



Course Syllabus

EDU 315 L1

EC-6 Math Instructional Methods

Fall 2025

Class Information

Day and Time: Thursdays at 4:45 pm – 7:15 pm

Room Number: E 202

Contact Information

Instructor Name: Dr. Vickie S. Brown

Instructor Email: vbrown@criswell.edu

Instructor Phone: 214.818.1341

Instructor Office Hours: Monday 11:00 to 1:00; Tuesday 9:30 to 10:30; Thursday 9:30 to 1:30

Course Description and Prerequisites

Emphasizes the teaching of mathematics in an EC-6th grade setting. A major goal of this course is to guide students to an understanding of concepts related to numbers and number systems. Students are given opportunities to practice and to demonstrate knowledge of patterns, relations, operations, and computational reasoning. Special emphasis is given to writing lesson plans that incorporate the mathematics Texas Essential Knowledge and Skills (TEKS) with a special emphasis on problem-solving processes. **(Nine clock hours of field experience are required for this course. Failure to complete the field hours and their assigned projects will result in an automatic "F" in the course.) (Prerequisite: EDU 301)**

Course Objectives

1. Be familiar with the NCTM *Principles and Standards for School Mathematics*, the Texas Essential Knowledge and Skills (TEKS), and apply them to mathematics planning and instruction.
2. Be familiar with the *Professional Standards for Teaching Mathematics* and how they influence teaching methods.
3. Discuss the current influences on and reform movements aimed at mathematics instruction in American schools.
4. Plan lessons that incorporate "Doing" mathematics in the elementary classroom.
5. Teach in a developmentally appropriate way which reflects a constructivist view of learning.
6. Use problem-solving as a principle instructional strategy while designing and selecting effective learning tasks.
7. Use a variety of assessment skills to evaluate student progress in Mathematics.

Required Textbooks

Van de Walle, J., *Elementary and Middle School Mathematics, Teaching Developmentally*: Texas Education, 11 th edition, Massachusetts: Pearson, 2022

Course Requirements and Assignments

Procrastination is the arrogant assumption that God owes you another chance to do tomorrow what He gave you a chance to do today. Rosie O'Neal

****No late work will be accepted in this course.****

1. Student Assessment: You will create, score, and interpret a math assessment to a selected child who is 5-12 years in age. The assessment is to be included in your Final Math Course Portfolio.

DUE: 9.11.25 Points: 10 points

2. Display Board: You will design a display board that teaches a math concept covered in your text. It should be appropriate for use in an EC-6th grade class. The design is to be interactive, in some fashion, for the students. It is to be creative, reflective of professionalism, and neat. **You will integrate your board into one of the teaching sessions of the field experience.**

DUE: 9.18.25 Points: 5 points

3. Game: You will create a math game that teaches a math concept covered in your text. It should be appropriate for use in an EC-6th grade class. **You will integrate the game into one of the teaching sessions.** It is to be creative, neat, and reflective of professionalism.

DUE: 9.25.25 Points: 5 points

4. Math Manipulative: You will create a math manipulative that teaches a math concept covered in Chapters 7 to 13 in your text. It should be appropriate for use in an EC-6th grade class. **You will integrate the manipulative into one of the teaching sessions.** It is to be creative, neat, and reflective of professionalism.

DUE: 10.09.25 Points: 5 points

5-9. Teaching Experiences: You will prepare and present (5) 50 to 60 minute math lessons, with an emphasis on problem-solving skills. The lessons are to be appropriate for EC-6th grade and emphasize concepts from your text. You are to include either a visual aide or manipulative in your lessons. A selection of high-quality children's literature and a writing activity are to be included as part of your lessons. A typed lesson plan with the **appropriate TEKS** is due at the time of your lesson. **These lessons will be presented in the classroom that you are assigned to when completing your 9 clock hours of field experience.** You are to complete a journal entry for each teaching session.

DUE: October 2, 9, 23, 30; November 6 Points: 5 points each / 25 points total

10. Technology: You will utilize technology in at least one of your teaching session lessons. This may be in the form of charting data, analyzing data, computations, practice programs, etc. **The children must be the ones using the technology.**

DUE: 11.13.25 Points: 5 points

11. Quizzes: You will be assessed on math concepts covered in your text.

DUE: September 4, 18; October 23; November 6, 20 Points: 5 points each / 25 points total

12. Math Course Portfolio: You will include in this portfolio your 5 Journal Entries from the teaching experiences, the Student Assessment, photos of students using the created teaching aides, and a two-page self-evaluation of yourself as a Math teacher. **You will discuss your learning experiences during the final night of class.**

DUE: 12.11.25 Points: 20 points

****Class attendance is essential to understanding the content in this course. Therefore, students who are absent more than 3 times during the semester will have a one letter-grade deduction in their final grade.**

Course Information

Texas Educator Standards:

Pedagogy and Professional Responsibilities EC–12 Standard I

The teacher designs instruction appropriate for all students that reflects an understanding of relevant content and is based on continuous and appropriate assessment.

Pedagogy and Professional Responsibilities EC–12 Standard II

The teacher creates a classroom environment of respect and rapport that fosters a positive climate for learning, equity and excellence.

Pedagogy and Professional Responsibilities EC–12 Standard III

The teacher promotes student learning by providing responsive instruction that makes use of effective communication techniques, instructional strategies that actively engage students in the learning process and timely, high-quality feedback.

Pedagogy and Professional Responsibilities EC–12 Standard IV

The teacher fulfills professional roles and responsibilities and adheres to legal and ethical requirements of the profession.

Technology Applications Standard I

All teachers use technology-related terms, concepts, data input strategies and ethical practices to make informed decisions about current technologies and their applications.

Technology Applications Standard II

All teachers identify task requirements, apply search strategies and use current technology to efficiently acquire, analyze and evaluate a variety of electronic information.

Technology Applications Standard III

All teachers use task-appropriate tools to synthesize knowledge, create and modify solutions and evaluate results in a way that supports the work of individuals and groups in problem-solving situations.

Technology Applications Standard IV

All teachers communicate information in different formats and for diverse audiences.

Technology Applications Standard V

All teachers know how to plan, organize, deliver and evaluate instruction for all students that incorporates the effective use of current technology for teaching and integrating the Technology Applications Texas Essential Knowledge and Skills (TEKS) into the curriculum.

Core Subjects EC-6 Standards:**Mathematics Standard I**

Number Concepts: The mathematics teacher understands and uses numbers, number systems and their structure, operations and algorithms, quantitative reasoning and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.

Mathematics Standard II

Patterns and Algebra: The mathematics teacher understands and uses patterns, relations, functions, algebraic reasoning, analysis and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.

Mathematics Standard III

Geometry and Measurement: The mathematics teacher understands and uses geometry, spatial reasoning, measurement concepts and principles and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.

Mathematics Standard IV

Probability and Statistics: The mathematics teacher understands and uses probability and statistics, their applications and technology appropriate to teach the statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) in order to prepare students to use mathematics.

Mathematics Standard V

Mathematical Processes: The mathematics teacher understands and uses mathematical processes to reason mathematically, to solve mathematical problems, to make mathematical connections within and outside of mathematics and to communicate mathematically.

Mathematics Standard VI

Mathematical Perspectives: The mathematics teacher understands the historical development of mathematical ideas, the interrelationship between society and mathematics, the structure of mathematics and the evolving nature of mathematics and mathematical knowledge.

Mathematics Standard VII

Mathematical Learning and Instruction: The mathematics teacher understands how children learn and develop mathematical skills, procedures and concepts; knows typical errors students make; and uses this knowledge to plan, organize and implement instruction; to meet curriculum goals; and to teach all students to understand and use mathematics.

Mathematics Standard VIII

Mathematical Assessment: The mathematics teacher understands assessment and uses a variety of formal and informal assessment techniques appropriate to the learner on an ongoing basis to monitor and guide instruction and to evaluate and report student progress.

Mathematics Standard IX

Professional Development: The mathematics teacher understands mathematics teaching as a profession, knows the value and rewards of being a reflective practitioner and realizes the importance of making a lifelong commitment to professional growth and development.

Video Recording

To ensure FERPA compliance when a course is live-streamed or recorded, students can opt out of video recordings by requesting seating in a designated area off camera. Students who sit outside of this area are giving implicit permission to be recorded.

Class Attendance:

Students should only enroll in courses they are able to attend regularly.

- **On-campus** students are expected to attend class **in person** according to the course syllabus.
- Students enrolled in the **online section** must pay any applicable online course fees.
- Online students are expected to attend class **synchronously** at the scheduled time via the designated video conferencing platform, Zoom, found in the left-hand global menu in Canvas.
- Online students must have their **cameras turned on with sound muted** during class, and actively participate in discussions and activities. In order to be properly identified, students must upload a picture ID to their Canvas Account Profile *prior to the first online meeting*. For instructions on how to upload a profile picture, [click here](#).

Missed Classes:

- Each instructor may decide how attendance impacts your grade and learning objectives. Details are provided within the course syllabus.
- Students are responsible for catching up on any material missed due to absence or tardiness.
 - Instructors are **not required** to allow make-up work for missed classes.

Attendance & Financial Aid:

- Students receiving **grants, loans, or scholarships** must meet participation requirements set by the college.
- It is the student's responsibility to:
 - Review relevant sections of the Academic Catalog.
 - Contact the **Financial Aid Office** for details on how attendance affects aid.
 - Understand the consequences of non-participation.

Census Period Attendance Requirement:

- Though Criswell College does not officially take attendance, it must verify that students **begin their courses** to meet federal aid regulations.
- **During the census period** (first two weeks of a 16-week semester or first week of shorter terms), students must participate in **academically related activities**, or they may be dropped from the course.

Examples of Qualifying Activities:

- Attending class in person or via live video with the instructor present
- Submitting an assignment, quiz, or exam
- Taking part in assigned tutorials, study groups, or discussion boards
- Having documented communication with the instructor about course content

Important Note:

Simply logging into Canvas or a Zoom session without participating (e.g., camera off, no interaction) **does not count** as attendance.

Canvas:

- Criswell College uses Canvas as its web-based Learning Management System (LMS).
- **For online courses** at Criswell College, instructors use Canvas to:
 - Organize course content on a module basis using organizational tools within Canvas
 - Control the timing of course requirements through module control or assignment due dates to ensure that students are engaged for the full length of the semester or term
 - Accept assignments from students only inside the Canvas course (emailed assignments are not acceptable)
 - Provide written feedback on assignments only within Canvas, preferably through Speedgrader
 - Use the Announcement or e-mail feature in Canvas to communicate with the students rather than by broadcasting to a class email listserv outside of canvas
 - Use Zoom in Canvas for all “live” (synchronous) class sessions

Important Note:

Students needing assistance with Canvas should contact the Canvas Help Support line at 844-358-6140. Tech support is available at this number, twenty-four hours a day.

Campus Closure

To ensure the health and safety of students and employees, college administrators may decide it is necessary on rare occasions to close the campus. Once this decision is announced, instructors will contact students to provide further details regarding the campus closure’s impact on those courses. Students are responsible to watch for communication from their instructors and respond appropriately. (Unless otherwise specified by the instructor in this syllabus, this communication will be sent to the student’s Criswell College e-mail account.)

In order to make progress toward the courses’ objectives, instructors have the freedom during most campus closures to require students to participate in activities as alternatives to meeting on campus. An instructor may, for example, hold class remotely (through Zoom) at the scheduled time, provide a recording of a class or presentation for students to watch independently, or assign other activities that students are to accomplish before returning to campus. Students are responsible for accomplishing these alternative activities as well as any course requirements listed in this syllabus during the period of the campus closure. If, during the period of the campus closure, personal circumstances prohibit a student from accomplishing these alternative activities or course requirements and assignment listed in the syllabus during the campus closure, the student is responsible for communicating with the instructor as soon as possible. Instructors will not penalize students who do not have the means to accomplish the alternative activities during the period of the campus’s closure and will work with students whose circumstances during the campus closure prohibited their timely completion of course requirements and assignments in the syllabus.

Grading Scale

A	93-100	4.0 grade points per semester hour
A-	90-92	3.7 grade points per semester hour
B+	87-89	3.3 grade points per semester hour
B	83-86	3.0 grade points per semester hour

B-	80-82	2.7 grade points per semester hour
C+	77-79	2.3 grade points per semester hour
C	73-76	2.0 grade points per semester hour
C-	70-72	1.7 grade points per semester hour
D+	67-69	1.3 grade points per semester hour
D	63-66	1.0 grade point per semester hour
D-	60-62	0.7 grade points per semester hour
F	0-59	0.0 grade points per semester hour

Incomplete Grades

Students requesting a grade of Incomplete (I) must understand that incomplete grades may be given only upon approval of the faculty member involved. An “I” may be assigned only when a student is currently passing a course and in situations involving extended illness, serious injury, death in the family, or employment or government reassignment, not student neglect.

Students are responsible for contacting their instructors prior to the end of the semester, plus filing the appropriate completed and approved academic request form with the Registrar’s Office. The “I” must be removed (by completing the remaining course requirements) no later than 60 calendar days after the close of the term or semester in which the grade was awarded, or the “I” will become an “F.”

Academic Honesty

Absolute truth is an essential belief and basis of behavior for those who believe in a God who cannot lie and forbids falsehood. Academic honesty is the application of the principle of truth in the classroom setting. Academic honesty includes the basic premise that all work submitted by students must be their own and any ideas derived or copied from elsewhere must be carefully documented.

Academic dishonesty includes, but is not limited to:

- cheating of any kind,
- submitting, without proper approval, work originally prepared by the student for another course,
- plagiarism, which is the submitting of work prepared by someone else as if it were his own, and
- failing to credit sources properly in written work.

Course Policy on the use of Artificial Intelligence (AI)

As technology continues to “evolve,” students may be tempted to rely more heavily on artificial intelligence to complete projects than is academically supportive of their learning and skills’ attainment. Therefore, in this course students are not to use artificial intelligence to do more than rudimentary tasks such as have been routinely supplied in programs such as Word. **Papers composed by ChatGPT and similar programs will be considered plagiarism.**

Examples of AI-related functions you **may not use** without permission:

- Text Generation – You may not use AI to generate text for use in an assignment.

- Outline Generation – You may not use AI to generate an outline for an assignment.

AI-related tools you **may use** without permission:

- Spellcheck and grammar – built into Word, Pages, and Google Docs
- AI re-writing tools – tools that take what you’ve written and help make it clearer, such as what Grammarly offers. However, you must cite Grammarly or other sources in your assignment/paper and submit both original draft of paper and the final paper.
- AI research and summarize – tools that help you find sources to cite, such as the new AI tools built into Logos Bible Software.)

Institutional Assessment

Material submitted by students in this course may be used for assessment of the college’s academic programs. Since programmatic and institutional assessment is done without reference to specific students, the results of these assessments have no effect on a student’s course grade or academic standing at the college. Before submitting a student’s work for this type of assessment, the course instructor redacts the work to remove anything that identifies the student.

Institutional Email Policy

All official college email communications to students enrolled in this course will be sent exclusively to students’ institutional email accounts. Students are expected to check their student email accounts regularly and to respond in an appropriate and timely manner to all communications from faculty and administrative departments.

Students are permitted to setup automatic forwarding of emails from their student email accounts to one or more personal email accounts. The student is responsible to setup and maintain email forwarding without assistance from college staff. If a student chooses to use this forwarding option, he/she will continue to be responsible for responding appropriately to all communications from faculty and administrative departments of the college. Criswell College bears no responsibility for the use of emails that have been forwarded from student email accounts to other email accounts.

Disabilities

Criswell College recognizes and supports the standards set forth in Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and similar state laws, which are designed to eliminate discrimination against qualified individuals with disabilities. Criswell College is committed to making reasonable accommodations for qualifying students, faculty, and employees with disabilities as required by applicable laws. For more information, please contact the Student Services Office.

Intellectual Property Rights

Unless otherwise specifically instructed in writing by the instructor, students must neither materially nor digitally reproduce materials from any course offered by Criswell College for or with the significant possibility of distribution.

Research and Writing Standards

The default writing style for written assignments in Criswell College Courses is the latest edition of *A Manual for Writers of Research Papers, Theses and Dissertations* by Kate Turabian. However, instructors are free to require alternative writing styles in their courses. These styles include but are not limited to the American Psychological Association (APA), Chicago Manual of Style, Modern Language Association (MLA), and Society of Biblical Literature (SBL) writing guides.

Resources and Supports

Canvas and SONIS: Criswell College uses Canvas as its web-based learning tool and SONIS for student data. Students needing assistance with Canvas should contact the Canvas Help Support line at (844) 358-6140. Tech support is available at this number, twenty-four hours a day. Students needing help with SONIS should contact the Campus Software Manager at studenttechsupport@criswell.edu.

Student Services: The Student Services Office exists to foster and encourage success in all areas of life—physical, intellectual, spiritual, social, and emotional. Students are encouraged to reach out for assistance by contacting the office at 214.818.1332 or studentservices@criswell.edu. The Student Services Office also works with local counseling centers to ensure that every student has access to helpful mental health resources. More information is located on the college website at [Criswell College Mental Health Resources](#), and students may contact the Director of Student Services if they have any questions.

Wallace Library: Students can access a wide range of academic resources and receive research assistance by contacting or visiting the Wallace Library, located on the second floor of the Education Building.

Login credentials for accessing the library's databases are emailed to students near the beginning of each semester.

For more information or assistance, email the Wallace Library at library@criswell.edu or visit www.criswell.edu/academics/wallace-library/.

Tutoring Center: Students are encouraged to consult with tutors to enhance their skills and build confidence. All tutors are recommended by faculty to ensure they are qualified to support the student body. To meet with a tutor, students can schedule an appointment through Calendly at <https://calendly.com/criswell-tutoringcenter>. The Tutoring Center is located in room E203 of the Education Building.

For questions, email tutoringcenter@criswell.edu.

Date	Topic	Reading Assignment	Assignments Due
8/21/25	Syllabus Explanation		
	Math Reforms	Ch. 1	
8/28/25	What It Means to Do Math	Ch. 2	
	Teaching Through Problem Solving	Ch. 3	
9/04/25	Planning	Ch. 4	
	Assessment	Ch. 5	Quiz #1
9/11/25	Teaching All Children Mathematics	Ch. 6	Student Assessment
9/18/25	Number Concepts & Number Sense	Ch. 7	Display Board
	Mastering the Basic Facts	Ch. 9	Quiz #2
9/25/25	Operations: Addition & Subtraction	Ch. 8	Game
	Operations: Multiplication & Division		
10/02/25	Place-Value Development	Ch. 10	Lesson Plan 1
	Computation: Addition & Subtraction	Ch. 11	
10/09/25	Computation: Mult. & Div.	Ch. 12	Lesson Plan 2
			Math Manipulative
10/16/25	Student Development Week		
10/23/25	Fraction Concepts	Ch. 14	Lesson Plan 3
	Computations With Fractions	Ch. 15	Quiz #3
10/30/25	Decimals and Percent Concepts	Ch. 16	Lesson Plan 4
	Proportional Reasoning Concepts	Ch. 17	
11/06/25	Measurement Concepts	Ch. 18	Lesson Plan 5
			Quiz #4
11/13/25	Geometric Concepts	Ch. 19	Technology Lesson

11/20/25	Data Analysis	Ch. 20	
	Probability	Ch. 21	Quiz #5
11/24 -27/25	Thanksgiving Holiday		
12/04/25	Algebraic Thinking & Functions	Ch. 13	
	Exponents, Integers, and Real Numbers	Ch. 22	
12/11/25	Final Notebook Presentation		5 Entry Journal
			Student Assessment
			2-page Self-Evaluation
			Teaching aides