

BACHELOR OF SCIENCE IN EDUCATION IN MIDDLE CHILDHOOD EDUCATION (4-9), MATHEMATICS-SCIENCE CONCENTRATION

Program Coordinator

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OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education and Leadership Studies offers a four-year Middle Childhood Education Program (grades 4-9), Math and Science Concentration, approved by the Ohio Department of Education. The Middle Childhood Math and Science License (Grades 4-9), Bachelor of Science in Education degree requires a minimum of 136 semester hours of course work. This teaching field also requires passage of the Ohio Assessments for Educators in order to be eligible to student teach.

EMPLOYMENT OPPORTUNITIES

Graduates of the Middle Childhood Program will be qualified to teach Math and Science in the grades 4-9 Math and/or Science classroom. Additional opportunities may be available in the private sector to tutor students. It is recommended that students in this major consider adding the Middle Childhood Generalist Endorsement to increase marketability.

Professional Dispositions

Teacher candidates are expected to display the following professional dispositions:

- Creating fairness in the classroom
- Providing an inclusive environment that is safe and conducive to learning
- Demonstrating the belief that all students can learn
- Fostering collaborative relationships to support student learning and well-being
- Exhibiting professional skills

FIELD EXPERIENCES AND STUDENT TEACHING

Students complete a number of field experiences to support the learning of content and best practices of teaching. Field experiences offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Preclinical Field Experiences

The preclinical experience is conducted in local schools and provides an opportunity for teacher candidates to complete an in-depth field experience prior to student teaching. This field experience requires a substantial time commitment, as teacher candidates spend the entire day in schools during designated weeks. The Middle Childhood preclinical experience is scheduled during the fall semester. Applications for the preclinical experience must be submitted on TaskStream one year in advance by September 1st.

- TEMC 4804 Middle Level Instructional Design and Student Outcomes
- TEMC 4801 The Middle School Learning Community
- TEMC 3704 Teaching Mathematics in the Middle School
- TEMC 3705 The Teaching of Science in the Middle School

Student Teaching

Students complete a 16 week student teaching experience. Students must pass the edTPA performance-based assessment with a minimum score of 39 during this experience.

- TEMC 4803 Student Teaching Seminar for Middle Childhood Education
- TEMC 4802 Student Teaching: Middle Childhood

ADVISEMENT

Advisement is provided by the Academic Advisors in Education. Majors in this program must complete general education requirements, subject area curriculum requirements, reading course requirements, and professional education requirements. Prior to student teaching, all middle childhood majors must complete a preclinical experience.

REQUIRED ASSESSMENTS

The Ohio Assessments for Educators (OAE) assesses the content area and professional (pedagogical) knowledge of candidates who are seeking initial Ohio educator license or adding a new license area. The assessments are aligned with Ohio's New Learning Standards. Teacher candidates must pass these exams prior to student teaching.

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

090 Foundations of Reading

ENDORSEMENTS

The following endorsements are available to individuals holding this teaching license and may increase marketability: K-12 TESOL Endorsement, K-12 Reading Endorsement, Middle Childhood Generalist Endorsement (enables teaching in content areas not included in current course of study).

COURSE	TITLE	S.H.
FIRST YEAR REQUIREMENT -STUDENT SUCCESS		
YSU 1500	Success Seminar	1-2
or SS 1500	Strong Start Success Seminar	
or HONR 1500	Intro to Honors	
General Education Requirements		
ENGL 1550	Writing 1 (requires a B average)	3-4
or ENGL 1549	Writing 1 with Support	
ENGL 1551	Writing 2 (requires a B average)	3
CMST 1545	Communication Foundations	3
MATH 2665	Foundations of Middle School Mathematics 2	4
Some courses are categorized in more than one knowledge domain. Courses can only be used once within the General Education model. Some majors prescribe specific GE courses. If a course has been added to the domains, it is required.		
Arts and Humanities		6
Natural Sciences (2 courses, 1 lab) ^{Met with courses in Science concentration}		
PSYC 1560	General Psychology	3
Social Science GER		3
Social and Personal Awareness		6
Major Requirements -Mathematics Concentration		
MATH 1564	Foundations of Middle School Mathematics 1	4
MATH 2665	Foundations of Middle School Mathematics 2	4
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
MATH 4870	Mathematics Concepts for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
Science Concentration		

BIOL 1505	Biology and the Modern World	3
CHEM 1500	Chemistry in Modern Living	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
GEOL 2605	Historical Geology	4
PHYS 2607	Physical Science for Middle and Secondary Education	4
ASTR 1504	Descriptive Astronomy	3
ENST 2600	Foundations of Environmental Science	3
ENST 2600L	Foundations of Environmental Science Laboratory	1
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
TEMC 3707	Science/Technology/Society ^{1,2}	3
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society ¹	3
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools ^{1,2}	3
Reading Course Requirement		
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
TERG 3700	Phonological Awareness and Phonics	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
TERG 3730	Reading Assessment, Instruction, and Intervention	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community ²	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 4804	Middle Level Instructional Design and Student Outcomes ²	3
TEMC 3704	Teaching Mathematics in the Middle School ²	3
TEMC 3705	The Teaching of Science in the Middle School ²	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood ²	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education ²	2
TCED 5888E	Seminar edTPA Review	1
Total Semester Hours		143-145

¹ Prerequisites for preclinical curriculum.

² Upper division course.

General Information

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the TELS Teacher Education Programs or candidacy for a teaching license.
- A grade of “C” or better is required in all courses. Some courses cannot be taken CR/NC. Check with an Advisor. Professional education and preclinical courses may only be repeated one time.

Upper Division

- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in TELS.**
- Upper division requirements:

- ____ Completion of 50 SH
- ____ Minimum 2.75 overall GPA
- ____ “B” average or better (A-C, B-B) for: ENGL 1550 and ENGL 1551.
 - If failure to meet “B” average above must also complete:
 - ____ ENGL 2601 grade of “B” or better.
 - **If you receive a “C” or below you will need to retake the course.**
- ____ “B” average or better (B-B-B, A-B-C) across the following:
 - ____ EDFN 1501 ____ CMST 1545
 - ____ SPED 2630 ____ MATH 1564 or BIOL 1505
- After completing a minimum of 50 SH, submit the following:
 - Upper Division application (Portal)
 - Good Moral Character Statement
 - Copy of BCI & FBI clearances
 - Writing prompt (Blackboard)
- Deadlines for submission for upper division status (**late applications may not be accepted**):
 - **September 1**—to register for Upper Division Courses for Spring
 - **February 1**—to register for Upper Division courses for Summer & Fall

Admission to Preclinical and Evaluation for Graduation

- Request must be submitted to TaskStream **one year prior to the intended preclinical semester no later than:**
- **September 1**—for Fall preclinical (**Late applications may not be accepted**)
- **February 1**—for Spring preclinical (**Late applications may not be accepted**)
- Content GPA (2.67 minimum), Professional GPA (2.67 minimum), Overall GPA (2.75 minimum).

Student Teaching

- Student teaching application must be submitted following instructions found on the portal.
- **Late applications will likely result in a delay to student teaching by one semester. Application and forms are due to the Office of Student Field Experience:**
 - September 1—to Student Teach the following Spring Semester
 - February 1—to Student Teach the following Fall Semester
- **Prerequisites:**
 - BCOE Upper Division status
 - Overall 2.75 GPA
 - Minimum of 2.67 GPA in subject area curriculum and 2.67 in professional education courses with no grade less than a “C”
 - Passage of OAE test(s) and ACTFL tests for foreign language

Completing a Bachelor of Science in Education with Licensure

- **Successful completion of student teaching (endorsed) with CPAST average score of 2 with no zeros**
- **Minimum score of 39 on edTPA, with the exception of a 34 for Foreign Language**

Completing a Bachelor of Science in Education without Licensure

- A teacher candidate may choose to graduate without licensure. Teacher candidates who wish to graduate without licensure must take TCED 4830 (3 SH) capstone course in place of student teaching.

Year 1

Fall		S.H.
YSU 1500	Success Seminar	1-2
ENGL 1550	Writing 1	3

MATH 1564	Foundations of Middle School Mathematics 1	4
PSYC 1560	General Psychology	3
GEOL 1505 & 1505L	Physical Geology and Physical Geology Laboratory	4
TCED 2600	Becoming an Education Professional	1
TCED 2601	Diversity and Equity in the Classroom	1
Semester Hours		17-18
Year 2		
Fall		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
ENST 2600	Foundations of Environmental Science	3
ENST 2600L	Foundations of Environmental Science Laboratory	1
PSYC 3709	Psychology of Education	3
CMST 1545	Communication Foundations	3
TERG 2605	Reading Foundational Skills Across Content Areas Pre-K – 12	3
Semester Hours		17
Spring		
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4
PHYS 2607	Physical Science for Middle and Secondary Education	4
GEOG 2630	Weather	3
GEOG 2630L	Weather Lab	1
TERG 3700	Phonological Awareness and Phonics	3
Social Science GER		3
Arts and Humanities GER		3
Semester Hours		21
Year 3		
Fall		
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
ASTR 1504	Descriptive Astronomy	3
TERG 3720	Developmental Reading Instruction: Vocabulary, Comprehension, and Writing	3
Arts and Humanities GER		3
Social and Personal Awareness GER		3
Semester Hours		18
Spring		
MATH 4870	Mathematics Concepts for Middle School Teachers	3
TEMC 3707	Science/Technology/Society	3
GEOL 2605	Historical Geology	4
TEMC 3702	Teaching & Learning in Middle Schools	3

TERG 3730	Reading Assessment, Instruction, and Intervention	3
Social and Personal Awareness GER		3
Semester Hours		19
Year 4		
Fall		
TEMC 4801	The Middle School Learning Community	3
TCED 4800L	Laboratory Experience for Teaching All Learners	0
TEMC 3704	Teaching Mathematics in the Middle School	3
TEMC 3705	The Teaching of Science in the Middle School	3
TEMC 4804	Middle Level Instructional Design and Student Outcomes	3
EDFN 3708	Education and Society	3
Semester Hours		15
Spring		
TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
TCED 5888E	Seminar edTPA Review	1
Semester Hours		13
Total Semester Hours		139-140

Learning Outcomes

The following learning outcomes are based on The Ohio Standards for the Teaching Profession. These standards were developed for use as a guide for teachers as they continually reflect upon and improve their effectiveness as educators throughout all of the stages of their careers. These standards serve as an important tool for teachers as they consider their growth and development in the profession. These standards in developing and content of our teacher education programs. They are interrelated and connect in teachers' practice.

- Teachers understand student learning and development and respect the diversity of the students they teach.
- Teachers know and understand the content area for which they have instructional responsibility.
- Teachers understand and use varied assessments to inform instruction, evaluate and ensure student learning.
- Teachers plan and deliver effective instruction that advances the learning of each individual student.
- Teachers create learning environments that promote high levels of learning and achievement for all students.
- Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.
- Teachers collaborate and communicate with students, parents, other educators, administrators and the community to support student learning. Teachers assume responsibility for professional growth, performance and involvement as an individual and as a member of a learning community.

The learning outcomes for this program, align with the 5 Standards of the Association for Middle Level Education (AMLE):

- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to young adolescent development and use that knowledge in their practice. They demonstrate their ability to apply this knowledge when making curricular decisions, planning and implementing instruction, participating in middle level programs and practices, and providing healthy and effective learning environments for all young adolescents.
- Middle level teacher candidates understand and use the central concepts, standards, research, and structures of content to plan and implement

curriculum that develops all young adolescents' competence in subject matter. They use their knowledge and available resources to design, implement, and evaluate challenging, developmentally responsive curriculum that results in meaningful learning outcomes. Middle level teacher candidates demonstrate their ability to assist all young adolescents in understanding the interdisciplinary nature of knowledge.

They design and teach curriculum that is responsive to all young adolescents' local, national, and international histories, language/dialects, and individual identities (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).

- Middle level teacher candidates understand the major concepts, principles, theories, and research underlying the philosophical foundations of developmentally responsive middle level programs and schools, and they work successfully within middle level organizational components.
- Middle level teacher candidates understand, use, and reflect on the major concepts, principles, theories, and research related to data-informed instruction and assessment. They employ a variety of developmentally appropriate instructional strategies, information literacy skills, and technologies to meet the learning needs of all young adolescents (e.g., race, ethnicity, culture, age, appearance, ability, sexual orientation, socioeconomic status, family composition).
- Middle level teacher candidates understand their complex roles as teachers of young adolescents. They engage in practices and behaviors that develop their competence as middle level professionals. They are informed advocates for young adolescents and middle level education, and work successfully with colleagues, families, community agencies, and community members. Middle level teacher candidates demonstrate positive dispositions and engage in ethical professional behaviors.