orchestrate classroom discourse that promote the investigation and growth of mathematical ideas.
- Able to identify and access professional resources to support and enhance the secondary mathematics classroom.
- Able to discuss the impact of the NCTM's *Principles and Standards for School Mathematics*, and other selected professional documents on the current mathematics curriculum.

C

- Able to solve algebra, geometry, probability, trigonometry and elementary calculus problems with occasional errors.

- Lessons are not always Standards-based and often contain unclear and inappropriate objections. Activities often lack structure. An effective anticipatory or an appropriate closure may be missing.
- Often able to identify and use appropriate technology to improve the presentation, reinforce mathematical content, or to pursue mathematical investigations.
- Able to sometimes use real-world connections to deepen students' understanding of the mathematics being studied.
- Able to discuss some strategies to orchestrate classroom discourse that promote the investigation and growth of mathematical ideas.
- Able to identify and access some professional resources to support and enhance the secondary mathematics classroom.
- Has difficulty discussing the impact of the NCTM's *Principles and Standards for School Mathematics*, and other selected professional documents on the current mathematics curriculum.

D

- Solutions to algebra, geometry, probability, trigonometry and elementary calculus problems have frequent errors.
- Lessons are rarely Standards-based and often contain unclear and inappropriate objections. Activities often lack structure. An effective anticipatory or an appropriate closure may be missing.
- Rarely able to identify and use appropriate technology to improve the presentation, reinforce mathematical content, or to pursue mathematical investigations.
- Has difficulty using real-world connections to deepen students' understanding of the mathematics being studied.
- Is unsure of strategies to orchestrate classroom discourse that promote the investigation and growth of mathematical ideas.
- Able to identify and access a few professional resources to support and enhance the secondary mathematics classroom.
- Unsure of the impact of the NCTM's *Principles and Standards for School Mathematics*, and other selected professional documents on the current mathematics curriculum.

F

- Solutions to algebra, geometry, probability, trigonometry and elementary calculus problems are incomplete and often incorrect.
- Lessons are not Standards-based and contain unclear and inappropriate objections. Activities lack structure. An effective anticipatory or an appropriate closure may be missing.
- Unable to identify and use appropriate technology to improve the presentation, reinforce mathematical content, or to pursue mathematical investigations.
- Unable to use real-world connections to deepen students' understanding of the mathematics being studied.
- Unable to discuss strategies to orchestrate classroom discourse that promote the investigation and growth of mathematical ideas.

- Limited ability to identify and access professional resources to support and enhance the secondary mathematics classroom.
- Incorrectly discusses the impact of the NCTM's *Principles and Standards for School Mathematics*, and other selected professional documents on the current mathematics curriculum.

Attachment C for Assessment 2
Candidate Data

Required Mathematics Courses and One 400 Level Mathematics Elective

	200	201	312	223	380/417	360	370	309	460	365	375	427
Candidate 1	A	A	A	B	A	B	B	B	B	NA	NA	B
Candidate 2	B	A	A	C	B	A	C	C	C	P	P	B

Assessment 3: Pedagogical Knowledge, Skills, and Dispositions

1. Description of the Assessment:

In Math 460 (Secondary Mathematics Methods), teaching candidates are required to develop a Resource Portfolio that includes five lesson plans that are each based on an NCTM content standard and classroom tested. For each of five NCTM content standards, students must also develop a teaching game or manipulative activity and a technology activity. The Measurement Standard must be one of the five standards addressed. In addition, for one of the standards teaching candidates must also develop a project using cooperative grouping with assessment information, a sample test and rubric, and one article review. This 100 point Resource Portfolio counts for 25% of the final grade in Math 460. The Resource Portfolio is assessed by the faculty instructor assigned to Math 460. Students must also present the lesson plans and activities, and critically evaluate the presentations of others.

2. Alignment of NCTM Standards and Indicators with Resource Portfolio assessment:

This assessment aligns with NCTM indicators 3.1, 3.2, 3.3, 6.1, 7.2, 7.5, 7.6, 8.2, 8.4, 8.6, 8.7, 8.9, 15.1, 15.2

3. Data Findings:

Two candidates finished the Mathematics Education program in December 2006.

Candidate 1	94.5
Candidate 2	94.5

The data was obtained from the instructor of Math 460.

4. Data Interpretation:

By successfully completing the Resource Portfolio as part of Math 460 teaching candidates exhibited knowledge of NCTM content standards, the ability to create

lesson plans that are centered on these standards and infused with technology, hands-on activities, and group activities, and the awareness of pedagogical articles that help improve such lessons. The Measurement standard is required to be addressed by all teaching candidates. Candidates also developed their skills in communication of mathematics and critically evaluated the work of others.

5. Attachments for Assessment 3

Attachment A for Assessment 3
Excerpt from Syllabus for Math 460

Course Requirements and evaluation: You are expected to attend ALL classes and participate in discussions and activities. In preparation for your role as a teacher, you will be asked to give some type of oral presentation each week. You must have a TI-83 graphics calculator. There will be a possible **400 points** in this class.

Midterm 100 points

Final 100 points

Class assignments 50 points

May include projects, quizzes, presentations and activities

Problems sets 50 points

Resource Portfolio 100 points

For each of the 5 content standards you must include the following:

- Lesson plan (8 pts.) - must be classroom tested and Standards-based
- Hands-on activity (4 pts.) - teaching game or a manipulative activity
- Technology activity (4 pts.) -Internet, software, calculator, etc.

You must also include the following for one content strand (you choose).

- Project using cooperative grouping with assessment information (5 pts.)
- A sample test & rubric (5 pts.)
- One article review (5 pts.)

Your portfolio must include a list of web resources (5 pts.)

Attachment B for Assessment 3
Scoring Guide for Lesson Plan Portion of Rubric Portfolio

Math 460/560: Lesson Plan Checklist

Title of Lesson: _____ **Name:** _____

CATEGORY	RESPONSIBILITIES
Preliminaries	Objectives are clearly stated.
	Each objective for the lesson was appropriate.
	GLE was stated
	NCTM process standard was stated and justified based on the lesson.
	NCTM process standard was appropriately reflected in the lesson.
Teaching Plan	Anticipatory - an effective and appropriate attention-getting device was used.
	The information and arguments/details were easy to follow.
	Times allowed for each activity were reasonable.
	Activities allow active involvement of students.
	Questions were clear and pertinent. (Must have at least 2)
	Technology or real-world applications/connections improved the presentation or reinforced main points.
	An appropriate closure/wrap-up is given where the lesson is concluded and main points are reviewed.
	Plans for individual differences are indicated and justified in the lesson.
All needed materials were listed.	
Assessment	Each objective was assessed.
	Expectations for the topic were clearly communicated throughout the lesson.
	Lesson could easily be replicated.

Considering the checklist above, please indicate your overall evaluation of the lesson by circling the appropriate number on the scale below.

8	7	6	5	4	3	2	1
Superior		Proficient		Adequate		Limited	

Lesson Score _____

Candidate 1	94.5
Candidate 2	94.5

Assessment 4: Pedagogical Knowledge, Skills, and Dispositions

1. Description of the Assessment:

The Final Report of Student Teaching assesses the abilities of a teaching candidate to effectively plan for instruction, to manage time and the classroom environment, and to effectively deliver appropriate content. The assessment also includes ratings of professional attributes and characteristics. The evaluation is completed by the student, supervising teacher, and the University supervisor at the end of the semester of student teaching (Portal 4).

2. Alignment of NCTM Standards and Indicators with Final Report of Student Teaching:

This assessment aligns with NCTM indicators 3.1, 3.2, 3.4, 4.2, 7.1, 7.2, 7.3, 7.4, 7.6, 8.1, 8.2, 8.3, 8.4, 16.2

3. Data Findings:

The data indicates that both teaching candidates scored at the two highest levels for all but two skills assessed in the instrument. Candidate 2 scored a 1 out of 4 for the question of “Observes and/or participates in team evaluations (IEP’s, etc.)” The data was obtained from the College of Education and Human Development.

4. Data Interpretation:

The Final Report of Student Teaching reflects the Louisiana Components of Effective Teaching and is completed jointly by the student, the supervising teachers, and the University supervisor. The evaluation is based upon a semester of student teaching and therefore directly assesses the abilities of a teaching candidate to effectively plan for instruction, to manage time and the classroom environment, and to effectively deliver appropriate content. The preponderance of scores at ratings of 3 and 4 is evidence that teaching candidates are using certain skills competently with frequency or proficiently with consistency.

5. Attachments for Assessment 4

Directions: For each attribute/characteristic, select **ONE** adjective or statement that describes the behavior the student typically displays. Please elaborate further in the comments section when additional feedback will help the student continue to progress.

1) Attendance	2) Punctuality
<input type="checkbox"/> Frequently absent <input type="checkbox"/> Rarely absent <input type="checkbox"/> Exemplary attendance	<input type="checkbox"/> Frequently late <input type="checkbox"/> Generally punctual <input type="checkbox"/> Always on time
3) Professional Appearance	4) Oral Expression
<input type="checkbox"/> Occasionally appears inappropriately/unprofessionally dressed <input type="checkbox"/> Is usually dressed appropriately <input type="checkbox"/> Always dresses/appears in a professional manner	<input type="checkbox"/> Makes frequent usage and/or grammatical errors <input type="checkbox"/> Inarticulate <input type="checkbox"/> Articulate <input type="checkbox"/> Expressive, animated
5) Written Expression	6) Tact/Judgement
<input type="checkbox"/> Written work contains misspellings and/or grammatical errors <input type="checkbox"/> Written work is often unclear and disorganized <input type="checkbox"/> Written work is organized and clearly expresses ideas	<input type="checkbox"/> Thoughtless: Highly insensitive to others' feelings and opinions <input type="checkbox"/> Somewhat or sometimes insensitive and undiplomatic <input type="checkbox"/> Perceives what to do or say in order to maintain good relations with others and responds accordingly <input type="checkbox"/> Diplomatic: Highly sensitive to others' feelings and opinions
7) Reliability/Dependability	8) Self-Initiative/Independence
<input type="checkbox"/> Sometimes fails to complete assigned tasks and duties <input type="checkbox"/> Sometimes needs to be reminded to attend to assigned tasks/duties <input type="checkbox"/> Responsible: Attends to assigned tasks/duties on schedule without prompting <input type="checkbox"/> Self-starter: Perceives needs and attends to them immediately	<input type="checkbox"/> Passive: Depends on others for directions, ideas and guidance <input type="checkbox"/> Has good ideas, works effectively with limited supervision <input type="checkbox"/> Creative and resourceful; independently implements plans
9) Self-Confidence	10) Collegiality
<input type="checkbox"/> Anxious: Often appears self-conscious, nervous <input type="checkbox"/> Arrogant: Has unfounded belief in abilities <input type="checkbox"/> Usually confident – comfortable in classroom situations <input type="checkbox"/> Realistically self-assured; competently handles class demands	<input type="checkbox"/> Often works in isolation <input type="checkbox"/> Reluctant to share ideas and materials <input type="checkbox"/> Willingly shares ideas and materials

11) Interaction with Students			12) Response to Students' Needs
<input type="checkbox"/> Can appear threatening or antagonistic towards students <input type="checkbox"/> Shy: Hesitant to work with students <input type="checkbox"/> Relates easily and positively with students <input type="checkbox"/> Outgoing: Actively seeks opportunities to work with students			<input type="checkbox"/> Does not attempt to accommodate needs of unique learners <input type="checkbox"/> Makes negative comments about students' ability to learn <input type="checkbox"/> Usually accepts responsibility for all students' learning <input type="checkbox"/> Consistently responds to the learning needs of all students
13) Response to Feedback			14) Ability to Reflect and Improve Performance
<input type="checkbox"/> Defensive: Unreceptive to feedback <input type="checkbox"/> Receptive – but does not implement suggestions <input type="checkbox"/> Receptive – and adjusts performance accordingly <input type="checkbox"/> Solicits suggestions and feedback from others			<input type="checkbox"/> Reluctant to analyze performance <input type="checkbox"/> Makes some effort to review skills <input type="checkbox"/> Actively seeks ways to assess abilities <input type="checkbox"/> Consistently deepens knowledge of classroom practice and student learning
15) Professional Characteristics			
Seldom	Usually	Always	For each characteristic, check the frequency indicator that most accurately reflects the student teacher's/intern's behavior.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A. Commitment – demonstrates genuine concern for students and is dedicated to the teaching profession.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	B. Creativity – seeks opportunities to develop imaginative instructional lessons.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	C. Flexibility – responds to unforeseen circumstances in appropriate manner and modifies actions or plans when necessary.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	D. Integrity – maintains high ethical and professional standards.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	E. Organization – is efficient, successfully manages multiple tasks simultaneously.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	F. Perseverance – strives to complete tasks and improve teaching skills.
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	G. Positive Disposition – possesses pleasant interpersonal skills; is patient, resilient, optimistic and approachable.

Enz, B.J., Freeman, D.J., & Cook, S.J. (1990). The professional attributes scale. In B.J. Enz, S.J. Cook, & B.J. Webber (eds.), *The student teaching experience: A professional approach*. Dubuque, IA: Kendall-Hunt Publishers.

Additionally candidates are asked to respond to the following two items on a six point scale with one being the least and six being the greatest:

Knowledge of School Improvement Planning:

1 2 3 4 5 6

Knowledge of Louisiana School and District Accountability System (LSDAS):

1 2 3 4 5 6

1. Organizes available space, materials, and/or equipment to facilitate learning	1	2	3	4	5
2. Promotes a positive learning climate	1	2	3	4	5
3. Manages routines and transitions in a timely manner	1	2	3	4	5
4. Manages and/or adjusts allotted time for activities planned	1	2	3	4	5
5. Establishes expectations for learner behavior	1	2	3	4	5
6. Uses monitoring techniques to facilitate learning	1	2	3	4	5

Comments:

INSTRUCTION: The teacher delivers instruction effectively, presents appropriate content, and provides opportunities for student involvement in the learning process.

1. Initiates lesson effectively	1	2	3	4	5
2. Uses technique(s) which develop(s) lesson objective(s)	1	2	3	4	5
3. Uses a variety of teaching materials to achieve lesson objective(s)	1	2	3	4	5
4. Sequences lesson to promote learning	1	2	3	4	5
5. Adjusts lesson when appropriate	1	2	3	4	5
6. Integrates technology into instruction	1	2	3	4	5
7. Presents content at a developmentally appropriate level	1	2	3	4	5
8. Presents accurate subject matter	1	2	3	4	5
9. Relates examples, unexpected situations, or current events to the content	1	2	3	4	5
10. Integrates content across the curriculum	1	2	3	4	5
11. Accommodates individual differences	1	2	3	4	5
12. Demonstrates ability to communicate effectively with students	1	2	3	4	5
13. Exhibits enthusiasm toward the subject content	1	2	3	4	5
14. Stimulates and encourages higher order thinking at the appropriate developmental levels	1	2	3	4	5
15. Uses effective questioning techniques	1	2	3	4	5
16. Utilizes appropriate motivational techniques	1	2	3	4	5
17. Encourages student participation	1	2	3	4	5
18. Utilizes an effective lesson closure	1	2	3	4	5
19. Uses wait time	1	2	3	4	5

Comments:

ASSESSMENT: The teacher assesses student progress.

1. Develops well constructed assessment instruments/procedures/performances	1	2	3	4	5
2. Uses appropriate and effective assessment technique(s)	1	2	3	4	5
3. Utilizes a variety of formal and informal assessment techniques to monitor student learning	1	2	3	4	5

4. Consistently monitors ongoing performance of students	1	2	3	4	5
5. Provides timely feedback to students regarding their progress	1	2	3	4	5
6. Produces evidence of student academic growth under his/her instruction	1	2	3	4	5
7. Interprets and utilizes standardized/non-standardized test results	1	2	3	4	5

Comments:

<i>OTHER: The student teacher/intern</i>	2004-2005	2005-2006	2006-2007
1. Participates in grade level and subject area curriculum planning and evaluation			
2. Establishes cooperative relationships with the supervising teacher, paraprofessionals, parents, students, and other school personnel			
3. Provides clear and timely information to parents/caregivers and colleagues regarding classroom expectations, student progress, and ways they can assist learning			
4. Has read the School Improvement Plan for the school and discussed it with the supervising/mentor teacher			
5. Has planned lessons to address the School Improvement Plan			
6. Exhibits sensitivity to diverse community and cultural norms			
7. Shows awareness of the purposes of professional organizations			
8. Observes and/or participates in team evaluations (IEP's, etc.)			

Attachment C for Assessment 4

Planning Questions 1—8

Candidate 1	4	4	3	4	4	4	3	5
Candidate 2	4	4	3	4	4	4	4	5

Management Questions 1—6

Candidate 1	4	4	3	4	3	4
Candidate 2	4	4	4	3	4	4

Instruction Questions 1—20

Candidate 1	4	3	3	4	3	4	4	4	3	3	3	4	3	3	4	3	3	4	3	5
Candidate 2	4	4	4	4	4	4	4	4	3	4	4	4	3	4	4	4	3	4	3	5

Assessment Questions 1—7

Candidate 1	3	4	3	3	4	3	3
Candidate 2	4	4	4	4	4	4	3

Other Questions 1—8

Candidate 1	3	3	3	3	3	4	3	3
Candidate 2	1	4	4	4	3	4	4	1

Professional Attributes 1—14, 15(A—G), Potential as a Teacher

Candidate 1	3	3	3	3	3	4	3	3	4	3	4	4	4	3	3	3	3	3	3	3	3	3
Candidate 2	3	3	3	4	3	4	4	3	4	3	4	4	4	4	3	3	3	3	3	3	3	3

Assessment 5: Effects on Student Learning

1. Description of the Impact of Instruction Assessment:

The Louisiana Components of Effective Teaching (LCET) Assessment Plan: Impact on Student Learning is an evaluation of the teaching candidate’s ability to form assessments and monitor student performance. The evaluation is completed

by the student, supervising teacher, and the University supervisor and is based on assignments, a semester of student teaching, and a reflection.

2. Alignment of NCTM Standards and Indicators with Impact of Instruction assessment:

This assessment aligns with NCTM indicators 7.5, 8.3, 16.3

3. Data Findings:

	Q#1	Q#2	Q#3	Q#4
Candidate 1	4	4	4	4
Candidate 2	4	4	4	4

Q#1: Develops well constructed assessment instruments / procedures / performances. Possible scores range from 1 to 4, increasing in quality.

Q#2: Uses appropriate and effective assessment technique(s). Possible scores range from 1 to 4, increasing in quality.

Q#3: Produces evidence of student academic growth under his/her instruction. Possible scores range from 1 to 4, increasing in quality.

Q#4: Interprets and utilizes standardized/non-standardized test results. Possible scores range from 1 to 4, increasing in quality.

Comment on candidate 1: "An excellent pre and post test with an additional great performance objective. Great job!"

Comment on candidate 2: "Assessment plan was thorough. J***** used data to impact instruction."

4. Data Interpretation

The Assessment Plan: Impact on Student Learning reflects the Louisiana Components of Effective Teaching and is completed jointly by the student, the supervising teachers, and the University supervisor. The evaluation is based upon assignments, a reflection, and most importantly a semester of student teaching. Therefore this assessment directly measures the abilities of a teaching candidate

to develop and use appropriate assessments, to monitor student performance, and to measure student growth. For questions 1-4, all scores were maximal--a rating of 4. This provides evidence that teaching candidates are using certain skills proficiently with consistency.

5. Attachments for Assessment 5

Attachment A for Assessment 5

ASSESSMENT PLAN

- 1. Provide a table** (see sample below) outlining the pre-, post- and at least 1 *formative assessment* to be administered to each child. These assessments should measure the progress of students in your class toward your learning objective(s) and your learning goal(s). List assessments in the order in which they will be administered.

Analyzing the Results:
Used to show the learning gain made by each student from pre- to post- assessment

The Table should include:

- A) Type of assessments (e.g., pre, formative, or post).
- B) The learning objectives; these are specific to the learning activities.
- C) Format of assessments (e.g., essay, multiple choice, listing, short answer,

Type of Assessments	Learning Objectives	Format of Assessment
1. Pre Assessment		
2. Formative Assessment		
3. Post Assessment		

performance, matching, T/F, etc.).

2. Provide a narrative description which:

- Explains how the assessments specifically addresses each of the goals/objectives and why the format of each of the assessments is appropriate for the learning objectives and for the students you have assessed,
- Explains why you have chosen each of these assessments to attain your stated learning objectives,
- Provides assessment instructions that are understood by all students,
- Explains the minimal level of acceptable student performance (i.e., the point at which the student successfully meets the learning objective) in measurable terms,
- Explains special adaptations for special needs students (e.g. cognitive, language, developmental, and content).

It is encouraged that you use the same post-assessments as pre-assessments after you have finished the educational sequence.

3. Submit a clean copy of your assessment(s) and scoring criteria (e.g., keys, rubrics, etc.) as an attachment.

Students	Pre Assessment	Post Assessment	Gain + or -	Objectives				Comments
				Yes	No	Yes	No	
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
15.								

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Reflecting on the Impact of Instruction

1. How many students accomplished all of the objectives you established for this body of instruction? What % of students did not meet all objectives? What factors contributed to their success/failure?
2. Did those students who were unsuccessful in meeting all objectives demonstrate substantial gains in knowledge and skills as defined in the objectives? Were there students who demonstrated very little gain or negative gain (regression) from pre-assessment to post-assessment?
3. Describe the circumstances/conditions that contributed to the poor achievement of students who did not meet the objectives or make substantial gains.
4. Since the conclusion of the Work Sample, what have you done to help students who did not accomplish/master the objectives to improve their learning in these areas?
5. What impact will the information gained from your reflection about your students' performance have on future lessons? Describe the adjustments you will make in your instruction.

Attachment B for Assessment 5

**Louisiana Components of Effective Teaching (LCET) Assessment Plan:
Impact on Student Learning** (Revision: August 2006)

Candidate's Name _____ W#

Course Number _____ Instructor _____ Date

School Name/Code _____ Grade Level

Content _____ -

Directions: Please evaluate the candidate in each of the areas below.

The scale is:
 1 – Has not developed or used this skill
 2 – Is beginning to incorporate this skill
 3 – Uses this skill appropriately
 4 – Uses this skill competently with frequency

1. Develops well constructed assessment instruments/procedures/performances	1	2	3	4
2. Uses appropriate and effective assessment technique(s)	1	2	3	4
3. Produces evidence of student academic growth under his/her instruction	1	2	3	4
4. Interprets and utilizes standardized/non-standardized test results	1	2	3	4

Comments:

Attachment C for Assessment 5

	Q#1	Q#2	Q#3	Q#4
Candidate 1	4	4	4	4
Candidate 2	4	4	4	4

Assessment 6: Additional Assessment Addressing NCTM Standard 8

1. Description of the Additional Assessment:

A short addendum to The Louisiana Components of Effective Teaching (LCET) Assessment Plan: Summative Evaluation Report of Student Teaching was created to specifically assess candidate's abilities as measured by certain indicators in NCTM Standard 8. Specifically, candidates' abilities are measured by indicators 8.5, 8.6, 8.8, and 8.9. The evaluation is completed by the student, supervising teacher, and the University supervisor at the end of the semester of student teaching (Portal 4). Candidates are rated 1, 2, 3, or 4 on each question/indicator: 1—Has not developed or used this skill; 2—Is beginning to incorporate this skill; 3—Uses this skill appropriately and competently; 4—Uses this skill consistently with a high degree of competence and confidence.

2. Alignment of NCTM Standards and Indicators with additional assessment:

This assessment aligns with NCTM indicators 8.5, 8.6, 8.8, 8.9

3. Data Findings:

	8.5	8.6	8.8	8.9
Candidate 1	3	4	4	4
Candidate 2	4	3	4	4

8.5: Participates in professional mathematics organizations and uses their print and on-line resources.

8.6: Demonstrates knowledge of research results in the teaching and learning of mathematics.

8.8: Demonstrates the ability to lead classes in mathematical problem solving and in developing in-depth conceptual understanding, and to help students develop and test generalizations.

8.9: Develop lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas.

Comment on candidate 1: None

Comment on candidate 2: "Student teacher is familiar with NCTM and uses them effectively."

4. Data Interpretation

The addendum to the Louisiana Components of Effective Teaching: summative Evaluation Report of Student Teaching is completed jointly by the student, the supervising teacher, and the University supervisor. The evaluation is based upon a semester of student teaching and therefore directly assesses whether certain abilities (as described by NCTM indicators 8.5, 8.6, 8.8, and 8.9), some of which were developed and measured in Math 460 (see Assessment #3) actually come to life in the dynamic setting of the classroom. Most ratings were maximal (4), two ratings were one level below (3), indicating that both teaching candidates used all skills described in indicators 8.5, 8.6, 8.8, and 8.9 at least appropriately and competently, often consistently with a high degree of competence and confidence.

5. Attachments for Assessment 6

Attachment A/Attachment B for Assessment 6

MATHEMATICS ADDENDUM

Check All That Apply Below

- Undergraduate Student
 Alternate Certification Student
 MAT Student
 Student Teacher
 Intern

NCTM Addendum

Please evaluate the student teacher in each of the areas listed below. This evaluation should be completed jointly by the supervising teacher and the student teacher. Please use the comments section to explain your ratings and/or add additional information. Documentation must be provided for any rating of 1.

- The scale is:***
- 1 – Has not developed or used this skill***
 - 2 – Is beginning to incorporate this skill***
 - 3 – Uses this skill appropriately and competently***
 - 4 – Uses this skill consistently with a high degree of competence and confidence***

<i>The student teacher/intern demonstrates ability to effectively teach mathematics.</i>					
8.5	Participates in professional mathematics organizations and uses their print and on-line resources.	1	2	3	4
8.6	Demonstrates knowledge of research results in the teaching and learning of mathematics.	1	2	3	4
8.8	Demonstrates the ability to lead classes in mathematical problem solving and in developing in-depth conceptual understanding, and to help students develop and test generalizations.	1	2	3	4
8.9	Develop lessons that use technology's potential for building understanding of mathematical concepts and developing important mathematical ideas.	1	2	3	4

Comments:

Attachment C for Assessment 6

	8.5	8.6	8.8	8.9
Candidate 1	3	4	4	4
Candidate 2	4	3	4	4

Assessment 7: Additional Assessment Addressing NCTM Standards 7, 8

1. Description of the Additional Assessment:

A series of class assignments make up 25% of the final grade in Math 460. One such class assignment is a diversity project—a short paper addressing the Equity Principle. The paper is assessed by the faculty instructor assigned to Math 460. All candidates must earn a C or better in Math 460 before progression to student teaching (Portal 4).

2. Alignment of NCTM Standards and Indicators with additional assessment:

This assessment aligns with NCTM indicators 7.1, 8.1.

3. Data Findings:

Candidate 1	23
Candidate 2	NA

The data was obtained from the instructor of Math 460.

4. Data Interpretation:

To successfully complete this assessment, teaching candidates must provide specific tips for meeting the diversity challenges of today's classrooms and explain how traditional mathematics lesson plans can be adapted to meet the individual needs of diverse learners. These items speak to indicators 7.1 and 8.1. Candidate 1 completed the Mathematics Education program in December 2006 and was successful with this assessment. Candidate 1 enrolled in Math 460 in the fall of 2005. Candidate 2 enrolled in Math 460 in the fall of 2004, before this assessment was in place. However, Assessment #4 also aligns with indicators 7.1 and 8.1.

5. Attachments for Assessment 7

Attachment A for Assessment 7

Excerpt from Math 460: Remaining Due Dates

Class Meeting	Assignment Due
December 5	CA #2 Diversity project due—A short paper addressing the Equity principle. Provide information on the following <ul style="list-style-type: none">• Specific tips for meeting the diversity challenges of today’s classrooms• How can traditional mathematics lesson plans be adapted to meet the individual needs of diverse learners

Attachment B for Assessment 7

- Did this paper contain specific tips for meeting the diversity challenges of today’s classrooms?
- Did this paper contain information on how traditional mathematical lesson plans can be adapted to meet the individual needs of diverse learners?

Scoring out of 25 points

Attachment C for Assessment 7
Candidate Data

Candidate 1 23
Candidate 2 NA

SECTION V—USE OF ASSESSMENT RESULTS TO IMPROVE CANDIDATE AND PROGRAM PERFORMANCE

1. Content Knowledge

Data from Assessment #1 (PRAXIS II scores), Assessment #2 (required grades), has led to a discussion among the professorial faculty in the mathematics department concerning improvement of content knowledge. The PRAXIS II scores reported in this report are consistent with past data—mostly in the first and second quartiles. Similarly, the grades from required mathematics courses reported in Assessment #2 are similar to the grades from candidates in years past—as many C grades as A grades, for example.

These concerns, as well as concerns raised by parallel assessments for mathematics majors, have led to several discussions among faculty members within mathematics department.

There is a standing Assessment Committee that has discussed these issues, including assessments not included in this report such as the Major Field Test in Mathematics developed by ETS, exit surveys given to graduates in mathematics and mathematics education, and success rates from graduates who went on to pursue graduate degrees. As a result of these discussions, the Assessment Committee has been conducting a study by routinely collecting samples a student proof writing from upper level courses such as topology, real analysis, and abstract algebra. The findings and recommendations from the Assessment Committee have not been presented yet.

A second subgroup of mathematics professors have developed a plan for a mentoring system for teaching candidates one year prior to PRAXIS II to help teaching candidates gain perspective on the many content courses they have taken, and to understand mathematics as a coherent whole. The mentoring system would include practice for the PRAXIS II. This plan will be presented to the mathematics department as a whole and could be implemented in Fall 2007. Another aspect of this mentoring program would include mentoring faculty to observe candidates engaged in student teaching. Finally, this subgroup of three professors has also developed a plan to embed seminars by Southeastern mathematics faculty specializing in algebra, geometry, and applied mathematics into Math 365 and Math 375. The purpose of these seminars is to help form the connection between the upper level abstract algebra, linear algebra, college geometry, and calculus courses and the content being taught at the 7-12 levels. The ultimate goal of this three pronged plan is to improve candidates' content knowledge. This goal will be measured by a follow up analysis of the following questions:

1. Does the program boast a 100% passing rate upon the first attempt of PRAXIS II?
2. Do a majority of candidates score in the second and third quartiles?

The assessments listed in this report speak to all NCTM standard indicators except 15.4, 10.6, 12.5, 13.4, 9.10, and 14.7 (Section II). Most obvious is the lack of assessments addressing indicators dealing with the historical development of mathematical content areas. The Mathematics Department offers a History of Mathematics course (Math 311), but can no longer require this course of its majors without increasing the number of hours required for graduation. As a result, faculty in the Mathematics Department offer content courses imbued with historical topics. In addition, several faculty members who regularly teach required courses for teaching candidates have published articles and given talks related to the history of mathematics.

2. Professional and Pedagogical Knowledge, Skill, and Dispositions

3. Student Learning

The mathematics department is currently focused on improving content knowledge. The data from the assessments in this report show that candidate pedagogical knowledge and impact on student learning are consistently rated as high.