



**MIDWESTERN STATE UNIVERSITY**  
**A Member of the Texas Tech University System**

Course Syllabus  
**Teaching Math Methods in Elementary School**  
West College of Education  
EDUC 4043 Section: 201  
Spring 2022, January 10 – May 6, Revised January 2022

**Contact Information**

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**Instructor Response Policy**

We will be working and communicating constantly throughout the semester. Email is great however you will also be a part of class GroupMe which will provide more flexibility in communication. I will try my best to answer all emails and texts within 24 hours, however you will definitely get a response within 48 hours (2 days). Any emails or texts received during weekends will not receive a response till the following Monday. No emails or texts will be answered over the weekend.

**Textbook & Instructional Materials**

1. Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M. (2010). *Elementary and middle school mathematics: Teaching developmentally*. Boston: Allyn & Bacon (10<sup>th</sup> edition)  
**WITH Access code**
2. Handouts and copied materials as required through the semester.

**Course Description**

These field-based courses focus on elementary and middle school mathematics, mathematics pedagogy with emphasis on instructional strategies and models, the use of technology in the learning/teaching process, effective practices, professionalism, curriculum, and lesson design. Different teaching strategies include appropriate use of creative approaches to the learning/teaching process, cooperative learning, direct instruction, inquiry, concept attainment, etc. An important component of this field-based block of classes is the course time spent in active participation in field (classroom) experiences

### **Course Objectives**

1. Learners are able to describe learning and thinking in elementary and middle mathematics.
2. Learners will be able to develop curriculum and use effective instructional planning skills.
3. Learners will be able to develop appropriate assessment tools to assess students learning.
4. Learners will be able to use assessment data to design appropriate learning activities.
5. Learners will be able to develop lesson plans that involve students in an active learning environment.
6. Learners will be able to develop and implement effective teaching strategies.
7. Learners will be able to develop lesson plans/units that incorporate national standards in mathematics and technology applications.
8. Learners will be able to develop lesson plans/units that incorporate state standards in mathematics and technology applications.
9. Learners will be able to develop and implement learning environments that utilize various teaching/learning strategies.
10. Learners will be able to develop learning activities that involve the infusion of technology.

See Appendix A for a complete list of standards, competencies, and other expectations.

### **Study Hours and Tutoring Assistance**

The TASP offers a schedule of selected subjects tutoring assistance. Please contact the TASP, (940)397-4684, or visit the ASC homepage for more information.

[Tutoring & Academics Supports Programs](#)

### **Student Handbook**

Refer to: [2021-2022 Student Handbook](#)

### **Academic Misconduct Policy & Procedures**

Academic Dishonesty: Cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individuals to whom credit is given). Additional guidelines on procedures in these matters may be found in the Office of Student Conduct.

[Office of Student Conduct](#)

## Grading/Assessment

Table 1: Points allocated to each assignment.

<b>Assignments</b>	<b>Grade Points</b>
Technology Assignments – 3	80 points
Quizzes (4)	200 points
Written Assignments – 4	170 points
Multicultural Teaching	50 points
Field Experience	50 points
Lesson Plan	100 points
Classroom Observation	100 points
Assessment Analysis Assignments – 2	100 points
Final Exam	50 points
Classroom Participation and Disposition	100 points
<b>TOTAL</b>	<b>1000 points</b>

Table 2: Total points for final grade.

<b>Grade</b>	<b>Percentage</b>	<b>Points</b>
A	90% - 100%	900-1000
B	80% - 89%	800-899
C	70% - 79%	700-799
D	60% - 69%	600-699
F	Below 59%	Below 600

### Quizzes

There are four quizzes with varying grade points in this course that align with the book chapters. Quizzes will consist of multiple choice and open-ended questions. Quiz details as well as a rubric for open-ended questions will be provided.

### Written Assignments

There are **four written assignments** in this course that build your understanding of thinking about how children assimilate mathematics and also prepare you to become aware of research-based practices in teaching mathematics. Details for assignments will be on D2L. Any questions can be asked via email or during class.

Expectations for written work:

Correct grammar, punctuation, and spelling are expected on all written assignments (although web discussions are not held to the high standard of a research project or other written assignment).

Written assignments should be:

- Done in Microsoft Word and turned in as an attachment in dropbox on D2L or
- Converted to a PDF and turned in as an attachment in dropbox on D2L.
- Discussions (if applicable) should be completed within the D2L discussion space and NOT uploaded as an attachment.

## Lesson Planning

Teacher candidates must demonstrate the ability to plan, assess, and implement instruction. This begins in the Foundational block where the teacher candidates create and write lessons for effective teaching. Teacher candidates are required to develop lesson plans. The specific format can be adapted, but should always include the objectives, TEKS, procedures, materials/resources, assessments, and required components of the lesson plan. Student engagement is a key element in a good lesson with student learning and success as the ultimate goal.

Candidates must form assessment strategies to determine the extent to which students master the learning objectives. Candidates also describe the instructional delivery method addressing the following step-by-step procedures:

1. Questions and concerns listed in the directions given to you by your instructor
2. Setting purposes ("Today we will be...I want you to...because you will...")
3. Method(s) for engaging students in the lesson
4. Any questions asked during the lesson should be in **bold**
5. Higher order thinking reflected in questions
6. Instructional Strategies: Modeling, Discussion, "Hands-on", Inquiry, etc.
7. Grouping: when and how
8. Instruction that addresses learners' needs (ELLs, Special Education, 504, Gifted, Struggling Learner)
9. Closure

After teaching the lesson, candidates are then required to reflect on and explain:

- the lesson delivery and appropriateness of instructional strategies,
- the impact for future planning using evidence from gathered data and
- collaboration opportunities with the mentor teacher.

The skills acquired during lesson planning provide the foundation and are also built upon for unit planning and other key assessments.

## Extra Credit

Extra Credit will not be offered in this class. Any change in this policy will be dependent upon opportunities and instructor preferences.

## Late Work

Late work will receive a 25% deduction per day per assignment (including Saturday and Sunday). This means if the assignment is for 100 points, you can make a maximum score of 75 after one day, 50 after two days, 25 after three days, and zero after 4 days if all your answers are correct. **There is NO late work on discussion boards or quizzes!** All this is non-negotiable!!! If there are any issues or you are confused about an assignment, contact me **BEFORE** the assignment is due (at least 24 to 48 hours before the assignment is due). Time shown on D2L, or email will be used.

***Please note:*** *Even though this is a face-to-face class, this class requires you to have access to a computer (with Internet access) to check for class news updates, materials, instructions, resources and upload your assignments in D2L. It is your responsibility to have (or have access to) a working computer in this class. Assignments are due by the due date, and personal*

***computer technical difficulties will not be considered reason for the instructor to allow students extra time for submission.***

### **Make Up Work/Tests**

There will be no make-up or resubmissions allowed on assignments, quizzes, discussion boards, or any other activity in class.

### **Important Dates**

Last day for term schedule changes: 1/13/22

Deadline to file for graduation: May graduation 2/14/22

Last Day to drop with a grade of "W:" 3/21/22

Refer to: [Drops, Withdrawals & Void](#)

### **Desire-to-Learn (D2L)**

Extensive use of the MSU D2L program and Pearson MyLab is a part of this course. Each student is expected to be familiar with D2L as it provides a primary source of communication regarding assignments, examination materials, and general course information. You can log into [D2L](#) through the MSU Homepage and use the access code for Pearson MyLab. (There's a note from the bookstore at the bottom of the syllabus.) *If you experience difficulties, please contact the technicians listed for the program or contact your instructor. **Do not wait till the last minute to submit the assignment. Delays or sending through email will be counted late!***

Computers are available on campus in various areas of the buildings as well as the Academic Success Center. ***Again, your computer being down is not an excuse for missing a deadline!!*** There are many places to access your class! If you have technical difficulties in the course, there is also a student helpdesk available to you. The college cannot work directly on student computers due to both liability and resource limitations however they are able to help you get connected to our online services. For help, log into [D2L](#).

### **Attendance**

**Absence Policy** - Professional teachers are dependable, reliable, and responsible. Therefore, candidates are expected to be on time and in attendance at **every** class, and to stay for the **entire** class. Tardiness, leaving early, and excessive absences (3) are considered evidence of lack of dependability, and are taken seriously. *Candidates will receive a grade of F on the third absence. If a candidate is taking 'blocked' courses that are taught at a Professional Development School, requiring field experience, the candidate will be dropped with an F from those classes as well.*

After an absence from the course, it is imperative that a student schedule an appointment with the course instructor to discuss attendance. Failure to schedule and attend a conference will result in the loss of classroom participation and disposition points and also in the overall grade being lowered by one letter. It is the **candidate's responsibility** to make up any missed work. It is also expected that you will complete all course field experience hours in a professional manner. Professional conduct is expected when observing or participating in school settings (e.g., dressing appropriately, arriving on time, remaining for the entire pre-arranged time, not canceling, and demonstrating respect in all interactions with young people, parents, teachers, and staff). If you must miss your field experience for any reason, you are expected to call the school

and the teacher you are working with **before** school begins for the day. You must also contact the course instructor by e-mail or phone to let me know you will not be present and arrange a time with me when we can discuss the most appropriate way to make up that absence. Excessive tardiness (determined by the professor) can be defined as an absence and subject to the absentee policy. Three instances of tardy arrival will be counted as one absence.

In the event that a class member is absent, for whatever reason, that individual assumes responsibility for contacting the instructor to account for missed work and to turn in work. **It is impossible to provide a summary of all that takes place during any given class via email.** If a student is going to be absent, they have the responsibility to contact the instructor to turn in assignments and obtain copies of any handouts from the missed class. Tentative assignment due dates are listed on the course schedule. While the actual due dates may vary due to the flow of the class, all assignment due dates will be finalized and announced in class well in advance of the specific date. Late work, unless arrangements are made by the student and approved **in advance** by the instructor, **will not be accepted for full credit.**

### **Instructor Drop**

As per the College policies, an instructor may drop a student any time during the semester for excessive absences, for consistently failing to meet class assignments, for an indifferent attitude, or for disruptive conduct. Instructor will give the student a verbal or written warning prior to dropping the student from the class. The instructor-drop takes precedence over the student-initiated course drop of a later date. The instructor will assign a grade of either WF or F through the first 8 weeks of this semester. After this period, the grade will be an F. The date the instructor drop form is received in the Office of the Registrar is the official drop date.

### **Change of Schedule**

A student dropping a course (but not withdrawing from the University) within the first 12 class days of a regular semester or the first four class days of a summer semester is eligible for a 100% refund of applicable tuition and fees. Dates are published in the [Schedule of Classes](#) each semester.

### **Refund and Repayment Policy**

A student who withdraws or is administratively withdrawn from Midwestern State University (MSU) may be eligible to receive a refund for all or a portion of the tuition, fees and room/board charges that were paid to MSU for the semester. HOWEVER, if the student received financial aid (federal/state/institutional grants, loans and/or scholarships), all or a portion of the refund may be returned to the financial aid programs. As described below, two formulas (federal and state) exist in determining the amount of the refund. (Examples of each refund calculation will be made available upon request).

### **Class Participation**

Students should participate in all activities of this course. It is important that students should meet all the deadlines as posted. In the case of any emergency situation (like death or illness in family, etc.) it is important that the student should report the same to the professor in a timely manner. It is your course, and the primary intention should be to reach the goals and acquire proficiency in

the topics discussed in the course. Generally, students are graded on intellectual effort and performance rather than attendance, absences may lower the student's grade where class attendance and class participation are deemed essential.

Excessive tardiness or absence (as determined by the professor), disruptive attitude, or failure to consistently class requirements might result in instructor-drop, if required. Being repeatedly late for class will also result in a grade reduction regardless of other marks. Tardiness will result in loss of classroom disposition points and three instances of tardy arrival will be counted as one absence.

Each student brings a unique perspective and life experience to the learning environment and is expected to participate actively and thoughtfully by making pertinent contributions. All students are expected to read assignments and be prepared to discuss them. Note that you are provided with focus questions that are designed to structure your reading of the assigned texts. Moreover, the course instructor may assign additional readings. ***Participating in class discussions and following expectations is a part of your grade.*** Please come to class with questions or issues from the reading that you found central or worthy of further exploration. Students may also be asked to do activities and exercises related to the assigned readings or to lead discussions on a topic or reading. You will have many opportunities to participate in class and on D2L. These opportunities are a very important part of this course.

### **Online Computer Requirements**

As mentioned above, it is your responsibility to have (or have access to) a working computer in this class. *Assignments are due by the due date, and personal computer technical difficulties will not be considered a reason for the instructor to allow students extra time to submit assignments, tests, or discussion postings.*

Computers are available on campus in various areas of the buildings as well as the Academic Success Center. Your computer being down is not an excuse for missing a deadline!!

### **Instructor Classroom Policies**

Students are expected to assist in maintaining a classroom environment which is conducive to learning. In order to assure that all students have the opportunity to gain from time spent in class, unless otherwise approved by the instructor, students are prohibited from engaging in any form of distraction—this includes but is not limited to pagers and cell phones. In the classroom or during virtual meetings, cell phones need to be put away so that they do not disrupt the learning environment for you and others. Inappropriate behavior in the classroom shall result, minimally, in a request to leave class and a Professional Fitness Form will be filed for review with the college. If the instructor must file a Fitness Alert Form for any reason, including failure to demonstrate appropriate teaching dispositions, the student may receive an instructor drop with an "F" for the course

Any student who misses class (for any reason) remains responsible for contacting other students to obtain class materials. In the event that a class member is absent, for whatever reason, that individual assumes responsibility for contacting the instructor to account for missed work and to turn in work. It is impossible to provide a summary of all that takes place during any given class via email. If a student is going to be absent, they have the responsibility

to contact the instructor to turn in assignments and obtain copies of any handouts from the missed class. Tentative assignment due dates are listed on the course schedule. While the actual due dates may vary due to the flow of the class, all assignment due dates will be finalized and announced in class well in advance of the specific date. ***Late work, unless arrangements are made by the student and approved in advance by the instructor, will not be accepted for full credit.***

As previously mentioned, cheating, collusion, and plagiarism (the act of using source material of other persons, either published or unpublished, without following the accepted techniques of crediting, or the submission for credit of work not the individuals to whom credit is given) will not be considered. I use Turnitin for the written assignments and D2L directly syncs with it (you do not have to do anything). You will be able to see the plagiarism percentage and are welcome to make changes and resubmit **BEFORE** the due date. Any plagiarism of 30% and above is too much and the assignment will not be graded, given a zero, and no make-up allowed!!!

### **Services for Students with Disabilities**

In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, Midwestern State University endeavors to make reasonable accommodations to ensure equal opportunity for qualified persons with disabilities to participate in all educational, social, and recreational programs and activities. After notification of acceptance, students requiring accommodations should make application for such assistance through Disability Support Services, located in the Clark Student Center, Room 168, (940) 397-4140. Current documentation of a disability will be required in order to provide appropriate services, and each request will be individually reviewed. For more details, please go to [Disability Support Services](#).

### **Students with Disabilities:**

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make necessary arrangements. Students must present appropriate verification from the University's Disability Support Services (DSS) Office during the instructor's office hours. Please note that instructors are not allowed to provide classroom accommodation(s) to a student until appropriate verification from DSS has been provided.

### **College Policies**

Campus Carry Rules/Policies

Refer to: [Campus Carry Rules and Policies](#)

Smoking/Tobacco Policy

College policy strictly prohibits the use of tobacco products in any building owned or operated by WATC. Adult students may smoke only in the outside designated-smoking areas at each location.

Alcohol and Drug Policy

To comply with the Drug Free Schools and Communities Act of 1989 and subsequent amendments, students and employees of Midwestern State are informed that strictly enforced



policies are in place which prohibits the unlawful possession, use or distribution of any illicit drugs, including alcohol, on university property or as part of any university-sponsored activity. Students and employees are also subject to all applicable legal sanctions under local, state, and federal law for any offenses involving illicit drugs on University property or at University-sponsored activities.

#### COVID

Scientific data shows that being fully vaccinated is the most effective way to prevent and slow the spread of COVID-19 and has the greatest probability of avoiding serious illness if infected in all age groups. Although MSU Texas is not mandating vaccinations in compliance with Governor Abbott's executive orders, we highly encourage eligible members of our community to get a vaccination. If you have questions or concerns about the vaccine, please contact your primary care physician or health care professional. Given the recent rise in cases, individuals are also strongly encouraged to wear facial coverings when indoors among groups of people, regardless of vaccination status. Although MSU Texas is not currently requiring facial coverings, they have been an effective strategy in slowing the spread.

#### Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University [MSU Catalog](#)

#### Course Schedule

Disclaimer Notice: Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor to meet the needs of the class appropriately.

*All assignments are due on Sunday by 11:30pm. Please see attached document for a detailed course schedule.*

#### Other Expectations

As a part of your preparation for becoming a teacher, you are expected to begin acting in a professional manner – starting today. This includes, but is not limited to:

***Internship Experience*** – Throughout your internship experience, ask your mentor teacher to provide you with constructive feedback regarding your classroom presence, interactions with students and lessons that you present to the students. Use this information to make necessary improvements during the time that remains in the schedule. Always conduct yourself in a professional manner.

***Participation*** – It is not enough to just “show up.” In other words, you cannot just sit there and breathe. You need to be prepared to discuss the readings that are assigned, contribute appropriately, and encourage the participation of your peers.

***Preparation*** – Complete all assignments on time. Written assignments (whether submitted online or in class) will be discounted by 25% for each late day. Complete readings assigned prior to class in order to be able to participate in class discussions and activities.

***Attitude*** – Demonstrate the following dispositions that are essential for learning:

- Curiosity (ask questions, look for additional answers, probe, reflect)
- Flexibility (take alternate points of view, be open-minded)
- Organization (plan ahead – literally, GET A PLANNER!)
- Patience (take time to reason, be persistent in efforts)
- Risk-taking (try things beyond your current repertoire)
- Passion (invest in ideas, processes, products, and most of all – other people)

Be aware that your attitude is conveyed to others by body language, conversation, neatness, completeness of work, willingness to assist and contribute and many other ways. A sense of humor and the ability to be flexible are crucial – not just in this class but from now on – that is the nature of the classroom.

**Respect** – Be considerate of others. Do not talk while others are talking; do not use foul language; behave in an ethical manner. This is particularly important considering our classroom location - we are guests in the Wichita Falls school district and should behave as such.

**Professional Development** – Remember that teaching requires a commitment to continual learning. You will be asked to complete several “chores” as the semester rolls along and the points earned for dispositions are affected by those “chores.” Timely completion of tasks (or “chores”) is an indication of your “fitness” to this profession.

#### **From the MSU Bookstore:**

Mustangs, Welcome to Spring 22! EDUC 4043 201 is included in the Courseware Access & Affordability Program at MSU Texas. What does this mean?

1. Your materials will be available the first day of class, for all students in your class. To access your materials, please log into D2L and navigate to your course.
2. The charges for this material have been posted to your student account at the Business Office. If you want to “opt out” of this program and the cost savings, you will receive the “opt out” instructions in your [my.msutexas.edu](mailto:my.msutexas.edu) email on the second day of class.
3. The cost of your materials charged to your acct. is:
  - a. COSM Electronic Courseware \$46.87 Tax \$3.87
  - b. Comparable pricing at bookstore: \$67.25 Publisher’s website: \$49.99

If you have any questions or need assistance, please feel free to contact us over at the MSU Bookstore (940) 397-4303.

#### **References:**

- Ball, D. & Bass, H. (2003). Making mathematics reasonable in school’ in WG Martin and D Shifter (eds), *A research companion to principles and standards for school mathematics*, National Council of Teachers of Mathematics, Reston, Virginia, pp. 27-44.
- Carpenter, T. P., Fennema, E., Franke, M. L., Levi, L., & Empson, S. B. (2015). *Children’s mathematics: Cognitively guided instruction* (2<sup>nd</sup> ed.). Portsmouth, NH: Heinemann.

- Drake, C., Land, T.J., Franke, N., Johnson, J., & Sweeney, M.B. (in preparation). Learning to Teach Elementary Mathematics for Understanding.
- Fuson, K. C. (2003). Toward computational fluency in multidigit multiplication and division. *Teaching Children Mathematics*, 9(6), 300-305.
- Jacobs, V. R., Lamb, L. L., & Philipp, R. A. (2010). Professional noticing of children's mathematical thinking. *Journal for Research in Mathematics Education*, 41(2),169-202.
- Jacobs, V. R. & Spangler, D. A (2017). Research on core practices in K–12 mathematics teaching’, In J Cai (ed.), *Compendium for research in mathematics education*, National Council of Teachers of Mathematics, Reston, Virginia.
- Kling, G., & Bay-Williams, J. M. (2015). Three steps to mastering multiplication facts. *Teaching Children Mathematics*, 21(9), 548-559.
- National Council of Teachers of Mathematics (n.d.) *The case of Mr. Harris and the band concert*.
- Teuscher, D, Switzer, JM & Morwood, T, 2016, ‘Unpacking the practice of probing student thinking’, *Mathematics Teacher Educator*, vol. 5, no. 1, pp. 47-64.
- Van de Walle, J. A., Karp, K. S., & Bay-Williams, J. M. (2010). *Elementary and middle school mathematics: Teaching developmentally*. Boston: Allyn & Bacon (10<sup>th</sup> edition)

**I wish you all the very best and am so happy to have you all in class!!!**

## Appendix A: Standards/Competencies

### WCOE Standards

The outcomes for graduates of professional programs are based upon knowledge, skills, and dispositions in the following elements:

1. **Learner Development** - understand 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 design and implements developmentally appropriate and challenging learning experiences.
2. **Learning Differences** - understand individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
3. **Learning Environment** - work with others to create environments that support individual and collaborative learning, and that encourage positive social interaction, active engagement in learning, and self-motivation.
4. **Content Knowledge** - understand the central concepts, tools of inquiry, and structures of the discipline(s) he or she teaches and creates learning experiences that make the discipline accessible and meaningful for learners to assure mastery of the content.
5. **Application of Content** - understand 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.
6. **Assessment** - understand and use 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.
7. **Planning for Instruction** - plan 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.
8. **Instructional Strategies** - understand and use 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.
9. **Professional Learning and Ethical Practice** - engage in ongoing professional learning and use evidence to continually evaluate his or her practice, particularly the effects of his or her choices and actions on others (learners, families, other professionals, and the community), and adapts practice to meet the needs of each learner.
10. **Leadership and Collaboration** - seek appropriate leadership roles and opportunities to take responsibility for student learning, to collaborate with learners, families, colleagues, other school professionals, and community members to ensure learner growth, and to advance the profession.

### Competencies

**Competency 001** (Mathematics Instruction): The teacher understands how students learn mathematical skills and uses that knowledge to plan, organize and implement instruction and assess learning.

**Competency 002** (Number Concepts and Operations): The teacher understands concepts related to numbers, operations and algorithms and the properties of numbers.

**Competency 003** (Patterns and Algebra): The teacher understands concepts related to patterns, relations, functions, and algebraic reasoning

**Competency 004** (Geometry and Measurement): The teacher understands concepts and principles of geometry and measurement.

**Competency 005** (Probability and Statistics): The teacher understands concepts related to probability and statistics and their applications.

**Competency 006** (Mathematical Processes): The teacher understands mathematical processes and knows how to reason mathematically, solve mathematical problems, and make mathematical connections within and outside of mathematics.

### Course Objectives

1. Learners are able to describe learning and thinking in elementary and middle mathematics.
2. Learners will be able to develop curriculum and use effective instructional planning skills.
3. Learners will be able to develop appropriate assessment tools to assess students learning.
4. Learners will be able to use assessment data to design appropriate learning activities.
5. Learners will be able to develop lesson plans that involve students in an active learning environment.
6. Learners will be able to develop and implement effective teaching strategies.
7. Learners will be able to develop lesson plans/units that incorporate national standards in mathematics and technology applications.
8. Learners will be able to develop lesson plans/units that incorporate state standards in mathematics and technology applications.
9. Learners will be able to develop and implement learning environments that utilize various teaching/learning strategies.
10. Learners will be able to develop learning activities that involve the infusion of technology.

### Appendix B: Required assignment/standard alignment matrix

Assignment	Course Objectives - (CO #)	WCOE Standard (WCOE #) EC-6 Competency (EC6C #)
Intro Technology Assignment	CO #10	WCOE #4
Quiz #1	CO #1,10	WCOE #1,4,5,8 EC6C #1,6
Quiz #2	CO #3	WCOE #1,4,5,6, EC6C #1
Vertical Alignment Assignment	CO #1	WCOE #1,4,5, EC6C #1,2,3,4,5,6
Multicultural Mini Teaching	CO #2,4,5,7,8,10	WCOE #1,2,4,5,7,8,

		EC6C #1,2,6
Lesson Plan and Reflection	CO #2,4,5,7,8	WCOE #1,2,4,5,6,7,8,10 EC6C #1,2,3,4,5,6
Classroom Observation	CO #2,6,7,8,9	WCOE #1,2,3,4,5,6,7,8,10 EC6C #1,2,3,4,5,6
Data Analysis using Technology	CO #3,8,10	WCOE #4,6,8 EC6C #1,2,3,4,5,6
Quiz #3	CO #1	WCOE #1,4,5, EC6C #1,2,6
Constructed Response Assignment	CO #1,3,4,6	WCOE #1,2,5 EC6C #1,2,6
Fraction Assignment	CO #1,3,4,10	WCOE #2,4,5,6,10 EC6C #1,2,6
Quiz #4	CO #1	WCOE #1,4,5, EC6C #1,3,4,6
3-2-1 Video Response	CO #1,9	WCOE #1,2,3,7,8,9,10 EC6C #1,6
Final Exam	CO #1,2,3	WCOE #1,2,3,4,5,7,8,10 EC6C #1,2,3,4,5,6
Differentiation Assignment	CO #1,2,5,6,8	WCOE #1,2,4,5,8, EC6C #1,2,3,4,5,6
Field Experience	CO #1,2,3,4,6,9,10	WCOE #1,2,3,4,5,6,7,8,9,10 EC6C #1,2,3,4,5,6
In Class Activities: class discussion, lecture, guided reading, guest speakers, case study, peer practice, experiential learning, exploration, and role playing	CO #1,2,3,4,5,6,7,8,9,10	WCOE #1,2,3,4,5,6,7,8,9,10 EC6C #1,2,3,4,5,6