

Mathematics for Teacher Licensure Assessment Plan

Student Learning Outcomes (SLOs) for the Programs

Please list all of the student learning outcomes for your program as articulated in the assessment plan.

1. Demonstrate appropriate knowledge of core mathematical content.
2. Demonstrate appropriate knowledge of mathematical processes.
3. Demonstrate the ability to plan for mathematical learning.
4. Demonstrate the ability to teach meaningful mathematics.
5. Demonstrate the ability to meaningfully impact the learning of students at the secondary level.

Note: A short description for each NCTM Element is provided after the measures/instruments table.

Overview of Measures/Instruments

<p>SLO(s)</p> <p><i>Note: Measures might be used for more than 1 SLO</i></p>	<p>ULG*</p>	<p>Measures/Instruments</p> <p><i>Please include a clear description of the instrument including when and where it is administered</i></p>	<p>How is the information Used?</p> <p><i>(include target score(s), results, and report if target(s) were met/not met/partially met for each instrument)</i></p>
<p>Demonstrate appropriate knowledge of core mathematical content.</p>	<p>C, Q</p>	<p>Course Grades: Grades from all required mathematics courses completed at Eastern are used as one measure of core content knowledge. Coursework is completed throughout the degree program.</p> <p>State Licensure Content Test: The state licensure content test provides an external measure across several content categories of student knowledge of core mathematical content. The state content test is usually completed prior to student teaching, but as a COVID accommodation it can be completed after student teaching but must be passed prior to licensure.</p>	<p>Course Grades: A grade of ‘C’ or better is needed in all coursework. As a COVID accommodation the university allowed students to record a grade of credit/no credit in place of a standard grade over the past academic year. Additionally, the state has allowed grades of ‘D’ in coursework in the previous year. With these accommodations in mind, 100% of candidates have met the target.</p> <p>State Licensure Content Test: A passing score for the test is a minimum total score of 240 out of a possible 300. The total score is a weighted average based on the number of questions in each content subarea. Each subarea score is based on the total number of questions answered correctly. These scores are also based on a 300-point system. However, only the total test score determines whether a candidate passes the test. All but one student passed the test on the first attempt.</p> <p>NCTM elements addressed by these assessments: 1a, 1b, 1c, 1d, 1e</p>

<p>SLO(s)</p> <p><i>Note: Measures might be used for more than 1 SLO</i></p>	<p>ULG*</p>	<p>Measures/Instruments</p> <p><i>Please include a clear description of the instrument including when and where it is administered</i></p>	<p>How is the information Used?</p> <p><i>(include target score(s), results, and report if target(s) were met/not met/partially met for each instrument)</i></p>
<p>Demonstrate appropriate knowledge of mathematical processes</p>	<p>C</p>	<p>Course Grades: All courses in the program at Eastern address to some varying degrees the mathematical process- problem solving, reasoning and communication, mathematical modeling, are used in this assessment. Coursework is completed throughout the degree program.</p> <p>Math Teaching Portfolio: The portfolio is a way for program candidates to reflect on the coursework they have taken and to include work from education courses that allow students to reflect on pedagogical and other educational issues. The portfolio includes a resume, lesson/unit plan from a course other than secondary math methods, membership in a professional mathematics teaching organization, and samples from coursework taken in the program. For each artifact students need to write a narrative to justify that the piece they have selected meets the category and represents the appropriate standard. The portfolio is usually submitted the semester prior to student teaching.</p>	<p>Course Grades: A grade of ‘C’ or better is needed in all coursework. As a COVID accommodation the university allowed students to record a grade of credit/no credit in place of a standard grade over the past academic year. Additionally, the state has allowed grades of ‘D’ in coursework in the previous year. With these accommodations in mind, 100% of candidates have met the target.</p> <p>Math Teaching Portfolio: All candidates score at the “meets criteria” or higher for each mathematical process.</p> <p>NCTM elements addressed by these assessments: 2a, 2b, 2c</p>
<p>Demonstrate the ability to plan for mathematical learning</p>	<p>C, W, S</p>	<p>Peer Teaching Experience in MAT 3400 – Teaching Secondary Mathematics: Students are required to create a detailed lesson plan that they teach to the class and then reflect upon the experience. Part of the lesson planning process includes the completion of the Thinking Through a Lesson Protocol. This protocol ties directly into the lesson planning process by being divided into pieces that are directly related to the lesson plan and implementation. The protocol contains questions student must produce written answers to and then must share during a meeting with the instructor. This planning tool has its own rubric. The actual lesson plan written is assessed using a different rubric and the actual implementation of the lesson has its own rubric.</p> <p>Student Teaching Assessment: During the student teaching experience, a certified mathematics teacher serves as one of the cooperating teacher, mentor, and evaluator for the candidate. A supervisor (or supervisors) assigned by the College of Education from the Department of Student Teaching also evaluates the student teacher. The Student Teacher Evaluation Form is completed by the supervisor in consultation with the cooperating teacher at mid-term and again at the end of the student teaching experience. The data presented here is the end of experience evaluation data. The Student Teacher Evaluation Form is designed to measure the student teacher’s knowledge, skills and dispositions.</p>	<p>Peer Teaching Experience in MAT 3400 – Teaching Secondary Mathematics (n = 3): All students earn an ‘advanced’ or higher rating on the Thinking Through a Lesson Protocol (three rating rubric- exemplary, advanced, average) and most student earn ‘advanced’ or higher rating on the peer teaching rubric. Two students earned a rating lower than ‘advanced’ in some categories on the peer teaching rubric (four rating rubric- exemplary, advanced, average, insufficient).</p> <p>Student Teaching Assessment (n=8): The majority of students earn an ‘occasionally exceeds’ rating. All candidates earn a ‘meets’ standard or higher rating.</p> <p>NCTM elements addressed by these assessments: 3a, 3b, 4a, 4b, 4e, 4g, 6a</p>

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		<p>The Illinois Professional Teaching Standards (IPTS) serve as the overall and sub indicator categories that students are evaluated in during student teaching.</p>	
<p>Demonstrate the ability to teach meaningful mathematics</p>	<p>C, W, S</p>	<p>Cooperating Teacher Survey: All program candidates must provide to their cooperating teacher(s) a copy of a survey created by the Department of Mathematics and Computer Science that serves as an evaluative instrument specifically to address various NCTM elements. This survey allows the department gather granular level data on how the candidate met or did not meet different NCTM elements. The version of the survey used for this year is a transitional version from the 2012 NCTM Standards to the 2020 NCTM Standards. As such, some statements on the survey use the language of the 2012 standards but clearly articulate to certain aspects of the 2020 standards. A newer version of this survey using all updated language and measuring additional elements will be implemented beginning in the 2020-2021 academic year.</p> <p>Student Teaching Assessment: During the student teaching experience, a certified mathematics teacher serves as one of the cooperating teacher, mentor, and evaluator for the candidate. A supervisor (or supervisors) assigned by the College of Education from the Department of Student Teaching also evaluates the student teacher. The Student Teacher Evaluation Form is completed by the supervisor in consultation with the cooperating teacher at mid-term and again at the end of the student teaching experience. The data presented here is the end of experience evaluation data. The Student Teacher Evaluation Form is designed to measure the student teacher’s knowledge, skills and dispositions. The Illinois Professional Teaching Standards (IPTS) serve as the overall and sub indicator categories that students are evaluated in during student teaching.</p> <p>edTPA: The Illinois State Board fo Education (ISBE) requires student teaching candidates to complete the edTPA during student teaching as an external measure of student teaching. The edTPA is meant to serve as a capstone assessment and complements other assessments of teacher readiness required by ISBE and the candidate’s individual program of study. The edTPA is designed to measure teacher candidate effectiveness in the classroom by focusing on student learning and</p>	<p>Cooperating Teacher Survey (n = 11): The data show that cooperating teachers believe candidates are mostly well prepared to engage student teaching and successfully apply program objectives. The NCTM elements are mostly successfully engaged over the term of the experience, with some room for improvement to move candidate to and exceeds rating.</p> <p>Student Teaching Assessment (n = 8): 100% of candidates earn a ‘meets’ standard or higher across all categories measured.</p> <p>edTPA: No data for past academic year. Prior to this, most candidates required two attempts in order to pass edTPA.</p> <p>NCTM elements addressed by these assessments: 3a, 3b, 3c, 4b, 4c, 4d, 4f, 5c, 6a</p>

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		<p>includes a review of a teacher candidate's authentic teaching materials, including short video clips of instruction, lesson plans, student work samples, analysis of student learning and reflective commentaries. This assessment is submitted via an electronic online platform and is scored by carefully selected evaluators, who include teacher education faculty, clinical supervisors, K-12 teachers, administrators and National Board Certified Teachers. Over the past three semesters, the state has not required candidates to complete the edTPA.</p>	
<p>Demonstrate the ability to meaningfully impact the learning of students at the secondary level.</p>	<p>C, W, Q</p>	<p>Impact on Secondary Math Student Learning Assessment: The assessment to measure candidate impact on student mathematics learning requires that each student identify a learning segment within a unit of study for her/his class during student teaching and then provide details regarding planning, implementation, and assessment measures for that unit. Candidates have flexibility as to how they want to measure learning, but any measure must show gains in knowledge beyond memorization. The learning segment is also supported via video segments or direct observation by the secondary mathematics education coordinator in the department. As part of the submission, students submit a narrative describing the central focus of the learning segment and how they have planned this segment taking into account the needs of their students (both math and non-math specific). Students also must justify that they are implementing high cognitive demand tasks in the unit and are attempting to promote reasoning and sense making. Finally, students are required to use math specific tools and discuss how they used representations to further learning. Regarding the measures of assessment, candidates are asked to provide details on how they designed their assessment plan, collected data and then ultimately analyzed that data to determine the outcomes of the learning segment. Details regarding types of assessment and reflections are also required. A rubric is used to assess each aspect of the narrative and provided evidence.</p>	<p>(n= 8)</p> <p>The rubric contains three rating categories (proficient, emerging, under developed). The majority (87.5%) of students score at the emerging or higher rating across all but one measured category. However, at least one student scored at the under developed rating for each element assessed.</p> <p>NCTM elements addressed by these assessments: 3a, 3b, 3c, 4a, 4b, 4c, 4d, 4g, 5a, 5b, 5c</p>

**Please reference any University Learning Goal(s) (ULG) that this SLO, if any, may address or assess. C=Critical Thinking, W=Writing & Critical Reading; S=Speaking and Listening; Q=Quantitative reasoning; R=Responsible Citizenship; NA=Not Applicable*

NCTM 2020 Standards

1a) Essential Concepts in Number. Candidates demonstrate and apply understandings of major mathematics concepts, procedures, knowledge, and applications of number including flexibly applying procedures, using real and rational numbers in contexts, developing solution strategies, and evaluating the correctness of conclusions. Major mathematical concepts in Number include number theory; ratio, rate, and proportion; and structure, relationships, operations, and representations.

1b) Essential Concepts in Algebra and Functions. Candidates demonstrate and apply understandings of major mathematics concepts, procedures, knowledge, and applications of algebra and functions including how mathematics can be used systematically to represent patterns and relationships including proportional reasoning, to analyze change, and to model everyday events and problems of life and society. Essential Concepts in Algebra and Functions include algebra that connects mathematical structure to symbolic, graphical, and tabular descriptions; connecting algebra to functions; and developing families of functions as a fundamental concept of mathematics. Additional Concepts should include algebra from a more theoretical approach, including relationships between structures (e.g. groups, rings, and fields) as well as formal structures for number systems and numerical and symbolic calculations.

1c) Essential Concepts in Calculus. Candidates demonstrate and apply understandings of major mathematics concepts, procedures, knowledge, and applications of calculus, including the mathematical study of the calculation of instantaneous rates of change and the summation of infinitely many small factors to determine some whole. Essential Concepts in Calculus include limits, continuity, the Fundamental Theorem of Calculus, and the meaning and techniques of differentiation and integration.

1d) Essential Concepts in Statistics and Probability. Candidates demonstrate and apply understandings of statistical thinking and the major concepts, procedures, knowledge, and applications of statistics and probability including how statistical problem solving and decision making depend on understanding, explaining, and quantifying the variability in a set of data to make decisions. They understand the role of randomization and chance in determining the probability of events. Essential Concepts in Statistics and Probability include quantitative literacy, visualizing and summarizing data, statistical inference, probability, and applied problems.

1e) Essential Concepts in Geometry, Trigonometry, and Measurement. Candidates demonstrate and apply understandings of major mathematics concepts, procedures, knowledge, and applications of geometry, including using visual representations for numerical functions and relations, data and statistics, and networks, to provide a lens for solving problems in the physical world. Essential Concepts in Geometry, Trigonometry, and Measurement include transformations, geometric arguments, reasoning and proof, applied problems, and non-Euclidean geometries.

2a) Problem Solving. Candidates demonstrate a range of mathematical problem-solving strategies to make sense of and solve nonroutine problems (both contextual and noncontextual) across mathematical domains.

2b) Reasoning and Communicating. Candidates organize their mathematical reasoning and use the language of mathematics to express their mathematical reasoning precisely, both orally and in writing, to multiple audiences.

2c) Mathematical Modeling and Use of Mathematical Models. Candidates understand the difference between the mathematical modeling process and models in mathematics. Candidates engage in the mathematical modeling process and demonstrate their ability to model mathematics.

3a) Student Diversity. Candidates identify and use students' individual and group differences when planning rigorous and engaging mathematics instruction that supports students' meaningful participation and learning.

3b) Students' Mathematical Strengths. Candidates identify and use students' mathematical strengths to plan rigorous and engaging mathematics instruction that supports students' meaningful participation and learning.

3c) Positive Mathematical Identities. Candidates understand that teachers' interactions impact individual students by influencing and reinforcing students' mathematical identities, positive or negative, and plan experiences and instruction to develop and foster positive mathematical identities.

4a) Establish Rigorous Mathematics Learning Goals. Candidates establish rigorous mathematics learning goals for students based on mathematics standards and practices.

4b) Engage Students in High Cognitive Demand Learning. Candidates select or develop and implement high cognitive demand tasks to engage students in mathematical learning experiences that promote reasoning and sense making.

4c) Incorporate Mathematics-Specific Tools. Candidates select mathematics-specific tools, including technology, to support students' learning, understanding, and application of mathematics and to integrate tools into instruction.

4d) Use Mathematical Representations. Candidates select and use mathematical representations to engage students in examining understandings of mathematics concepts and the connections to other representations.

4e) Elicit and Use Student Responses. Candidates use multiple student responses, potential challenges, and misconceptions, and they highlight students' thinking as a central aspect of mathematics teaching and learning.

4f) Develop Conceptual Understanding and Procedural Fluency. Candidates use conceptual understanding to build procedural fluency for students through instruction that includes explicit connections between concepts and procedures.

4g) Facilitate Discourse. Candidates pose purposeful questions to facilitate discourse among students that ensures that each student learns rigorous mathematics and builds a shared understanding of mathematical ideas.

5a) Assessing for Learning. Candidates select, modify, or create both informal and formal assessments to elicit information on students' progress toward rigorous mathematics learning goals.

5b) Analyze Assessment Data. Candidates collect information on students' progress and use data from informal and formal assessments to analyze progress of individual students, the class as a whole, and subgroups of students disaggregated by demographic categories toward rigorous mathematics learning goals.

5c) Modify Instruction. Candidates use the evidence of student learning of individual students, the class as a whole, and subgroups of students disaggregated by demographic categories to analyze the effectiveness of their instruction with respect to these groups. Candidates propose adjustments to instruction to improve student learning for each and every student based on the analysis.

6a) Promote Equitable Learning Environments. Candidates seek to create more equitable learning environments by identifying beliefs about teaching and learning mathematics, and associated classroom practices that produce equitable or inequitable mathematical learning for students.

Improvements and Changes Based on Assessment

[INTENTIONALLY LEFT BLANK – FOR USE IN FUTURE YEARS]

1. Provide a short summary (1-2 paragraphs or bullets) of any curricular actions (revisions, additions, and so on) that were approved over the past four years as a result of reflecting on the student learning outcomes data. Are there any additional future changes, revisions, or interventions proposed or still pending?
2. Please provide a brief description or bulleted list of any improvements observed/measured in student learning over the past four years. Be sure to mention any intervention made that has not yet resulted in student improvement (if applicable).
3. Using the form below, please document annual faculty and committee engagement with the assessment process (such as the review of outcomes data, revisions/updates to assessment plan, and reaffirmation of SLOs).

History of Annual Review		
Date of Annual Review	Individuals/Groups who Reviewed Plan	Results of the Review (i.e., reference proposed changes from #1 above, revised SLOs, etc..)

Dean Review & Feedback

Dean or designee

Date

Academic Affairs – Review & Feedback

Date



Council for the
Accreditation of
Educator Preparation

ACCREDITATION ACTION REPORT

College of Education
Eastern Illinois University
Charleston, Illinois

Accreditation Council August 2021

Accreditation Application Date: *

This is the official record of the Educator Preparation Provider's accreditation status.

The Educator Preparation Provider should retain this document for at least two accreditation cycles.

* This EPP was accredited previously by NCATE or TEAC and the initial application date is not available. CAEP was established July 1, 2013.

ACCREDITATION DECISION

Accreditation with stipulations is granted at the advanced-level. Accreditation status is effective between Fall 2021 and Spring 2025. The provider must demonstrate that all stipulations have been corrected to continue accreditation. A site visit will occur in Fall 2024.

SUMMARY OF STANDARDS

CAEP STANDARDS	INITIAL-LICENSURE LEVEL	ADVANCED-LEVEL
STANDARD 1/A.1: STD 1	Not Applicable	Met
STANDARD 2/A.2: STD 2	Not Applicable	Met
STANDARD 3/A.3: STD 3	Not Applicable	Met
STANDARD 4/A.4: STD 4	Not Applicable	Met
STANDARD 5/A.5: STD 5	Not Applicable	Met

AREAS FOR IMPROVEMENT AND STIPULATIONS

Areas for Improvement: Identified areas for improvement are addressed in the provider's annual report.

Stipulations: Stipulations are addressed in the provider's annual report and must be corrected within two years to retain accreditation.

ADVANCED LEVEL AREAS FOR IMPROVEMENT AND STIPULATIONS

STANDARD A.1: STD 1

	Areas for Improvement	Rationale
1	The EPP provided limited evidence from direct performance measures that a majority of candidates enrolled in the advanced programs are able to demonstrate their	The EPP provided licensing exam data for programs but provided limited evidence that candidates are able to apply specialized content and discipline knowledge

understanding of critical concepts and principles for their specialized field of study. (Component A.1.2)

contained in approved state and/or national discipline-specific standards.

STANDARD A.5: STD 5

	Areas for Improvement	Rationale
1	There is limited evidence that the EPP assures that appropriate stakeholders, including alumni, employers, practitioners, school and community partners, and others defined by the provider, are involved in program evaluation, improvement, and identification of models of excellence. (Component A.5.5)	The EPP provided limited evidence of a formal mechanism used to solicit stakeholder input in a regular and systematic way for all advanced programs.

	Stipulations	Rationale
1	There is no evidence that the EPP has a quality assurance system to monitor completer achievements and provider operational effectiveness. (Component A.5.1)	The EPP has identified a set of siloed processes and measurements. There is no regular and systematic data collection, no sharing, reporting, or analysis of the limited data. There is no documentation of multiple measures, analysis of the data, and no indication that the data has been used to improve the programs.

AREA(S) FOR IMPROVEMENT OR WEAKNESS(ES) from previous legacy accreditor review (NCATE or TEAC)

Removed:

Area for Improvement or Weakness	Rationale
1) NCATE ST 2: Although programs are involved in the collection of data, the unit does not systematically analyze and evaluate those data for program and unit improvement.	1) The legacy AFI is addressed in CAEP Standard 5 and is reflected in new AFI or Stipulations under CAEP. Remove AFI
2) NCATE ST 6: Educational Leadership faculty loads for teaching on the main campus, in offsite cohorts, and online generally exceed nine hours for graduate teaching per semester or the equivalent.	2) The legacy AFI is no longer in CAEP standards. Remove AFI

INFORMATION ABOUT ACCREDITATION STATUSES

Accreditation for seven (7) years is granted if the EPP meets all CAEP Standards and components, even if areas for improvement (AFIs) are identified in the final report of the Accreditation Council.

- **Areas for Improvement (AFIs)** indicate areas which must be improved by the time of the next accreditation visit. Progress reports on remediation of AFIs are submitted as part of the Annual Report. AFIs not remediated by a subsequent site review may become stipulations.

Accreditation with stipulations is granted for 2 years if an EPP meets all standards but receives a stipulation on a component under any standard. Failure to submit a response to the stipulation within a two (2)-year time frame results in revocation. Failure to correct the condition leading to the stipulation within the specified two (2)-year period results in revocation or probation.

- **Stipulations** describe serious deficiencies in meeting CAEP Standards and/or components and

must be brought into compliance in order to continue accreditation. All stipulations and relevant evidence are reviewed by the Accreditation Council. Failure to correct the condition leading to the stipulation results in probation or revocation of accreditation.

Probationary Accreditation is granted for two (2) years when an EPP does not meet one (1) of the CAEP Standards. Failure to submit a response to the stipulation within a two (2)-year time frame results in revocation. Failure to correct the condition leading to the stipulation within the specified two (2)-year period results in revocation.

SCOPE OF ACCREDITATION

The scope of CAEP's work is the accreditation of educator preparation providers (EPPs) that offer bachelor's, master's, and/or doctoral degrees, post-baccalaureate or other programs leading to certification, licensure, or endorsement in the United States and/or internationally. (2018).

CAEP does not accredit specific degree programs, rather EPPs must include information, data, and other evidence on the following in their submission for CAEP's review:

All licensure areas that prepare candidates to work in preschool through grade 12 settings at the initial-licensure and advanced levels that lead to professional licensure, certification, or endorsement as defined by the state, country, or other governing authority under which the EPP operates and for which the state, country, or other governing authority has established program approval standards.

Depending on an EPP's submission, accreditation may be awarded at one or both of the following levels: Initial-Licensure level and/or Advanced-Level.

1. **Initial-Licensure Level Accreditation** is provided at the baccalaureate or post-baccalaureate levels leading to initial-licensure, certification, or endorsement that are designed to develop P-12 teachers.
2. **Advanced-Level Accreditation** is provided at the post-baccalaureate or graduate levels leading to licensure, certification, or endorsement. Advanced-Level Programs are designed to develop P-12 teachers who have already completed an initial-licensure program, currently licensed administrators, or other certified (or similar state language) school professionals for employment in P-12 schools/districts. CAEP's Advanced-Level accreditation does not include any advanced-level program not specific to the preparation of teachers or other school professionals for P-12 schools/districts; any advanced-level non-licensure programs, including those specific to content areas (e.g., M.A., M.S., Ph.D.); or Educational leadership programs not specific to the preparation of teachers or other school professionals for P-12 schools/districts.

Information on accreditation status, terms, and any conditions provided within this directory is specific to the accreditation level(s) described above. CAEP-accredited EPPs are required to distinguish accurately between programs that are accredited and those that are not.

NOTE: Neither CAEP staff, evaluation team members, nor other agents of CAEP are empowered to make or modify Accreditation Council decisions. These remain the sole responsibility of the Council itself.

End of Action Report

CLAS Deans' comments on B.A. in Mathematics Teacher Licensure report

Reviewer: Mike Cornebise

1. SLOs are clear and follow NCTM accreditation guidelines. The information gleaned will allow the department to demonstrate student attainment of accreditation standards while at the same time allowing the program to make any necessary curricular adjustments.
2. Note: while CAEP has not provided an accreditation letter to EIU, information in the following link demonstrates that Mathematics Teacher Licensure at EIU is a recognized program in Illinois:
<http://caepnet.org/providersearch?state=&program=NCTM&tab=program#progresults>

Overall, the plan appears ready for data collection. Let us know if we can assist with program assessment as you begin the process. The next report is due in fall of 2023.