George Mason University College of Education and Human Development Elementary Education

EDCI 552.002 – Mathematics Methods for the Elementary Classroom 3 Credits, Fall 2017 Fridays: 12:45 pm - 3:25 pm

Thompson Hall, Room 1020 – Fairfax Campus

Faculty

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Prerequisites/Corequisites

Admission to the elementary education licensure program.

University Catalog Course Description

Introduces methods for teaching all children topics in arithmetic, geometry, algebra, probability, and statistics in elementary grades. Focuses on using manipulatives and technologies to explore mathematics and solve problems.

Course Overview

In this course we will begin an inquiry into mathematics teaching and learning that will guide you in your first teaching job and give you the tools that will enable you to continue to inquire and learn as part of your work as a teacher. Class sessions will be interactive and will include a variety of handson experiences with concrete and virtual manipulatives appropriate for elementary school mathematics. We will explore the teaching of mathematics, investigating both *what* to teach and *how* to teach it. We will explore what it means to do mathematics and what it means to understand mathematics through individual, small group, and large group mathematical problem solving. We will investigate ways to represent understandings of mathematical concepts, communicate reasoning about mathematical ideas, and construct mathematical arguments. We will investigate and read about ways children might represent mathematical concepts, looking at ways to help children build connections and see relationships among mathematical ideas. We will explore characteristics of a classroom environment conducive to mathematical learning by reading and discussing the importance of mathematical tasks, mathematical tools, the roles of teachers and students, and the assessment of mathematical understanding.

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Course Delivery Method

This course will be delivered using a lecture format.

This course includes multiple instructional strategies and formats including face to face and asynchronous online meetings. Individual session formats vary and may include lecture, small group/large group discussion, hands-on, interactive work, student presentations, and cooperative learning. Practical applications of theory are explored in group activities.

Learner Outcomes or Objectives

This course is designed to enable students to do the following:

- A. Know what constitute the essential topics in mathematics of the modern early and intermediate grades school program.
- B. Identify and use selected manipulatives and technology such as linking cubes, attribute blocks, geoboards, base-10 blocks, fraction circles, tangrams, calculators, and computers to teach appropriate mathematics content topics in the early and middle grades.
- C. Identify and use various instructional strategies and techniques (cooperative and peer group learning, activity centers, laboratories and workshops, teacher-directed presentations, etc.) to teach mathematical content topics appropriate for the early and intermediate grades to all children, including those from non-mainstreamed populations.
- D. Identify and use alternative methods for assessing students' work in mathematics in the early and intermediate grades.
- E. Solve problems in the mathematical content areas of logic, number theory, geometry, algebra, probability, and statistics appropriate for adaptation to the early and intermediate grades.
- F. Know and explain the learning progression in relation to the standards-based mathematics curriculum, the key elements of the National Council of Teachers of Mathematics Principles and Standards for School Mathematics, and the key elements of the Virginia Standards of Learning for Mathematics.

Additionally, this course supports the CEHD Core Values of collaboration, ethical leadership, research-based practice, social justice, and innovation. Statements of these goals are at http://cehd.gmu.edu/values/.

Professional Standards (Interstate Teacher Assessment and Support Consortium (InTASC) & Association for Childhood Education International Elementary Education Standards (ACEI):)

Upon completion of this course, students will have met the following professional standards:

Course Student Outcomes (above)	INTASC Standard (2011)	ACEI
A Essential math	#4	1.0
B Planning and Teaching using manipulatives	#7	3.1
C Instructional Strategies	#8	1.0, 2.3, 3.1, 3.3, 3.4
D Assessing	#6	4.0
E Problem Solving	#5	2.3
F Learner Development and understanding of Learning Progression	#2/#1	1.0

INTASC Standard (2011)

Standard #4: Content Knowledge

The teacher understands the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make these aspects of the discipline accessible and meaningful for learners to assure mastery of the content.

Standard #7: Planning for Instruction

The teacher plans instruction that supports every student in meeting rigorous learning goals by drawing upon knowledge of content areas, curriculum, cross-disciplinary skills, and pedagogy, as well as knowledge of learners and the community context.

Standard #8: Instructional Strategies

The teacher understands and uses a variety of instructional strategies to encourage learners to develop deep understanding of content areas and their connections, and to build skills to apply knowledge in meaningful ways.

Standard #6: Assessment

The teacher understands and uses multiple methods of assessment to engage learners in their own growth, to monitor learner progress, and to guide the teacher's and learner's decision making.

Standard #5: Application of Content

The teacher understands how to connect concepts and use differing perspectives to engage learners in critical thinking, creativity, and collaborative problem solving related to authentic local and global issues.

Standard #1: Learner Development. The teacher understands how learners grow and develop, recognizing that patterns of learning and development vary individually within and across the cognitive, linguistic, social, emotional, and physical areas, and designs and implements developmentally appropriate and challenging learning experiences.

Standard #2: Learning Differences

The teacher uses understanding of individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.

Association for Childhood Education International Elementary Education Standards 2007

- **1.0 Development, Learning, and Motivation**--Candidates know, understand, and use the major concepts, principles, theories, and research related to development of children and young adolescents to construct learning opportunities that support individual students' development, acquisition of knowledge, and motivation.
- **2.3 Mathematics**—Candidates know, understand, and use the major concepts and procedures that define number and operations, algebra, geometry, measurement, and data analysis and probability. In doing so they consistently engage problem solving, reasoning and proof, communication, connections, and representation.
- **3.1 Integrating and applying knowledge for instruction**—Candidates plan and implement instruction based on knowledge of students, learning theory, connections across the curriculum, curricular goals, and community.
- **3.5** Communication to foster collaboration—Candidates use their knowledge and understanding of effective verbal, nonverbal, and media communication techniques to foster active inquiry, collaboration, and supportive interaction in the elementary classroom.
- **4.0 Assessment for instruction**—Candidates know, understand, and use formal and informal assessment strategies to plan, evaluate and strengthen instruction that will promote continuous intellectual, social, emotional, and physical development of each elementary student.

Course & PBA	INTASC	ACEI
552 Math	#4 Content Knowledge	1.0 Development
Student Assessment Interview	#1 & #2 Learner Development & Differences	2.3 Math
	#6 Assessment	3.1 Planning Instruction
	TO ASSESSMENT	3.5 Communication
		4.0 Assessment

Required Texts

Van De Walle, J., Karp, K. S., & Bay-Williams, J. M. (2015). *Elementary and Middle School Mathematics: Teaching Developmentally*. (9th edition) New York: Allyn and Bacon

Course Performance Evaluation

Students are expected to submit all assignments on time in the manner outlined by the instructor (e.g., Blackboard, Tk20, hard copy).

Assignments and Examinations

Participation & Professional Dispositions (10%)

Addresses Learner Outcomes: A, B, C, D, E, F

Rich, meaningful, problems will be assigned for each class session. Students are expected to complete these problems during class and incorporate their thinking about strategies used to solve the problems in class discussions. Work on problem sets will be shared in class and on occasion may be collected and evaluated. Students are expected to analyze and reflect on solution strategies, provide differentiated approaches to center activities, and actively participate in class discussions by applying field experiences and class readings. Professional dispositions are to be displayed at all times while interacting with the instructor and other students. Cell phones are not to be used during class. Laptops are to be used for instructional purposes only.

Selecting & Sequencing Assignment (10%)

Addresses Learner Outcomes: A, C, D, E, F

Determining how to share student work in class discussions is essential. This assignment will allow you to demonstrate your knowledge in determining which student work highlights the mathematical objective of a lesson. Students will be provided with a short passage centered on a teacher and the mathematical objective for that day, in addition to work samples. Students are expected to identify 2-3 work samples and explain the selection and sequencing of how they would lead a class discussion. A practice assignment will be completed on Week 2.

Student Assessment Interview: Course Performance Based Assessment (30%) *Addresses Learner Outcomes: A, B, C, D, F*

In order to plan effective instruction, you will need to know how to assess children's knowledge of mathematical concepts. One way to assess children's thinking is a diagnostic assessment. This assignment has two parts: (1) Design a plan for the assessment, assessing a specific mathematics topic using concrete, pictorial and abstract representations, (2) Conduct the assessment with a child and write a report describing the outcome of the assessment. Based upon feedback from the instructor on your plan, you may make modifications to the final plan and report. The PBA will be turned in via Tk20 on Blackboard, under Assessments.

Problem-based Lesson Plans & Written Summaries (30%)

Addresses Learner Outcomes: A, B, C, D, E, F

You are required to plan, teach, and complete a formal summary for each mathematics lesson. Each lesson will place an emphasis on five practices that promote productive discussions: Anticipating, Monitoring, Selecting, Sequencing, and Connecting. Each lesson should be written in the Modified GMU Elementary

Lesson Plan Format and follow the guidelines set forth by the grading rubric posted on Blackboard. Documents that should be included are: the lesson plan, reflection, anticipated student responses and student work samples.

- Group Problem-Based Lesson Plan (15%): The first lesson will be taught by a small group and presented to your classmates. Each group is expected to: 1) design a Power Point slide and e-mail it to your instructor the Wednesday before class; 2) anticipate possible student responses by solving the problem using all three representations (concrete, pictorial, abstract); and 3) bring 10 copies of the anticipated student responses to class on the day of the presentation. The group will complete one written reflection on this experience. See rubric/Blackboard for more detail.
- Individual Problem-Based Lesson Plan (15%): After teaching the Group Problem-Based lesson to their peers (in class), each individual will modify and teach this same problem to elementary students in a whole class setting. Each individual will complete a written reflection on this experience. See rubric/Blackboard for more detail.

Mathematics Curriculum and Assessment Analysis: Illuminations/VDOE Lesson (20%)

Addresses Learner Outcomes: C, D, E

The Mathematics Curriculum and Assessment Analysis will consist of teaching a lesson and using Edthena as a tool for reflection. Students will pick a lesson from the NCTM online resource Illuminations or the VDOE website that they will implement in a whole class setting of elementary students. Details for this assignment are on Blackboard. **This lesson should be video taped.** Students will analyze their videos using the Mathematical Quality of Instruction (MQI) framework. The MQI instrument examines the relationship between the teacher, students and mathematics content using five elements: richness of the mathematics; errors and imprecision; working with students and mathematics; student participation in meaning-making and reasoning; and connections between classroom work and mathematics. Students will need to register for a free MQI account:

http://isites.harvard.edu/icb/icb.do?keyword=mqi_training.

• Other Requirements

- O **Attendance:** It is your responsibility to attend all class sessions. You are held accountable for all information from each class session whether you are present or not. Reasons for any absence must be reported to the instructor in writing.
- o **Tardiness:** It is your responsibility to be on time for each class session. Reasons for any absence must be reported to the instructor in writing.

Note: Faculty reserve the right to add, alter, or omit any assignment as necessary during the course of the semester. You will always receive advanced notice of any modifications.

• Course Performance Evaluation Weighting

The assignments across the semester are intended to further your understandings of what it means to teach, learn, and assess mathematics in light of current reforms in mathematics education. All assignments are to be turned in to your instructor on time. **Late work will not be accepted for full credit.** If the student makes prior arrangements with the instructor, assignments turned in late will receive a 10% deduction from the grade per late day or any fraction thereof (including weekends and holidays).

Participation and Professional Dispositions (10%) Selecting and Sequencing Assignment (10%) Individual Student Assessment (30%) Problem-Based Lesson Plan Smmaries (30%) Mathematics Content & Pedagogy Assessments (20%)

Grading Policies

The mathematics education courses in GSE's Elementary Education Program integrate pedagogy and mathematics content appropriate for the elementary school grades. For students to earn a grade of A in the course, they must demonstrate excellence in *both* the pedagogical knowledge and the content knowledge of the mathematics appropriate at their level of teaching. Thus, the grading in the course is structured to help evaluate fairly student excellence in both areas. Problem sets and assessment work focuses primarily on ascertaining student excellence in handling mathematics content appropriate for the elementary grades, and represents 50% of students' grades. Pedagogical knowledge is ascertained primarily from readings, assignments and participation in the course, and represents 50% of students' grades. Therefore students who demonstrate excellence in both pedagogical knowledge and content knowledge receive grades of A.

At George Mason University course work is measured in terms of quantity and quality. A credit normally represents one hour per week of lecture or recitation or not fewer than two hours per week of laboratory work throughout a semester. The number of credits is a measure of quantity. The grade is a measure of quality. The university-wide system for grading graduate courses is as follows:

Grade	GRADING	Grade Points	Interpretation
A	94-100	4.00	Represents mastery of the subject through effort beyond
A-	90-93	3.67	basic requirements.
B+	85-89	3.33	Reflects an understanding of and the ability to apply
В	80-84	3.00	theories and principles at a basic level
C*	70-79	2.00	Denotes an unacceptable level of understanding and
F*	<69	0.00	application of the basic elements of the course

Note: "C" is not satisfactory for a licensure course.

TK20/Performance-Based Assessment(s) Submission Requirement

Every student registered for any Elementary Education course with a required TK20 performance-based assessment (designated as such in the syllabus) must submit this/these assessment(s) (**EDCI 552: Student Assessment Interview**) to Tk20 through 'Assessments' in Blackboard. Failure to submit the assessment(s) to Tk20 (through Blackboard) will result in the course instructor reporting the course grade as Incomplete (IN). Unless this grade is changed upon completion of the required Tk20 submission, the IN will convert to an F nine weeks into the following semester.

Professional Dispositions

Students are expected to exhibit professional behaviors and dispositions at all times. (See Elementary Education Program Handbook).

Class Schedule

Date	Topic	Readings Due	Assignments Due
9/1 Week 1	How Do Children Learn Mathematics? 5 Practices NCTM Principles & Standards Overview of Overall Richness of Mathematics (MQI) Sign Up: Group Problem Based Lesson		
9/8 Week 2	Teaching Through Problem Solving Lesson Planning Selecting, Sequencing & Connecting	Van de Walle: Chapter 3, 4 Orchestrating Productive Discussions Article (Blackboard) MQI: Linking Representations p. 5 (Blackboard) Look For: A big idea to share	Blackboard Reflection: Math Autobiography PBA: Identify Child
9/15 Week 3 Asynchronous Session	Creating Assessments for Learning Developing Early Number Concepts and Number Sense	Van de Walle: Chapter 5, 8 MQI: Multiple Procedures/Solutions p. 8 (Blackboard) Look For: A question you have	Blackboard Assignment: Selecting & Sequencing Practice PBA: Identify SOL and bring related Curriculum Framework document. Brainstorm representations and manipulatives

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9/22 Week 4	Developing Basic Fact Fluency Developing Whole-Number and Place Value Concepts	Van de Walle: Chapter 10, 11 MQI: Explanations p. 6 (Blackboard) Look For: Something different from how you learned	PBA: Look at Van de Walle chapter to identify possible tasks
	Problem-Based Lesson Presentation: Group #1		
9/29	Developing Student Strategies for Addition Problem-Based Lesson	Van de Walle: Chapter 9, 12 MQI: Sense Making p. 7 (Blackboard) Look For: A new strategy	PBA: Look at outside resources to identify possible tasks
Week 5	Presentation: Group #2		Problem-Based Lesson Write-Up Due: Group #1
10/6	Developing Student Strategies for Subtraction	Van de Walle: Chapter 13 MQI: Patterns and Generalizations p. 10 (Blackboard)	PBA: Create a draft of your plan & add follow up questions
Week 6 Asynchronous Session		Look For: A strategy that does not mesh with your thinking	Problem-Based Lesson Write-Up Due: Group #2
10/13	Developing Student Strategies for Multiplication and Division	Van de Walle: Chapter 13 MQI: Patterns and Generalizations p. 10 (Blackboard)	PBA: Bring a hard copy of Interview Protocol to Class.
Week 7	Problem-Based Lesson Presentation: Group #3	Look For: A strategy that does not mesh with your thinking	
	Fraction Concepts Problem-Based Lesson Presentation: Group #4	Van de Walle: Chapter 15 MQI: Math Language p. 11 (Blackboard) Look For: Something you don't understand	PBA: Upload Modified Interview Protocol to Blackboard
10/20 Week 8			Problem-Based Lesson Write-Up Due: Group #3
	Fraction Operations Review Overall Richness of Mathematics (MQI)	Van de Walle: Chapter 16 Look For: Something you have seen at your school	PBA: Interview Student
10/27 Week 9	Problem-Based Lesson Presentation: Group #5		Problem-Based Lesson Write-Up Due: Group #4
	Proportional Reasoning	Van de Walle: Chapter 18	PBA: Transcribe key conversation
11/3 Week 10	Selecting and Sequencing Assignment Due	Look For: Something that intrigues you	Problem-Based Lesson Write-Up Due: Group #5
			Mathematics Curriculum and

			Assessment Analysis (Illuminations/VD OE Lesson) Due
11/10 Week 11	Decimals & Percent Probability	Van de Walle: Chapter 17, 22 Look For: Something you struggle with	
11/17 Week 12 Asynchronous Session	Algebraic Thinking & Data Analysis	Van de Walle: Chapter 14, 21 Look For: Something that surprises you	Individual Problem-Based Lesson Write-Up Due
11/24 Week 13		THANKSGIVING BREAK ©	
12/1 Week 14	Measurement Area/Perimeter and the Math Workshop	Van de Walle: Chapter 19 Look For: An activity to share	PBA: Bring DRAFT to Class
12/8 Week 15	Geometry Independent Planning Sharing Our Work: PBA Reflecting on Our Learning	Van de Walle: Chapter 20 Look For: The most important thing	PBA Due

Note: Faculty reserves the right to alter the schedule as necessary, with notification to students.

Core Values Commitment

The College of Education and Human Development is committed to collaboration, ethical leadership, innovation, research-based practice, and social justice. Students are expected to adhere to these principles: http://cehd.gmu.edu/values/.

GMU Policies and Resources for Students

Policies

- Students must adhere to the guidelines of the Mason Honor Code (see http://oai.gmu.edu/the-mason-honor-code/).
- Students must follow the university policy for Responsible Use of Computing (see http://universitypolicy.gmu.edu/policies/responsible-use-of-computing/).
- Students are responsible for the content of university communications sent to their Mason email account and are required to activate their account and check it regularly. All

communication from the university, college, school, and program will be sent to students **solely** through their Mason email account.

- Students with disabilities who seek accommodations in a course must be registered with George Mason University Disability Services. Approved accommodations will begin at the time the written letter from Disability Services is received by the instructor (see http://ods.gmu.edu/).
- Students must follow the university policy stating that all sound emitting devices shall be silenced during class unless otherwise authorized by the instructor.

Campus Resources

- Support for submission of assignments to Tk20 should be directed to tk20help@gmu.edu or https://cehd.gmu.edu/aero/tk20. Questions or concerns regarding use of Blackboard should be directed to http://coursessupport.gmu.edu/.
- The Writing Center provides a variety of resources and services (e.g., tutoring, workshops, writing guides, handbooks) intended to support students as they work to construct and share knowledge through writing (see http://writingcenter.gmu.edu/).
- The Counseling and Psychological Services (CAPS) staff consists of professional
 counseling and clinical psychologists, social workers, and counselors who offer a wide
 range of services (e.g., individual and group counseling, workshops and outreach programs)
 to enhance students' personal experience and academic performance (see
 http://caps.gmu.edu/).
- The Student Support & Advocacy Center staff helps students develop and maintain healthy lifestyles through confidential one-on-one support as well as through interactive programs and resources. Some of the topics they address are healthy relationships, stress management, nutrition, sexual assault, drug and alcohol use, and sexual health (see http://ssac.gmu.edu/). Students in need of these services may contact the office by phone at 703-993-3686. Concerned students, faculty and staff may also make a referral to express concern for the safety or well-being of a Mason student or the community by going to http://ssac.gmu.edu/make-a-referral/.

For additional information on the College of Education and Human Development, please visit our website https://cehd.gmu.edu/.



College of Education and Human Development Accreditation and Program Improvement

4400 University Dr MS 6C13, Fairfax, VA 22030

Phone: (703) 993-5290 Fax: (703) 993-5701

Memo:

To: all CEHD students seeking student teaching internships in spring 2018 and forward

From: Jeff Davis, Director of Educator Preparation, CEHD

Re: Internship application requirements

Date: May 1, 2017

<u>Students</u> – please note the following requirements for Spring 2018 internship applications. <u>No extensions</u> to the application deadlines will be given for missing/incorrect/failing test scores, missing endorsements, <u>or missing/incorrect CPR/AED/First Aid certifications</u>.

Student Clinical Practice: Internship Application Requirements

TESTING

Since 2015, internship applications must include **all** <u>official and passing</u> test scores must be submitted and in the Mason system (i.e. Banner/PatriotWeb) by the internship application deadline. <u>Allow a **minimum** of six weeks for official test scores to arrive at Mason</u>. Testing too close to the application deadline means scores will not arrive in time and the internship application <u>will not be accepted</u>.

For Spring 2018 internships, this means that the latest you could test in time for scores to be reported to Mason by September 15th is **August 1**st.

Required tests:

- Praxis Core Academic Skills for Educators Tests (or qualifying substitute)
- VCLA
- RVE (specific programs only...see link below)
- <u>ACTFL</u> (Foreign Language only...unofficial scores are acceptable for this test only)
- Praxis II (content knowledge exam in your specific endorsement area)

For details, please check http://cehd.gmu.edu/teacher/test/

ENDORSEMENTS

Please note that ALL endorsement coursework must be completed, with all transcripts submitted and approved by the CEHD Endorsement Office, prior to the internship application deadline. Since the internship application must be submitted in the semester prior to the actual internship, please make an

appointment to meet with the Endorsement Specialist and plan the completion of your Endorsements accordingly.

CPR/AED/First Aid – NEW hands-on training required for licensure!

Due to a recent change in Virginia law, effective July 1, 2017, all new license applications and license renewals must include verification that "hands-on" First Aid/CPR/AED training was completed. This means that applications for spring 2018 internships must also include verification of completing "hands-on" training. After June 30, 2017, the online training will no longer be accepted.

Emergency First Aid, CPR, and Use of AED Certification or Training requirement must be submitted and in the Mason system (i.e. Banner/PatriotWeb) by the application deadline. Students must submit one of the "acceptable evidence" documents listed at http://cehd.gmu.edu/teacher/emergency-first-aid to the CEHD Educator Preparation Office. In order to have the requirement reflected as met in the Mason system, documents can be scanned/e-mailed to internsh@gmu.edu or dropped-off in Thompson Hall, Suite 1700.

<u>DYSLEXIA AWARENESS TRAINING – NEW requirement for licensure!</u>

Effective July 1, 2017, every person seeking initial licensure or renewal of a license shall complete awareness training, provided by VDOE, on the indicators of dyslexia, as that term is defined by the board and regulations, and the evidence-based interventions and accommodations for dyslexia. The training module is located at

http://www.doe.virginia.gov/teaching/licensure/dyslexia-module/story.html.

Similar to the Child Abuse Prevention Module, students will need to save and print out the completion certificate at the end of the module.

BACKGROUND CHECKS/FINGERPRINTING

All local school systems require students to complete a criminal background check through their human resources office (<u>not</u> through George Mason University) **prior to beginning the internship**. Detailed instructions on the process will be sent to the student from either the school system or Mason.

When applying for their background check/fingerprinting, students are **strongly advised** to disclose any/all legal incidents that may appear on their records. School divisions can and will withhold internship placement if discrepancies are found between a student's disclosure and their official judicial record. Students must assume the risk that classes may be deferred and their program progress delayed or altered due to the individual severity of notations on such a check and review by individual agencies.

PLEASE NOTE:

Your G# must be clearly noted (visible and legible) on the face of any & all documents that you submit.

APPLICATION

The internship application can be downloaded at http://cehd.gmu.edu/teacher/internships-field-experience

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DEADLINES

Spring 2018 internship application deadline:

- * Traditional Internship: September 15, 2017
- * On-the Job Internship: November 1, 2015

If you have any questions about the above requirements, <u>don't wait</u> - please contact your advisor or the Clinical Practice Specialist at <u>internsh@gmu.edu</u> Please be sure to include your G# and program/content area information in your email.

This communication to you, including all requirements and deadlines, will be referenced upon receipt of any request for application deadline extension.

Assessment Rubric(s)

Teacher Candidate Instruction and Assessment Plan

Assessment Objective

• The candidate will use knowledge of individual learning differences and assessment to develop an instructional plan for a student with developmental, learning, physical or linguistic differences, including a plan for assessing the student's progress.

Rationale

Lesson planning is an essential skill for an educator. A lesson plan is a road map for instruction. When planning teachers and teacher candidates need to answer four main questions:

Who are my students? (Context/Student Needs)

What do my students need to know and be able to do? (Objectives)

How will I get all students to know and do the new tasks? (Leaching and learning)

How will I know they know what was taught? (Assessments)

The first step in planning is identifying the learning objectives for the lesson-based upon student abilities, challenges, and prior knowledge. Before developing specific learning activities, determine how you will assess if students have met the lesson objectives. Once you know how you will assess student learning, you can develop activities that align instruction with the assessment. Additionally, a teacher must consider student prior knowledge, how to differentiate to meet student needs, and how to do so within the time allotted. Lesson plans include pacing, transitions, checking for understanding, and ideas for re-teaching or extending learning based upon student needs.

The planning process is the same whether you are planning a lesson for a class or for an individual. For this assessment you will develop an instructional plan for a student with developmental, learning, physical or linguistic differences, including a plan for assessing the student's progress.

Assessment Task Directions

Candidates will develop an individualized plan for a child with developmental, learning, physical, or linguistic differences within the context of the general environment and curriculum that includes the following sections:

Section 1. Description of the individual student that includes cognitive, linguistic, social, emotional, and/or physical developmental skill levels and abilities, interests and educational progress and statement of educational need.

Section 2. Identification of and rationale for three learning objectives that support meaningful learning outcomes for the student.

Section 3. Description of and rationale for at least three evidence-based instructional strategies that address the identified learning objectives and reflect the student's cognitive, linguistic, social, emotional, and/or physical developmental skill levels and abilities, interests and educational needs.

Section 4. Description of and rationale for instructional adaptations and accommodations needed, including the use of augmentative and alternative communication systems and assistive technologies or other appropriate technologies.

Section 5. Statement of **plan for the assessment and documentation** of the student's progress toward the identified objectives.

Section 6: Reflection: The candidate uses ongoing analysis and reflection to improve planning and practice.

Criteria	Does Not Meet Standard	Approaches Standard	Meets Standard	Exceeds Standard
	1	2	3	4
Section 1				
Description of Indivi	dual Student			
The candidate regularly assesses individual and group performance in order to design and modify instruction to meet learners' needs in each area of development (cognitive, linguistic, social, emotional, and physical) and scaffolds the next level of development.	The candidate does not provide a description or the description of student does not include assessment data related to cognitive, linguistic, social, emotional, and/or physical developmental skill levels and abilities, interests, or educational progress.	The candidate provides description of student that includes appropriate assessment data related to some but not all of the following: cognitive, linguistic, social, emotional, and/or physical developmental skill levels and abilities, interests, or educational	The candidate provides description of student that includes appropriate assessment data on all of the following: cognitive, linguistic, social, emotional, and/or physical developmental skill levels and abilities, interests, and educational progress. The candidate describes impact of student	The candidate provides description of student that includes both appropriate and multiple forms of assessment data on all of the following: cognitive, linguistic, social, emotional, and/or physical developmental skill levels and abilities, interests, and educational learning need.
InTASC 1(a) ACEI 1.0 CAEP 1a		progress.	characteristics on learning.	describes and provides examples of impact of student characteristics on learning.
Statement of Educati				
The candidate effectively uses	The candidate does not address student	The candidate uses assessment data to	The candidate uses assessment data to	The candidate effectively uses
multiple and appropriate types of assessment data	educational needs or inappropriately uses assessment	of educational need that is marginally	create an appropriate statement of	assessment data from multiple sources to create a
to identify each student's learning	data to create a	aligned with assessment results.	educational need	thorough and appropriate

needs and to develop differentiated learning experiences.	statement of educational need.		that is aligned with assessment results.	statement of educational need that is aligned with assessment results.
InTASC 6(g) ACEI 4.0 CAEP 3a				
Section 2 Identification of Lear	ning Objectives			
The candidate effectively uses multiple representations and explanations that capture key ideas in the discipline, guide learners through learning progressions, and promote each learner's achievement of content standards InTASC 7(a) ACEI 2.3 CAEP 2b	The candidate identifies learning objectives that are either (a) incomplete because related outcomes are not identified or (b) the objectives are not directly related to student educational need.	The candidate identifies learning objectives without relevance to student educational need.	The candidate identifies learning objectives with related outcomes that are relevant to individual student needs.	The candidate identifies distinct learning objectives with related outcomes that are relevant to individual student needs. Effectively uses multiple representations and explanations that capture key ideas in the discipline, guide learners through learning progressions, and promote each learner's achievement of content standards.
Identification of Rati				
The candidate plans for instruction based on formative and summative assessment data, prior learner knowledge, and learner interest. InTASC 7(d) ACEI 1.0 CAEP 3a	The candidate does not provide rationales which are aligned to the specific learning objectives and/or the relationship of the learning objectives to student educational needs is missing or unclear.	The rationales provided are not be aligned to the specific learning objective and the relationship of the learning objectives to student educational needs is unclear.	The rationales provided are aligned with the learning objective and the relationship of learning objectives to student educational needs is clearly identified.	The rationales provided are aligned with the learning objective and the relationship of the learning objectives to student educational needs is clearly and effectively identified.

Section 3				
Description of Instru				
The candidate plans how to achieve each student's learning goals, choosing appropriate strategies and accommodations, resources, and materials to differentiate instruction for individuals and groups of learners.	The candidate does not identify instructional strategies or identifies instructional strategies that are not related to the learning objectives or student learning needs.	The candidate identifies instructional strategies that are marginally related to the learning objectives or student learning needs.	The candidate identifies evidence-based instructional strategies that are aligned to the learning objectives and student learning needs.	The candidate identifies evidence-based instructional strategies that are aligned to specific learning objectives and student learning needs. The candidate provides specific sources of evidence for the instructional strategy.
InTASC 7b ACEI 2.3 CAEP 2b				
Rationale for Instruc	tional Strategies			
The candidate understands that each learner's cognitive, linguistic, social, emotional, and physical development influences learning and knows how to make instructional decisions that build on learners' strengths and needs. InTASC 1(e) ACEI 3.1 CAEP 3	The candidate does not provide rationales which are aligned to the specific instructional strategies and/or the relationship of instructional strategies to the learning objectives and student educational needs is missing or unclear.	The rationales provided do not aligned to the specific instructional strategies and, the relationship of the instructional strategies to the learning objectives that meet student educational needs is unclear .	The rationales provided are aligned with instructional strategies and, the relationship of the instructional strategies to the learning objectives that meet student educational needs is clearly identified.	The rationales provided are aligned with the strategies and, the relationship of the instructional strategies to specific learning objectives that meet student educational needs is clearly and effectively identified.
Section 4 Description of Instru	ctional Adaptation			
The candidate accesses resources, supports, and specialized assistance and services to meet particular learning differences or needs.	The candidate does not identify either adaptations or accommodations to support student achievement of learning objectives.	The candidate identifies either adaptations or accommodations that minimally support student achievement of learning objectives.	The candidate identifies and describes appropriate adaptations or accommodations that clearly support student achievement of learning objectives.	The candidate identifies and thoroughly describes appropriate adaptations or accommodations that clearly support student achievement

InTASC 2(f) ACEI 3.1 CAEP 3a				of learning objectives.
Rationale for Instruc	tional Adaptation			
The candidate	The candidate does	The rationales	The rationales	The rationales
knows a range of	not provide	marginally	provide adequate	provide evidence -
evidence-based	rationales that are	provides evidence	evidence to support	based support for
instructional	aligned to the	to support the	the adaptations and	the specific
strategies,	adaptations and	adaptations and	accommodations	adaptations and
resources, and	accommodations	accommodations	and the relationship	accommodations
technological tools	and/or the	and the relationship	of the adaptations	and the relationship
and how to use them effectively to	relationship of the adaptations and	of the adaptations and	and accommodations to	of the adaptations and
plan instruction	accommodations to	accommodations to	student educational	accommodations to
that meets diverse	student educational	student educational	needs is clearly	student educational
learning needs.	needs is missing or	needs is unclear .	identified.	needs is clearly and
	unclear.			thoroughly
InTASC 7(k)				identified.
ACEI 2.3				
CAEP 3c				
Section 5 Assessment	and Documentation of	of Student Progress		
The candidate	The candidate does	The candidate	The candidate	The candidate
designs assessments	not describe an	4 14	l	
		describes an	describes an	describes an
that match learning	assessment plan	assessment plan	assessment plan that	assessment plan that
objectives with	assessment plan that that evaluates	assessment plan that evaluates all	assessment plan that evaluates all student	assessment plan that evaluates all student
objectives with assessment methods	assessment plan that that evaluates all student learning	assessment plan that evaluates all student learning	assessment plan that evaluates all student learning objectives	assessment plan that evaluates all student learning objectives,
objectives with assessment methods balances the use of	assessment plan that that evaluates all student learning objectives or	assessment plan that evaluates all student learning objectives but does	assessment plan that evaluates all student learning objectives and includes both	assessment plan that evaluates all student learning objectives, includes formative
objectives with assessment methods balances the use of formative and	assessment plan that that evaluates all student learning objectives or describes a plan that	assessment plan that evaluates all student learning objectives but does not include	assessment plan that evaluates all student learning objectives and includes both formative and	assessment plan that evaluates all student learning objectives, includes formative and summative
objectives with assessment methods balances the use of	assessment plan that that evaluates all student learning objectives or	assessment plan that evaluates all student learning objectives but does	assessment plan that evaluates all student learning objectives and includes both	assessment plan that evaluates all student learning objectives, includes formative
objectives with assessment methods balances the use of formative and summative	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly	assessment plan that evaluates all student learning objectives but does not include documentation of	assessment plan that evaluates all student learning objectives and includes both formative and summative	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify,	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable,	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify,	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning.	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable,	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable,	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning.	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable,	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable).	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a Section 6: (addition)	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable).	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment bias.	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of bias.	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each objective.
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a Section 6: (addition) The candidate uses	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable). Reflection There was no	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment bias. The candidate uses	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of bias.	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each objective. The candidate
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a Section 6: (addition) The candidate uses ongoing analysis	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable). Reflection There was no evidence that the	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment bias. The candidate uses marginal analysis	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of bias. The candidate uses ongoing analysis	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each objective. The candidate effectively uses
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a Section 6: (addition) The candidate uses ongoing analysis and reflection to	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable). Reflection There was no evidence that the candidate used	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment bias. The candidate uses marginal analysis and reflection	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of bias. The candidate uses ongoing analysis and reflection to	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each objective. The candidate effectively uses ongoing analysis
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a Section 6: (addition) The candidate uses ongoing analysis and reflection to improve planning	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable). Reflection There was no evidence that the	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment bias. The candidate uses marginal analysis and reflection strategies to	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of bias. The candidate uses ongoing analysis	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each objective. The candidate effectively uses ongoing analysis and deep reflection
objectives with assessment methods balances the use of formative and summative assessment as appropriate to support, verify, and document learning. InTASC 6b ACEI 3.1 CAEP 3a Section 6: (addition) The candidate uses ongoing analysis and reflection to	assessment plan that that evaluates all student learning objectives or describes a plan that does not directly measure all of the student learning objectives (e.g., is not observable, measurable). Reflection There was no evidence that the candidate used ongoing analysis	assessment plan that evaluates all student learning objectives but does not include documentation of both formative and summative measures that does not address possible assessment bias. The candidate uses marginal analysis and reflection	assessment plan that evaluates all student learning objectives and includes both formative and summative assessments that minimize sources of bias. The candidate uses ongoing analysis and reflection to improve planning	assessment plan that evaluates all student learning objectives, includes formative and summative assessments that minimize sources of bias and includes multiple data sources for each objective. The candidate effectively uses ongoing analysis

ACEI 5.1		
CAEP 5c		