Program Guidebook

Master of Arts in Teaching, Mathematics Education (Middle Grades)

The Master of Arts in Teaching-Mathematics Education (Middle Grades) is a competency-based degree program that prepares students at the graduate level both to be licensed to teach mathematics in middle grades and to develop significant skills in mathematics curriculum development, design, and evaluation. All work in this degree program is online with the exception of the Demonstration Teaching and in-classroom field experience components, which prepare teacher candidates for the classroom. Candidates develop and refine their teaching skills through a series of sequential experiences beginning with video-based observations of classroom instructionand participation in simulated classroom environments.Observations prepare candidates for an authentic, collaborative pre-clinical teaching experiences in K-12 settings. Clinical experiences culminate with supervised demonstration teaching in a real classroom. Students enter this program with a significant background in mathematics and then proceed through study in the Foundations of Teaching, Instructional Planning and Presentation, Mathematics Education, video-based classroom observation, Pre-Clinical Experiences, Demonstration Teaching, and Research Fundamentals.

Understanding the Competency-Based Approach

Practically speaking, how do competency-based programs like those offered at Western Governors University (WGU) work? Unlike traditional universities, WGU does not award degrees based on completion of a certain number of credit hours or a certain set of required courses. Instead, you will earn ˆ[˘¦Åå^*¦^^ÅàˆÅå^ {[}•c¦æcã}*Áˆ[˘¦Å•\ã||•ÊÁ\}[¸|^å*^ÊÁæ}åÁˇ}å^¦•cæ}ãâ}*Á[~Åâ{][¦cæ}cÁ&[}&^]c•ÊÁÁ

Progress through a degree program is governed not by the amount of time you spend in class but by your ability to demonstrate mastery of competencies as you complete required courses. Of course, you will need to engage in learning experiences as you review competencies or develop knowledge and skills in areas in which you may be weak. To help you acquire the knowledge and skills you need to complete your courses and program, WGU provides a rich array of learning resources. Your program mentor will work closely with you to help you understand the competencies required for your program and to help you create a schedule for completing your courses. You will also work closely with course instructors as you engage in each of your courses. As subject matter experts, course instructors will guide you through the &[}c^}cÁˆ[˘Á{˘•cÁ{æ•c^¦Ác[Á]æ••Ác@^Á&[˘¦•^Áæ••^•• {^}c•ÊÁÁ

The benefit of this competency-based system is that it enables students who are knowledgeable about a particular subject to make accelerated progress toward completing a degree, even if they lack college experience. You may have gained skills and knowledge of a subject while on the job, accumulated wisdom through years of life experience, or already taken a course on a particular subject. WGU will award your degree based on the skills and knowledge that you possess and can demonstrate—not the

pre-assessments are there to help your program mentor form a profile of your prior knowledge and create a personalized Degree Plan.

How You Will Interact with Faculty

At WGU, faculty serve in specialized roles, and they will work with you individually to provide the guidance, instruction, and support you will need to succeed and graduate. As a student, it is important for ˆ[ˇÁc[Ácæ\^Áæåçæ}cæ*^Á[-Ác@â•Á•ˇ]][¦cÈÁQcÁâ•Á\^ˆÁc[Áˆ[ˇ¦Á]¦[*¦^••Áæ}åÁˇ|cã{æc^Á•ˇ&&^••ÈÁ

Upon your enrollment, you will be assigned a program mentor—an expert in your field of study who will provide you with regular program-level guidance and support from the day you start until the day you graduate. Your program mentor will set up regular telephone appointments (weekly at first) with you, which you will be expected to keep. The mentor will review program competencies with you and work with you to develop a plan and schedule for your coursework. Your program mentor will serve as your main point of contact throughout your program—helping you set weekly study goals, recommending specific learning materials, telling you what to expect in courses, and keeping you motivated. In addition to regular

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required to demonstrate your skills and knowledge by completing the assessment(s) for each course. In general there are two types of assessments: performance assessments and objective assessments. Performance assessments contain, in most cases, multiple scored tasks such as projects, essays, and research papers. Objective assessments include multiple-choice items, multiple-selection items, matching, short answer, drag-and-drop, and point-and-click item types, as well as case study and video-based items. Certifications verified through third parties may also be included in your program. More å^cæâ|^åÅâ}~[¦{æcâ[}Åæà[˘cÅ^æ&@Åæ••^•• {^}cÅä•Å]¦[çâå^åÅâ}Å^æ&@Å&[˘¦•^Å[~Å•c˘åˆÈÅ

External Content & Basic Skills Exams

Western Governors University requires that candidates pass the state-mandated content exam that aligns with their WGU program in addition to a basic skills exam (initial licensure programs only). Specific information regarding required content and basic skills exams required for each program and state can be found in the WGU Student Handbook. In many cases, it is the candidates' responsibility to register and pay for the required exams and submit their official passing score reports to WGU.

State Licensure Requirements

Many states have specific licensure requirements that are not part of WGU programs that you will have to fulfill in addition to the degree requirements of your program. These state licensure requirements might include, but are not limited to: subject-specific licensure exams, state-specific teacher performance assessments, course work related to state history, basic skills exams, and background clearances. The WGU Student Handbook outlines the credentialing requirements of each state. Teacher candidates should consult the applicable section to become familiar with their state's expectations regarding licensure.

Learning Resources

WGU works with many different educational partners, including enterprises, publishers, training companies, and higher educational institutions, to provide high-quality and effective learning resources that match the competencies you are developing. These vary in type, and may be combined to create the best learning experience for your course. A learning resource can be an e-textbook, online module, study guide, simulation, virtual lab, tutorial, or a combination of these. The cost of most learning resources are included in your tuition and Learning Resource Fee. They can be accessed or enrolled for through your courses. Some degree-specific resources are not covered by your tuition, and you will need to cover those costs separately. WGU also provides a robust library to help you obtain additional learning ¦^•[˘¦&^•ÈÅæ•Å}^^å^åÈÅ

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The following article provides additional details about the current state of mobile compatibility for learning resources at WGU.

[Student Handbook article: Can I use my mobile device for learning resources?](#)

Standard Path

As previously mentioned, competency units (CUs) have been assigned to each course in order to measure your academic progress. If you are an undergraduate student, you will be expected to enroll in a minimum of 12 competency units each term. Graduate students are expected to enroll in a minimum of 8 competency units each term. A standard plan for a student for this program who entered WGU without

any transfer units would look similar to the one on the following page. Your personal progress can be faster, but your pace will be determined by the extent of your transfer units, your time commitment, and

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Standard Path *for* Master of Arts in Teaching, Mathematics Education (Middle Grades)

Course Description	CUs	Term
Schools as Communities of Care	2	1
Foundations of Education	2	1
Educational Psychology and Human Development of Children and Adolescents	4	1
Mathematics History and Technology	2	2
Essential Practices for Supporting Diverse Learners	3	2
Creating and Managing Engaging Learning Environments	2	2
Curriculum, Instruction, and Assessment	2	2
Assessing Student Learning	2	3
Using Educational Technology for Teaching and Learning	2	3
Algebra for Secondary Mathematics Teaching	2	3
Secondary Reading Instruction and Interventions	2	3
Secondary Disciplinary Literacy	2	4
Mathematics Learning and Teaching	2	4
Teaching in the Middle School	2	4
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Areas of Study for **Master of Arts in Teaching, Mathematics Education (Middle Grades)**

The following section includes the areas of study in the program, with their associated courses. Your specific learning resources and level of instructional support will vary based on the individual competencies you bring to the program and your confidence in developing the knowledge, skills, and abilities required in each area of the degree. The Degree Plan and learning resources are dynamic, so you need to review your Degree Plan and seek the advice of your mentor regarding the resources before you purchase them.

The graduate examines the impact of standards-based curriculum on students and teachers to determine how it supports a school's goals.

The graduate evaluates the application of educational best practices in diverse learning settings to inform teaching practice.

The graduate explores pathways and opportunities for professional development to grow as an educator.

Essential Practices for Supporting Diverse Learners

Fundamentals of Diverse Learners is a key component of WGU's Professional Core and is a required course for all initial licensure candidates. This course prepares candidates to consider and address the wide range of learning needs in the classrooms of today. This course teaches candidates to identify and support the needs of diverse populations of learners, including, for example, students with disabilities (Including Dyslexia), students who are English language learners, and students who are gifted and talented. Practical strategies for differentiating instruction while creating a safe, inclusive, and culturally responsive learning environment are explored. This course helps candidates develop skills for partnering with parents and advocating for all students, particularly those impacted by provisions of IDEA and Section 504 of the Rehabilitation Act. Multitiered systems of support are addressed to prepare candidates for their future classrooms as they seek to select appropriate instructional practices and interventions to best serve their students. Candidates will engage in four hours of preclinical experiences that include a simulated teaching experience in which skills learned can be applied. Cross-cutting themes of technology and diversity are interwoven for further development.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate analyzes the application of policies, practices, and legal requirements to inform teaching practice.

The graduate creates inclusive learning environments featuring multitiered systems of supports to address the needs of all students, including exceptional learners and English learners.

The graduate creates learning experiences that accommodate the needs of students with exceptionalities, including gifted and talented students, in order to facilitate the success of all learners.

The graduate integrates equity pedagogy to address the needs of multicultural learners.

The graduate plans learning experiences that accommodate linguistic diversity to facilitate the success of all learners.

The graduate recommends strategies to engage with students, families, administrators, and other stakeholders in ways that are effective, legal, and ethical.

The graduate analyzes why specific multi-tiered intervention strategies support positive behavior and learning in the classroom.

Creating and Managing Engaging Learning Environments

Creating and Managing Engaging Learning Environments is a key component of WGU's Professional Core and is a required course for all Master of Arts in Teaching candidates. This course provides candidates with research-based strategies and approaches to establishing and maintaining a safe and productive learning environment that supports the success and well-being of all P-12 learners. Topics addressed include consistent routines and expectations, student engagement, positive behavior support, motivation and its effect on student achievement, active learning and self-direction, and fostering a sense of community through collaboration. Candidates will design a classroom management plan idatd2aID 28.7975rTd(Tommu6ora/T1_0 Bkse

The graduate analyzes the theoretical foundations and application of classroom management strategies, including behavior support and conflict management, to inform teaching practice.

The graduate recommends strategies that are motivating and encourage active engagement from all students.

The graduate applies evidence-based strategies within their content area to motivate and engage students.

Curriculum, Instruction, and Assessment

Curriculum, Instruction, & Assessment is a key component of WGU's Professional Core and is a required course for all Master of Arts in Teaching candidates. This course provides candidates with theoretical foundations and strategies for creating engaging and standards-aligned lessons that meet the needs of all learners in the P-12 classroom. This course focuses on the interrelationship between curriculum, instruction, and assessment, with emphasis on the role of assessment and student data in planning, designing, delivering, and modifying instruction in accordance with diverse learner needs. This course will culminate in the application of evidence-based strategies related to the interdependence of and alignment among curriculum, instruction, and assessment in student-centered P-12 teaching and learning. Candidates will engage in three hours of preclinical experiences, which include conducting virtual classroom observations and recording a short teaching segment. Cross-cutting themes of technology and diversity are interwoven for continued development.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate aligns lessons to learning goals by synthesizing knowledge about students and their assessment data.

The graduate analyzes the role of various assessment types in evaluating student learning and planning future instruction.

The graduate implements evidence-based instructional strategies to increase content area learning.

The graduate differentiates instruction to facilitate mastery for all learners.

The graduate incorporates cross-disciplinary instruction, skills, and content into lessons.

The graduate creates standards-based instructional plans based on their state's P–12 standards that incorporate knowledge of learners' developmental needs, prior learning, and community and cultural context.

The graduate analyzes the alignment of curriculum, instruction, and assessment to improve instruction and support learning for all students.

Assessing Student Learning

Assessing Student Learning is a key component of WGU's Professional Core and is a required course for all Master of Arts in Teaching candidates. This course provides candidates with methods and best practices for using assessment to monitor student progress and to evaluate the effectiveness of instruction. This course focuses on implementing a balanced approach to assessment using multiple assessment types such as formative, summative, standardized, and common assessments. Also covered are data literacy skills for interpreting and analyzing individual learner and classroom data to improve instruction and support academic success for all learners. The course will culminate in evidence-based, practical application of strategies for assessment practices in P-12 schools. Candidates will engage in three hours of preclinical experiences that include virtual classroom observations. Cross-cutting themes of technology and diversity are interwoven for further development.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate plans a progress-monitoring strategy, including formative, summative, and common assessments, that actively engages students in their own learning.

The graduate analyzes assessment results to evaluate student learning and teacher effectiveness.

The graduate makes evidence-based instructional decisions that are informed by student assessment data.

The graduate determines their impact on learners and the broader school community through evaluation of teaching practice.

The graduate evaluates assessment practices to assess students in a valid, reliable, non-biased, and accessible manner.

Using Educational Technology for Teaching and Learning

organization; and the differences between elementary, middle, and secondary schools. The course also examines the unique needs of middle school students and teaching methods used to meet the needs of these learners. This course has no prerequisites.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate examines the evolution of school structures, theory, and educational philosophy to understand how the middle school environment is different from the elementary, junior high, and high school environments.

The graduate evaluates various models of middle school organization to determine how each meets the developmental needs of early adolescents.

The graduate analyzes supportive age-appropriate best teaching practices that move middle school students toward independence and prepare them to be successful lifelong learners.

Mathematics Education

Mathematics History and Technology

In Math History and Teaching, students will learn about a variety of technological tools for doing mathematics and develop a broad understanding of the historical development of mathematics. Mathematics is a very human subject that comes from the macro-level sweep of cultural and societal change as well as the micro-level actions of individuals with personal, professional, and philosophical motivations. This course will focus on the historical development of mathematics, including contributions of significant figures and diverse cultures. Students will learn to evaluate and apply technological tools and historical information to create an enriching student-centered mathematical learning environment.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate analyzes major historical developments and cultural contributions in number systems, algebra, geometry, calculus, discrete mathematics, statistics and probability, and measurement.

The graduate analyzes the historical development of methods in mathematics.

The graduate analyzes the humanistic, social, and political influences on mathematical discoveries and the applications and effect of those discoveries.

The graduate evaluates technological tools for appropriate use in a variety of situations.

The graduate utilizes appropriate industry-standard technological tools to solve problems.

The graduate integrates student-centered technology in the planning of learning activities to build understanding of mathematical concepts and promote creativity.

The graduate integrates mathematics history into the planning of learning activities to improve student learning.

Algebra for Secondary Mathematics Teaching

Algebra for Secondary Mathematics Teaching explores important conceptual underpinnings, common misconceptions and students' ways of thinking, appropriate use of technology, and instructional practices to support and assess the learning of algebra. Secondary teachers should have an understanding of the following: algebra as an extension of number, operation, and quantity; various ideas of equivalence as it pertains to algebraic structures; patterns of change as covariation between quantities; connections between representations (tables, graphs, equations, geometric models, context); and the historical development of content and perspectives from diverse cultures. In particular, the course focuses on deeper understanding of rational numbers, ratios and proportions, meaning and use of variables, functions (e.g., exponential, logarithmic, polynomials, rational, quadratic), and inverses. Calculus I is a prerequisite for this course.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate analyzes historical development, perspectives from diverse cultures, and content knowledge to deepen a student's algebraic understanding.

The graduate integrates instructional practices to support and assess students' understanding of algebra.

The graduate integrates technology to support and assess students' learning of algebra.

The graduate analyzes conceptual algebra underpinnings, common misconceptions, and students' ways of thinking to create opportunities to learn.

Mathematics Learning and Teaching

Mathematics Learning and Teaching will help students develop the knowledge and skills necessary to become a prospective and practicing educator. This course will help students use a variety of instructional strategies to effectively facilitate the learning of mathematics. It focuses on selecting appropriate resources, using multiple strategies, and instructional planning, with methods based on research and problem solving. A deep understanding of the knowledge, skills, and disposition of mathematics pedagogy is necessary to become an effective secondary mathematics educator. There are no prerequisites for this course.

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate integrates principles and models of teaching for understanding into learning activities.

The graduate integrates problem solving into learning activities to build conceptual understanding.

The graduate evaluates teaching tools and strategies for the purpose of planning learning activities.

The graduate evaluates learning activities for alignment with the National Council of Teachers of Mathematics (NCTM) standards.

The graduate incorporates standards and best practices for the teaching and learning of mathematics for all students into instructional practice.

The graduate uses multiple assessment strategies to evaluate student understanding and guide instruction.

The graduate accommodates the needs and abilities of diverse students in the planning of learning activities.

Effective Teaching Practices

Secondary Reading Instruction and Interventions

Secondary Reading Instruction and Intervention explores the comprehensive, student-centered Response to Intervention (RTI) assessment and intervention model used to identify and address the needs of learners in middle school and high school who struggle with reading comprehension and/or information retention. Course content provides educators with effective strategies designed to scaffold instruction and help learners develop increased skill in the following areas: reading,

This course covers the following competencies:

Begin your course by discussing your course planning tool report with your instructor and creating your personalized course plan together.

The graduate distinguishes between the basic strategies used to facilitate comprehension in the content areas and the specialized reading practices needed to comprehend text in a specific discipline.

The graduate integrates discipline-specific literacy instruction to help students understand the text structures, vocabulary, and language knowledge required for specific disciplines.

The graduate plans writing activities that promote understanding of discipline-specific content through the organization, analysis, and synthesis of ideas.

The graduate creates authentic learning tasks and activities that provide students with opportunities to demonstrate discipline specific understandings.

The graduate integrates instructional strategies and materials in disciplinary literacy practices to enhance student understanding within the disciplines.

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Student Teaching II in Secondary Education

Student Teaching II in Secondary Education is the second of two culminating experiences and is a required course for all initial licensure candidates. Student Teaching II is a supervised classroom-based activity in an authentic setting, which enables the candidate to demonstrate professional dispositions and ethics while collaborating with a practicing teacher and applying instructional strategies using co-teaching models. The candidate assumes increasing responsibilities while developing the skills and confidence necessary to be an effective teacher. Each candidate receives formative feedback through observations and a final evaluation on the relevance of required activities, how culturally engaging the activities are, and how successful each candidate is in teaching each student. Each candidate is also evaluated on the ability to think about, analyze, and modify classroom actions as needed, and on a willingness to take risks and experiment with materials and methods that may be new or that may challenge your cultural knowledge. The final evaluation in Student Teaching II is the determining factor in applying for licensure as a professional educator.

This course covers the following competencies:

The learner engages in a continual improvement process in order to advance learner outcomes and personal professional practice.

The learner plans content-based instruction that supports student learning objectives.

The learner integrates instructional strategies to address the needs of all students and meet the learning goals and objectives.

The learner assesses student learning tomonitor progress, engage learners in their own growth, and guide decision-making.

Demonstration Teaching

Teacher Performance Assessment in Mathematics Education

The Teacher Performance Assessment course is a culmination of the wide variety of skills learned during your time in the Teachers College at WGU. In order to be a competent and independent classroom teacher, you will showcase a collection [-Á^ [˘¦Á&[}c^}cÈÁ]|æ}}â} *ÊÁâ}•c¦˘&cã[}æ|ÊÁæ}åÁ¦^-|^&cáç^Á•\â||•ÈÁÁ
This course is eligible for an In Progress grade. Please see the Grading Scale Policy for more information.

This course covers the following competencies:

The graduate evaluates the teaching context to accommodate student differences to plan for instruction and assessment.

The graduate plans learning environments that support individual learning, collaboration, and positive social interaction.

The graduate plans comprehensive learning segments of instruction and assessment that align with standards and the needs of students.

The graduate applies instructional strategies that promote learning, engage students, and provide differentiated instruction.

The graduate integrates strategies to develop academic language that facilitates effective student participation and engagement in learning.

The graduate utilizes assessment data to profile student learning, communicate information about student progress and achievement, and guide and modify instruction.

The graduate evaluates teaching experiences including the planning and implementing of curriculum and instruction through ongoing reflection.

Professional Portfolio

Professional Portfolio requires candidates to create an online teaching portfolio that demonstrates professional beliefs, growth, and effective teaching practices from the Demonstration Teaching experience. The portfolio includes reflective essays (educational beliefs, professional growth, and collaboration with stakeholders) and professional artifacts (resume and artifacts with commentary on academic language, systems of student support, education technology, and professional &[{ { ˘}â&æcã[}Á¸âc@Á-æ { â|â^•DÁâ^ç^|[]^åÁæ}åÁæ&˘˘â¦^åÁå˘¦â} *ÁÖ^ { [}•c¦æcã[}ÁV^æ&@â} *ÈÁÁ
This course is eligible for an In Progress grade. Please see the Grading Scale Policy for more information.

This course covers the following competencies:

The graduate recommends improvements for instruction and professional practice through personal reflection.

The graduate integrates technology into classroom learning experiences to enhance student learning and monitor

academic progress.

The graduate demonstrates ethical responsibilities and appropriate teaching dispositions, including those outlined in the Western Governors University Teachers College Code of Ethics.

The graduate recommends strategies that support the development of academic language for all students.

The graduate integrates a variety of strategies and resources to differentiate instruction and meet the needs of diverse learners.

The graduate develops appropriate plans for professional growth in subject matter knowledge and pedagogical skills, including habits and skills of continual inquiry and learning.

Cohort Seminar

Cohort Seminar provides mentoring and supports teacher candidates during their demonstration teaching period by providing weekly collaboration and instruction related to the demonstration teaching experience. It facilitates their demonstration of competence in becoming reflective practitioners, adhering to ethical standards, practicing inclusion in a diverse classroom, exploring community resources, building collegial and collaborative relationships with teachers, and &[}•âå^¦â}*Å|^æå^¦•@â]Åæ}åÅ•˘]^¦çâ•[¦^Å•\â||•ÈÁÁ

This course is eligible for an In Progress grade. Please see the Grading Scale Policy for more information.

This course covers the following competencies:

The graduate demonstrates the ability to positively impact student learning through work samples, student artifacts, assessment results, and reflection.

The graduate recommends improvements for instruction and professional practice through personal reflection.

The graduate demonstrates ethical responsibilities and appropriate teaching dispositions, including those outlined in the Western Governors University Teachers College Code of Ethics.

The graduate recommends strategies for effectively collaborating with colleagues, parents, and community professionals to support student development, learning, and well being.

The graduate selects community resources that support students' non-instructional needs in and out of the classroom.

The graduate recommends strategies that support the development of academic language for all students.

The graduate integrates a variety of strategies and resources to differentiate instruction and meet the needs of diverse learners.

The graduate recommends effective strategies to maintain high levels of student engagement.

The graduate recommends best practices for classroom management, effective transitions, and pacing to maximize instructional time.

The graduate develops appropriate plans for professional growth in subject matter knowledge and pedagogical skills, including habits and skills of continual inquiry and learning.