



Course Syllabus: Teaching Mathematics-Middle/HS

West College of Education

EDUC 4073 Section 101

Fall 2020 (Aug 22, 2020 – Dec 11, 2020)

Contact Information

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Office hours: Tuesdays & Thursdays 3 pm – 5 pm, Wednesdays 4 pm – 5 pm (virtual hours). You should schedule (the schedule link will be provided in D2L) your time to avoid conflicts. Please contact me for additional office hours.

Class Hours: Tuesdays and Thursdays 9:20 am – 10:55 am

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Other modes of communication: Discussion board in D2L.

Instructor Response Policy

Please send me an email regarding any concern, question, or doubt related with our course using the D2L email. My office email (austin.manuel@msutexas.edu) should NOT be used for emails related with this course. I will reply to your email queries within 24 hours on weekdays and within 48 hours on weekends. During holidays, there might be longer delays for the email. If you would call me and does not reach me, please leave your voice message with a number to call back and a convenient time to do so.

You may get a faster reply to your queries through the discussion board in D2L.

Textbook & Instructional Materials

Required Textbook: Stein, M. K., & Margaret, S. S. (2011). *5 Practices for Orchestrating Productive Mathematics Discussions*. Reston, VA : Thousand Oaks, CA: National Council of Teachers of Mathematics.

Course Description

This field-based, 3-credit course focuses on middle and secondary school math 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 create approaches to the learning/teaching process, cooperative learning, direct instruction, inquiry, concept attainment, etc.

Prerequisites for the Course

Prerequisites: EDUC 3163, EDUC 3183, EPSY 3153, and SPED 3613. Admission to the teacher education program. Concurrent enrollment in ETEC 4003.

Course Objectives/Learning Outcomes/Course Competencies

- Learners will be able to understand, describe and implement learning and thinking in mathematics in middle/high school level.
- Learners will be able to develop curriculum and use effective instructional planning skills.
- Learners will be able to develop appropriate assessment tools to assess students learning and use the assessment data to design appropriate learning activities.
- Learners will be able to develop lesson plans that involve students in an active learning environment, including flexible instructional strategies and differentiation.
- Learners will be able to develop lesson plans/unit plans that incorporate [national standards](#) and [state standards](#) in mathematics.
- Learners will be able to develop technology integrated instructional and assessment strategies and activities.
- Learners will be able to develop and implement effective teaching strategies including learner-centered instruction, integrating effective modeling, questioning and self-reflection strategies.
- Learner will be able to effectively implement discipline management procedures and communicate clear expectations for achievement and behavior for their students.
- Learners will be able to develop and implement learning environments (positive, equitable, engaging) that utilize various teaching/learning strategies, integrating critical thinking, inquiry, and problem solving.
- Learner will be able to assume various roles in the instructional process (facilitator, instructor, audience, ...)
- Learner will be able to provide quality and timely feedback to students.
- Learner will be able to differentiate instruction to meet the academic needs and behavioral needs of students with disabilities and LEP-ELL and to provide appropriate ways of the students to demonstrate their learning.
- Learner will be able to collaborate with professionals in meeting the needs of students with disabilities.
- Learner will be able to understand and adhere to federal and state laws and district and campus policies regarding Students with disabilities and LEP-ELL students and implement IEP decisions and assessments related with IEP goals and objectives.
- Learner will be able to model and teach the forms and functions of academic English in content areas.

- Learner will be able to build and maintain positive rapport with students and their families.

Standards and Competencies

West College of Education [WCOE] Conceptual Framework/Standards

The learning objectives are focused on the WCOE standards, which are enlisted in [Appendix A](#).

Mathematics Standards

In this course, we will focus on Mathematics Standards VII, VIII, and IX for all grade levels. Click on appropriate link to see the details. (Students are expected to have acquired appropriate content knowledge explained in Standards I – VI).

- [Mathematics Standards \(Grades 4-8\)](#)
- [Mathematics Standards \(Grades 7-12\)](#)

TEExES Exam Framework Standards and Competencies (Mathematics Standards)

In this course, we will focus on the following competencies associated with Standards VII, VIII, and IX above. Click appropriate links according to your test areas

- [4-8 Math \(Test 115\) Domain VI, Competencies 017, 018, 019,](#)
- [7-12 Math \(Test 235\) Domain VI, Competencies 020, 021 ,](#)
- [Core Subjects 4-8 Math section \(Test 211-809\) Subject Exam II Competencies 018, 019\)](#)

Pedagogy and Professional Standards (PPR)

In this course, we will focus on all the PPR Standards, while planning and teaching in the chosen Professional Development School.

- [PPR Standards, Grades 4-8](#) (TAC.19.7. Chapter 235.C.§235.41, a-g)
- [PPR Standards, Grades 7-12](#) (TAC.19.7. Chapter 235.D.§235.61, a-g)

TEExES Exam Framework Standards and Competencies (PPR Standards)

- [EC-12 \(Test 160\) All Standards, All Competencies](#)

Texas Teaching Standards (TAC 19.2. Chapter 149.AA. Rule §149.1001)

In this course we will focus on all standards (1-6) of the [Teacher Standards](#).

Technology Standards

In this course, we will focus on Standards I – VII of [Technology Standards](#) from the Texas State Board for Educator Certification, 2016.

See [Appendix A](#) for a complete list of standards

Study Hours and Tutoring Assistance

Tutoring and Academic Support Programs (TASP) offers a schedule of selected subjects tutoring assistance. Please visit the [TASP webpage](#) for more information.

Student Handbook

Refer to: [Student Handbook-2019-20](#)

Academic Misconduct Policy & Procedures

MSU students demand of themselves the highest level of academic honesty as delineated in their honor creed. Academic honesty involves the submission of work that is wholly the student's own work, except in the case of assigned group work. Additionally, academic honesty involves the proper citation of other authors' works. I will run all your submissions through Turnitin© to check for their authenticity.

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 of somebody else's work for credit). Additional guidelines on procedures in these matters may be found in the [Office of Student Conduct](#).

Intellectual Property

By enrolling in this course, the student expressly grants MSU a limited right in all intellectual property created by the student for the purpose of this course. The limited right shall include but shall not be limited to the right to reproduce the student's work / products in order to verify originality and authenticity, and for educational purposes. Refer [Student Handbook](#)

Grading/Assessment

Assignments related to Observation:

1. Observation Lesson Plan (100 points): Due 5 working days before the observation in D2L.

You learned how to plan a lesson in your classroom management class. You will put the theory of lesson plan making into practice during this semester when you apply the plan in the classrooms. Details of the lesson plan requirements, template, and the rubric will be explained in class.

2. Pre-conference and post-conference (50 points): At least 5 working days before the observation.

You should schedule both conferences and discuss the observation lesson before and after your observation. I will not be able to observe your class without the pre-conference session. I will not be able to post your grades for the observation and assignments related to the observation without the post-conference.

3. Classroom Teaching Observation (100 points) (No submissions)

This is the evaluation of your observation class, based on the observation rubric which will be discussed in class. You do not submit any document for this assignment.

4. Teaching Reflection (50 points). Due 11:30 on the same day of your observation in D2L.

The prompts for the reflection paper will be provided. Use Times New Roman, 12-point font, and 2-line spacing. Length will not be considered but writing should explain/ reveal your thoughts and insights. *Note* – one liners, incomplete sentences, or lack of depth will result in reduction of grade. Prompts are given to make your reflection insightful.

5. Technology Integration (50 Points) (No Submissions)

This is the evaluation of the technology integration in your observed class, based on Technology Standards. We will discuss the details and the rubrics in class. You do not submit any document for this assignment.

6. Technology Critique (50 Points). Due 11:30 on the same day of your observation in D2L.

Will discuss the template and details in class.

Assignments not related to Observation:

1. Unit Plan – the Capstone assignment (200 points):

Details of the unit plan assignment, template, and rubrics will be discussed in class.

2. Article reviews (25 points each)

Two article reviews are due during this semester. Get the articles from the NCTM's professional journals: *Teaching Children Mathematics*, *The Mathematics Teacher* or *Teaching in Middle School* (from the past 15 years and targeting the teaching and learning of middle/high-school-math). Each review should be typed (APA 7th style). See Rubric for details. The rubric for article reviews will be discussed in class.

3. Dispositions/Classroom Participation (100 points) (No submissions)

Much of the learning in this course takes place by participating, sharing, and experiencing. This cannot take place if you are absent, late to class, or if you are not fully engaged in class activities. Your total points for this course component will be determined through your dispositions and participation in class activities. A part of the participation grade is also kept specifically for being tardy. Another major part of the participation grade will be from class discussions and assigned activities. *So, be alert and be ready to talk!*

4. Assignment 7 (Manipulatives/Foldables) options.

It is important for you to identify, collect and organize instructional resources to support the teaching and learning of middle/high school level mathematics. You should create and submit at least 5 manipulatives/ foldables to guide learner from concrete to abstract for the TEKS (can be different for each item) of your choice. You should include the TEKS, learning objective(s) and a detailed explanation on how the manipulative/foldable would help the students to achieve the learning objective associated with the TEKS.

- Foldables geared towards teaching mathematics vocabulary (maximum 2).
- Teacher made instructional manipulative with instructions on using the manipulative (maximum 2).
- Foldable to teach middle/high school mathematics content. (maximum 2).
- Literature connecting middle/high school level mathematics to the real-world. The activity should center on using literature to enrich the middle/high school mathematics content. You should include explanation on how the literature would help the students to enhance their understanding of the selected learning objectives and TEKS (maximum 2).

5. Assignments. (25 points each. Total points 200. (25 times 8).

These assignments are directed towards effective teaching of middle/high school mathematics content and will cover relevant mathematics topics and effective methods to teach the mathematics concepts. These assignments will also address the standards mentioned in the syllabus.

Table 1: Points allocated to each assignment

Item	Grade Item	Where to submit?	Score
1	Article Review 1	In D2L	25
2	Article Review 2	In D2L	25
3	Unit Plan	In D2L (linked to TK20)	200
4	Dispositions	No submissions	100
5	Assignments (25 points each)	Check tentative schedule	200
6	Pre- post- conferences	No submissions	50
7	Observation Lesson Plan	Observation day	100
8	Classroom teaching observation	No submissions	100
9	Teaching Reflection	Observation day	50
10	Technology Integration	No submissions	50
11	Technology Critique	Observation day	50
12	Field Experience Observation and Reflections: Scan items 8 & 9 in one pdf	In D2L (linked to TK20)	-
		Total Points	950

Table 2: Letter Grade Scale

Letter Grade	Percentage
A	90% – 100%
B	80% – 89%
C	70% – 79%
D	60% – 69%
F	Below 60%

Late Work and Make Up Work

Late work will not be accepted. There will not be any opportunities to make up your work after the due date. If some unavoidable emergencies happen, you have to let me know at the earliest.

Important Dates

Change of Schedule and Late Registration: August 24-26, 2020.

Deadline for December graduates to file for graduation: September 28, 2020

Deadline for May graduates to file for graduation: October 5, 2020

Last Day to drop with a grade of "W:" December 4, 2020

Refer to [academic calendar](#) for more details.

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 every absence in the class or field, the student should schedule an appointment with the course instructor to discuss the absence. Failure to schedule and attend a conference will result in the loss of classroom participation and disposition points.
- It is the candidate's responsibility to make up any missed work or assignments due to the absence.
- 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 inform the absence and to find appropriate ways to make up the 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.
- 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.

Desire-to-Learn (D2L)

Extensive use of the MSU D2L program is a part of this course. Each student is expected to be familiar with this program 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. If you experience difficulties, please contact the technicians listed for the program or contact your instructor. You need to have access to a computer (with Internet access) to complete and upload your assignments. **Assignments and tests are due by the due date, and personal computer technical difficulties will not be considered 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!!** There are many places to access your class! Contact your instructor immediately upon having computer trouble. 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](#).

Professional Conduct and Classroom Policies

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). You should follow the code of ethics provided by your Professional Development School.

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. Electronic communications devices will be turned off anytime the class member is in the school building— in our classroom or in a field experience classroom. 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.

Your participation in classes at a Professional Development School is a privilege, not a right. Our relationship with these schools is critical to the development of strong teachers. If, for any reason, you are asked to leave a Professional Development School, you will be dropped from the course in accordance with the Instructor Drop policy (see below) of the academic catalog. This is your warning as required by the policy. If a candidate is taking 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.

Instructor Drop

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. The instructor must give the student a verbal or written warning prior to dropping the student from the class. An instructor's drop of a student 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 a long semester, the first 6 weeks of a 10-week summer term, or the 11th class day of a 4-week or 5-week summer term consisting of 20 days. After

these periods 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).

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](#).

College Policies

Campus Carry Rules/Policies

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

Concealed Carry at Professional Development Schools:

Although MSU follows the requirements of concealed carry on its campus, this does not negate nor supersede state laws regarding the carrying of firearms on K-12 public school campuses. You may not carry a firearm on a K-12 campus. Some public schools' campuses have authorized specific personnel to carry a concealed handgun. This does not apply to you.

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.

Grade Appeal Process

Students who wish to appeal a grade should consult the Midwestern State University graduate catalog for the process. The current catalog can be downloaded from the link provided in the webpage for [University Catalog](#).

Observation Schedule

Each candidate needs to be observed one time by your math methods professor. If a candidate requests to be observed outside of the designated course time, and the Mentor Teacher has approved it, you should schedule the observation with your math method professor. Duration for observations and the schedule for the same will be discussed in class. Please use this [google spreadsheet](#) at the earliest to schedule your Observation Class. When you begin scheduling your observations, please remember that this is a professional document; you may not delete/move/overwrite anyone's name. You must only type your name in an empty box. Please be sure to submit your observation lesson plan to me at least seven days before you plan to teach it. In addition, you need to schedule and meet with me for a pre-conference to discuss your lesson plan before teaching the class. Without this pre-conference, I will not observe your class. A post-conference is also required to complete the observation process. Please plan accordingly.

A General Overview of Program

Professionalism

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. They will not be accepted after the grade is reduced by 75%. 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.

- *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.

Assessment

As you complete the assignments for this class, you will demonstrate skills from the following five categories and will be assessed based on them:

Domain I: Planning and Preparation - demonstrate knowledge of content and pedagogy; demonstrate knowledge of students; select instructional goals; demonstrate knowledge of resources; design coherent instruction; assess student learning.

- Plan *minds-on* lessons in a unit around *powerful ideas* that have students actively involved in the learning process.
- Use the TEKS and district assigned standards for mathematics instruction.
- Curriculum and NCTM standards, to develop and present the lessons.
- Content understanding and learning goals are assessed.
- Data collection and analysis.

Domain II: Classroom Environment - establish a culture for learning.

Field experience observation: Teach one Math lesson in your field experience placement. Submit Lesson Plan to me AND your mentor teacher *five school days*

in advance. Lesson cannot be taught until approved by both of us and must be observed by me.

Domain III: Instruction - communicate clearly and accurately; use questioning and discussion techniques; engage students in learning; provide feedback to students; demonstrate flexibility and responsiveness.

- Field experience observation.
- Peer instruction and reviews.
- Classroom activities
- Problem-solving

Domain IV: Professionalism - Reflect on teaching; show professionalism; contribute to the school and/or district.

- Reflection required after Math lesson taught.
- Being *present* in class in a prompt manner.
- Classroom Participation.

Domain V: Technology Integration - demonstrate the use of technology in the learning/teaching process.

- Integrate technology by being aware of various resources and its effectiveness and application to the curriculum.
- Integrate technology and correlate it to the Math TEKS by critically analyzing I-pads apps for teaching mathematics.
- Assignments accurately posted through D2L and TK20.

Assessments

Clinical experiences at the WCOE, including both initial clinical experiences (e.g. classroom observations) and clinical teaching, are an essential part of the professional preparation program. Clinical experiences vary across many WCOE undergraduate programs and are designed and implemented through collaboration with school district and community partners. WCOE teacher candidates gain essential knowledge, skills, and dispositions through observations and teaching opportunities in a wide variety of diverse settings (e.g. urban/rural, SES, special needs, race/ethnicity). WCOE believes in gradual release of responsibilities and exposes and evaluates teacher candidates throughout the program so as to provide them with the best learning experience. Below are the assessments that are used across courses and programs to effectively monitor teacher candidates' progress.

Dispositions

Candidates in the teacher education program are evaluated on their dispositions towards the 10 InTASC standards three times (beginning, middle, end) during their program in Educational Psychology, Professional Methods Block A, and Clinical Teaching in the following areas:

- Candidates respect learners' differing strengths and needs and are committed to using this information to further each learner's development.
- Candidates believe that all learners can achieve at high levels and persist in helping each learner reach his/her full potential.

- Candidates are committed to working with learners, colleagues, families, and communities to establish positive and supportive learning environments.
- Candidates realize that content knowledge is not a fixed body of facts but is complex, culturally situated, and ever evolving. He or she keeps abreast of new ideas and understandings in the field.
- Candidates value flexible learning environments that encourage learner exploration, discovery, and expression across content areas.
- Candidates are committed to using multiple types of assessment processes to support, verify, and document learning.
- Candidates respect learners' diverse strengths and needs and are committed to using this information to plan effective instruction.
- Candidates are committed to deepening awareness and understanding the strengths and needs of diverse learners when planning and adjusting instruction.
- Candidates take responsibility for student learning and use ongoing analysis and reflection to improve planning and practice.
- Candidates actively share responsibility for shaping and supporting the mission of his/her school as one of advocacy for learners and accountability for their success.

Candidates are evaluated by faculty in those courses at a developing, beginning, and mastery level of competency as determined by the academic committee on program quality. The evaluation is based upon evidence gathered through classroom participation, assignments, observed field experiences and unit planning.

Data Literacy Assignment

Teacher candidates are expected to demonstrate the ability to interpret standardized test data and make instructional decisions based on the test data from students. At the conclusion of the Classroom Assessment/Assessment in PE, students will develop an understanding of assessment practices that enable them to accurately read and interpret testing data. In addition, teacher candidates will apply concepts learned in the course to explain what the data means and what, if any, interventions should be implemented for targeting specific groups of students. By identifying weak areas of conceptual understanding of their students, teacher candidates can create appropriate instructional strategies that lead to greater student success.

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, and assessment. Student engagement is a key element in a good lesson with a goal of student learning/success is the ultimate goal.

Candidates must form an assessment strategy to determine the extent to which students are able to master learning of objectives. Candidates also describes 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 the lesson delivery, appropriateness of instructional strategies, impact for future planning, and opportunities for collaboration with mentor teacher. The skills acquired during lesson planning provides the foundation and are also built upon for unit planning and other key assessments.

Unit Plan

Teacher candidate's ability to demonstrate the ability to plan, assess, and implement instruction continues in the professional block with the Unit plan assessment. The unit plan assessment is a modified form of Midwestern Impact on Student Learning (MISL) that requires teacher candidates to plan a unit of teaching. Candidates are required to determine a set of multiple learning objectives aligned to state content standards Texas Essential Knowledge and Skills (TEKS) appropriate to the lesson(s) the candidate is preparing. This key assignment should be submitted in TK20.

Co-Teaching

WCOE adopts a co-teaching model for the candidates during their clinical experiences. These strategies include the following:

- One Teach, One Observe — One teacher has primary instructional responsibility while the other gathers specific observational information on students or the (instructing) teacher. The key to this strategy is to have a focus for the observation.
- One Teach, One Assist — One teacher has primary instructional responsibility while the other teacher assists students with their work, monitors behaviors, or corrects assignments.
- Station Teaching — The co-teaching pair divide the instructional content into parts and the students into groups. Groups spend a designated amount of time at each station. Of-ten an independent station will be used.
- Parallel Teaching — Each teacher instructs half of the students. The two teachers are addressing the same instructional material and present the lesson using the same teaching strategy. The greatest benefit is the reduction of student to teacher ratio.

- Supplemental Teaching — This strategy allows one teacher to work with students at their expected grade level, while the co-teacher works with those students who need the information and/or materials extended or remediated.
- Alternative/Differentiated Teaching — Alternative teaching strategies provide two different approaches to teaching the same information. The learning outcome is the same for all students, however the instructional methodology is different.
- Team Teaching — Well planned, team taught lessons, exhibit an invisible flow of instruction with no prescribed division of authority. Using a team-teaching strategy, both teachers are actively involved in the lesson. From a student's perspective, there is no clearly defined leader, as both teachers share the instruction, are free to interject information, and available to assist students and answer questions. (Adapted from Cook & Friend (1995))

Midwestern Impact on Student Learning [MISL]

Successful completion and submission of a MISL portfolio is required during the first six weeks of clinical teaching. Teachers candidates are required to plan, implement, and assess student learning within a unit of study. The Midwestern Impact on Student Learning (MISL) measures content knowledge, pedagogical knowledge, and effect on student learning in the following areas/domains: Learning Environments; Individual Development and Diversity; Collaboration; Planning Process and Content; Assessment; Strategies and Methods; Reflection; Professional Development; and Communication.

Each of the 10 areas is scored with one of 4 ratings: Exemplary 4, Competent 3, Needs Improvement 2, and Unsatisfactory 1. An overall score of 20 (meets expectations) is required for successful completion of student teaching for all teacher candidates.

The MISL is a record of candidates' ability to carefully consider all contextual factors that influence instruction and to then use those factors to plan and design a unit of instruction, including an assessment plan that can demonstrate changes in student knowledge, skills, or dispositions resulting from instruction. The MISL includes both reflexive (description of instructional decision making during the unit) and reflective components that encourage candidates to plan instruction strategically and to approach teaching in a purposeful, thoughtful, and methodical manner.

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Tentative Mathematics Methods Schedule

Notice

Changes in the course syllabus, procedure, assignments, and schedule may be made at the discretion of the instructor.

Date	Type	To do today	Discussion in Class
8/25/2020, Tuesday	Class	Read chapter 1 & 2	Day 1 details, TEKS, Standards (Domain VI), LOs, Assignments, general questions, TK20, time log, Turnitin©. Observations (Pre-Conference, Observation, Post Conference)
8/27/2020, Thursday	Class (Share your reading)	Submit Assignment 1 (11:30 pm, 8/30/2020); Read chapter 3	TEKS, Create Learning Objectives, formative assessment, rubric for assessment, data collection from assessment, planning for using student responses/data to inform instruction.
9/1/2020, Tuesday	Class (Share your reading)	Submit Assignment 2 (11:30 pm, 9/2/2020); Read chapter 4	Differentiation and Accommodation, Flexible instructional strategies
9/3/2020, Thursday	Class (Share your reading)	Submit Assignment 3 (11:30 pm, 9/6/2020); Read chapter 5	Technology integration.
9/8/2020, Tuesday	Class (Share your reading)	Submit Assignment 4 (11:30 pm, 9/13/2020); Chapter 6 & 7. Create your lesson for Teach1	5 Practices - practice in class using the selected TEKS. Instruction on writing article reviews, APA 6 style. Discuss Observations 2(Pre Conference, Observation, Post Conference)

Date	Type	To do today	Discussion in Class
9/10/2020, Thursday	Field	Field Activities	Field Activities
9/15/2020, Tuesday	Class Teach1 (Share how reading helped Teach1 lesson)	Collaborate with Teach 2 partner for Assignment 6 (in class - Teach2)	Assignment 5 - in class - Teach 1; select co- teaching partner for Teach 2. Remind submitting Article Review1
9/17/2020, Thursday	Field	Submit Article Review 1 (11:30 pm, 9/20/2020)	Field Activities
9/22/2020, Tuesday	Class	Teach1	Co-teaching strategies - Continue Teach 1 Review Article Review1 submissions.
9/24/2020, Thursday	Field	Submit Article Review 2 (11:30 pm, 9/27/2020)	Field Activities
9/29/2020, Tuesday	Class; Teach2	Work on Assignment 7	Assignment 6 -Teach 2
10/1/2020, Thursday	Field	Submit Assignment 7 (11:30 pm, 10/4/2020)	Field Activities
10/6/2020, Tuesday	Class	Teach2	Assignment 6 -Teach 2
10/8/2020, Thursday	Field	Field Activities	Field Activities

Date	Type	To do today	Discussion in Class
10/13/2020, Tuesday	Class	Work on Assignment 8	Project based learning (PBL)
10/15/2020, Thursday	Field	Submit Assignment 8 (11:30 pm, 10/18/2020)	Field Activities
10/20/2020, Tuesday	Class	Field Activities	Unit Plan Discussion
10/22/2020, Thursday	Field	Field Activities	Field Activities
10/27/2020, Tuesday	Field	Field Activities	Field Activities
10/29/2020, Thursday	Field	Field Activities	Field Activities
11/3/2020, Tuesday	Field	Field Activities	Field Activities
11/5/2020, Thursday	Field	Field Activities	Field Activities
11/10/2020, Tuesday	Field	Field Activities	Field Activities
11/12/2020, Thursday	Field	Field Activities	Field Activities
11/17/2020, Tuesday	Field	Field Activities	Field Activities
11/19/2020, Thursday	Field	Field Activities	Field Activities

Date	Type	To do today	Discussion in Class
11/24/2020, Tuesday	Class (at MSU)	Submit Unit Plan (11:30 pm, 11/29/2020)	Taking the Domain VI part of the TExES
12/1/2020, Tuesday	Field	Field Activities	Field Activities
12/3/2020, Thursday	Class	Winding up the course	Open for discussion

Minimum Field Hours Requirement:

- 1. All Kinesiology Student-Teachers should get at least 25 field hours.**
- 2. If you are enrolled only in Mathematics Methods course, you should get at least 36 field hours.**
- 3. If you are enrolled in Science and Social Studies methods courses as well, you need to get at least 36 field hours in all three methods classes combined.**

References and Additional Readings

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Appendix A: Standards/Competencies

West College of Education [WCOE] Conceptual Framework/Standards

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

- 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.
- Learning Differences - understand individual differences and diverse cultures and communities to ensure inclusive learning environments that enable each learner to meet high standards.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.

Mathematics Standards

In this course, we will focus on Mathematics Standards VII, VIII, and IX for all grade levels. Click on appropriate link to see the details.

- [Mathematics Standards \(Grades 4-8\)](#)
- [Mathematics Standards \(Grades 7-12\)](#)

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.

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.

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.

TEExES Exam Framework Standards and Competencies (Mathematics Standards)

Click appropriate links according to your test areas

- [4-8 Math \(Test 115\) Domain VI, Competencies 017, 018, 019,](#)

Domain VI — Mathematical Learning, Instruction and Assessment

Competency 017: The teacher understands how children learn and develop mathematical skills, procedures and concepts.

Competency 018: The teacher understands how to plan, organize and implement instruction using knowledge of students, subject matter and statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) to teach all students to use mathematics.

Competency 019: The teacher understands assessment and uses a variety of formal and informal assessment techniques to monitor and guide mathematics instruction and to evaluate student progress.

- [7-12 Math \(Test 235\) Domain VI, Competencies 020, 021](#)

Domain VI — Mathematical Learning, Instruction and Assessment

Competency 020: The teacher understands how children learn mathematics and plans, organizes and implements instruction using knowledge of students, subject matter and statewide curriculum (Texas Essential Knowledge and Skills [TEKS]).

Competency 021: The teacher understands assessment and uses a variety of formal and informal assessment techniques to monitor and guide mathematics instruction and to evaluate student progress.

- [Core Subjects 4-8 Math section \(Test 211-809\) Subject Exam II Competencies 018, 019\)](#)

Competency 018—The teacher understands how to plan, organize and implement instruction using knowledge of students, subject matter and statewide curriculum (Texas Essential Knowledge and Skills [TEKS]) to teach all students to use mathematics.

Competency 019—The teacher understands assessment and uses a variety of formal and informal assessment techniques to monitor and guide mathematics instruction and to evaluate student progress.

Pedagogy and Professional Standards (PPR)

In this course, we will focus on all the PPR Standards, while planning and teaching in the chosen Professional Development School.

[PPR Standards, Grades 4-8](#) (TAC.19.7. Chapter 235.C.§235.41, a-g)

- (a) Grades 4-8 pedagogy and professional responsibilities (PPR) standards. The PPR standards identified in this section are targeted for classroom teachers of students in Grades 4-8. The standards address the discipline that deals with the theory and practice of teaching to inform skill-based training and development. The standards inform proper teaching techniques, strategies, teacher actions, teacher judgements, and decisions by taking into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. The standards are also aligned with the Commissioner's Teacher Standards in 19 TAC Chapter 149 of this title (relating to Commissioner's Rules Concerning Educator Standards).
- (b) Instructional Planning and Delivery. Grades 4-8 classroom teachers demonstrate understanding of instructional planning and delivery by providing standards-based, data-driven, differentiated instruction that engages students and makes learning relevant for today's learners.
- (c) Knowledge of Student and Student Learning. Grades 4-8 classroom teachers work to ensure high levels of learning and achievement outcomes for all students, taking into consideration each student's educational and developmental backgrounds and focusing on each student's needs.
- (d) Content Knowledge and Expertise. Grades 4-8 classroom teachers exhibit an understanding of content and related pedagogy as demonstrated through the quality of the design and execution of lessons and the ability to match objectives and activities to relevant state standards.
- (e) Learning Environment. Grades 4-8 classroom teachers interact with students in respectful ways at all times, maintaining a physically and emotionally safe, supportive learning environment that is characterized by efficient and effective routines, clear expectations for student behavior, and organization that maximizes student learning.
- (f) Data-Driven Practices. Grades 4-8 classroom teachers use formal and informal methods to assess student growth aligned to instructional goals and course objectives and regularly review and analyze multiple sources of data to measure student progress and adjust instructional strategies and content delivery as needed.

- (g) Professional Practices and Responsibilities. Grades 4-8 classroom teachers consistently hold themselves to a high standard for individual development, collaborate with other educational professionals, communicate regularly with stakeholders, maintain professional relationships, comply with all campus and school district policies, and conduct themselves ethically and with integrity.

[PPR Standards, Grades 7-12](#) (TAC.19.7. Chapter 235.D.§235.61, a-g)

- (a) Grades 7-12 pedagogy and professional responsibilities (PPR) standards. The PPR standards identified in this section are targeted for classroom teachers of students in Grades 7-12. The standards address the discipline that deals with the theory and practice of teaching to inform skill-based training and development. The standards inform proper teaching techniques, strategies, teacher actions, teacher judgements, and decisions by taking into consideration theories of learning, understandings of students and their needs, and the backgrounds and interests of individual students. The standards are also aligned with the Commissioner's Teacher Standards in 19 TAC Chapter 149 of this title (relating to Commissioner's Rules Concerning Educator Standards).
- (b) Instructional Planning and Delivery. Grades 7-12 classroom teachers demonstrate understanding of instructional planning and delivery by providing standards-based, data-driven, differentiated instruction that engages students and makes learning relevant for today's learners.
- (c) Knowledge of Student and Student Learning. Grades 7-12 classroom teachers work to ensure high levels of learning and achievement outcomes for all students, taking into consideration each student's educational and developmental backgrounds and focusing on each student's needs.
- (d) Content Knowledge and Expertise. Grades 7-12 classroom teachers exhibit an understanding of content and related pedagogy as demonstrated through the quality of the design and execution of lessons and the ability to match objectives and activities to relevant state standards.
- (e) Learning Environment. Grades 7-12 classroom teachers interact with students in respectful ways at all times, maintaining a physically and emotionally safe, supportive learning environment that is characterized by efficient and effective routines, clear expectations for student behavior, and organization that maximizes student learning.
- (f) Data-Driven Practices. Grades 7-12 classroom teachers use formal and informal methods to assess student growth aligned to instructional goals and course objectives and regularly review and analyze multiple sources of data to measure student progress and adjust instructional strategies and content delivery as needed.

- (g) Professional Practices and Responsibilities. Grades 7-12 classroom teachers consistently hold themselves to a high standard for individual development, collaborate with other educational professionals, communicate regularly with stakeholders, maintain professional relationships, comply with all campus and school district policies, and conduct themselves ethically and with integrity.

TEXES Exam Framework Standards and Competencies (PPR Standards)
[PPR EC-12 \(Test 160\) All Standards, All Competencies](#)

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.

Standard II

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

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.

Standard IV

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

Technology Applications (in PPR assessment)

Standard I

All teachers use and promote creative thinking and innovative processes to construct knowledge, generate new ideas, and create products.

Standard II

All teachers collaborate and communicate both locally and globally using digital tools and resources to reinforce and promote learning.

Standard III

All teachers acquire, analyze, and manage content from digital resources.

Standard IV

All teachers make informed decisions by applying critical-thinking and problem-solving skills.

Standard V

All teachers practice and promote safe, responsible, legal, and ethical behavior while using technology tools and resources.

Standard VI

All teachers demonstrate a thorough understanding of technology concepts, systems, and operations.

Texas Teaching Standards (TAC 19.2. Chapter 149.AA. Rule §149.1001)

In this course we will focus on all standards (1-6) of the [Teacher Standards](#).

Standard 1

Instructional Planning and Delivery. Teachers demonstrate their understanding of instructional planning and delivery by providing standards-based, data-driven, differentiated instruction that engages students, makes appropriate use of technology, and makes learning relevant for today's learners.

Standard 2

Knowledge of Students and Student Learning. Teachers work to ensure high levels of learning, social-emotional development, and achievement outcomes for all students, taking into consideration each student's educational and developmental backgrounds and focusing on each student's needs.

Standard 3

Content Knowledge and Expertise. Teachers exhibit a comprehensive understanding of their content, discipline, and related pedagogy as demonstrated through the quality of the design and execution of lessons and their ability to match objectives and activities to relevant state standards.

Standard 4

Learning Environment. Teachers interact with students in respectful ways at all times, maintaining a physically and emotionally safe, supportive learning environment that is characterized by efficient and effective routines, clear expectations for student behavior, and organization that maximizes student learning.

Standard 5

Data-Driven Practice. Teachers use formal and informal methods to assess student growth aligned to instructional goals and course objectives and regularly review and analyze multiple sources of data to measure student progress and adjust instructional strategies and content delivery as needed.

Standard 6

Professional Practices and Responsibilities. Teachers consistently hold themselves to a high standard for individual development, pursue leadership opportunities, collaborate with other educational professionals, communicate regularly with stakeholders, maintain professional relationships, comply with all campus and school district policies, and conduct themselves ethically and with integrity.

Technology Standards

In this course, we will focus on Standards I – VII of [Technology Standards](#) from the Texas State Board for Educator Certification, 2016.

Standard I.

All teachers use and promote creative thinking and innovative processes to construct knowledge, generate new ideas, and create products.

Standard II.

All teachers collaborate and communicate both locally and globally using digital tools and resources to reinforce and promote learning.

Standard III.

All teachers acquire, analyze, and manage content from digital resources.

Standard IV.

All teachers make informed decisions by applying critical-thinking and problem-solving skills.

Standard V.

All teachers practice and promote safe, responsible, legal, and ethical behavior while using technology tools and resources.

Standard VI. All teachers demonstrate a thorough understanding of technology concepts, systems, and operations.

Standard VII. 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.