

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

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## OVERVIEW

In cooperation with various academic discipline departments in the University, the Department of Teacher Education 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 in the grades 4-9 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:

In addition to the above learning outcomes, 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 over 150 hours of preclinical experiences in ad Field experiences are included in the following courses and offer opportunities to provide varying levels of classroom support (observing, one-on-one tutoring, small group teaching, co-teaching, whole class teaching).

Field Experiences

- EDFN 1501 Introduction to Education
- EDFN 3708 Education and Society
- SPED 2630 Individuals with Exceptionalities in Society
- TERG 3701 Phonics in Reading Instruction
- TERG 3702 Developmental Reading Instruction
- TERG 3703 Assessment and Instruction in Reading
- TERG 2610 Reading Application in Content Areas Middle Years

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 (1) one year in advance to BCOE Room 2101, by September 1 for the preclinical experience. Contact the Beeghly College of Education, academic advisors for minimum preclinical prerequisites.

- TEMC 3702 Teaching & Learning in Middle Schools
- TEMC 4801 The Middle School Learning Community
- TEMC 3703 Thematic Instruction and Assessment Methods in Social Studies

And

- TEMC 3704 Teaching Mathematics in the Middle School

Or

- TEMC 3705 The Teaching of Science in the Middle School

Or

- TEMC 3706 Teaching Language Arts 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 37 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 the Beeghly College of 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 adolescent/young adult majors must complete a preclinical experience.

## REQUIRED ASSESSMENTS

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

002 Assessment of Professional Knowledge (All MCE Candidates)

028 Middle Grades English Language Arts (for those with English Language Arts concentration)

030 Middle Grades Mathematics (for those with Mathematics concentration)

029 Middle Grades Science (for those with Science concentration)

031 Middle Grades Social Studies (for those with Social Studies 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.
<b>General Education Requirements</b>		
Core Competencies		12
ENGL 1550	Writing 1 (requires a B average)	
ENGL 1551	Writing 2 (requires a B average)	

CMST 1545	Communication Foundations	
MATH 2623	Quantitative Reasoning	
OR		
MATH 2652	Mathematics for Early Childhood Teachers 2 (Preferred course if required to take Math Praxis Core)	
OR		
MATH 2665	Foundations of Middle School Mathematics 2 (Mathematics Concentration takes this one)	
General Education Knowledge Domains		
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)		7
Social Science		6
PSYC 1560	General Psychology	
Social Science GER		
Social and Personal Awareness		6
General Education Elective		3
TCED 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	
<b>Mathematics Concentration</b>		
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 Seminar for Middle School Teachers	2
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 Studies	3
ENST 2600L	Foundations of Environmental Studies Laboratory	1
GEOG 2630	Weather	3
TEMC 3707	Science/Technology/Society <sup>1,2</sup>	3
Professional Education Curriculum		
EDFN 1501	Introduction to Education	3
PSYC 3709	Psychology of Education	3
SPED 2630	Individuals with Exceptionalities in Society <sup>1</sup>	3
EDFN 3708	Education and Society	3
TEMC 3702	Teaching & Learning in Middle Schools <sup>1,2</sup>	3
Reading Course Requirement		
TERG 3701	Phonics in Reading Instruction	3
TERG 2610	Reading Application in Content Areas Middle Years	3
TERG 3702	Developmental Reading Instruction <sup>1</sup>	3
TERG 3703	Assessment and Instruction in Reading <sup>2</sup>	3
Preclinical Curriculum		
TEMC 4801	The Middle School Learning Community <sup>2</sup>	3

TEMC 4804	Middle Level Instructional Design and Student Outcomes <sup>2</sup>	3
TEMC 3704	Teaching Mathematics in the Middle School <sup>2</sup>	3
TEMC 3705	The Teaching of Science in the Middle School <sup>2</sup>	3
Student Teaching Curriculum		
TEMC 4802	Student Teaching: Middle Childhood <sup>2</sup>	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education <sup>2</sup>	2

Total Hours Required for the Degree: 136 s.h.

<sup>1</sup> Prerequisites for preclinical curriculum.

<sup>2</sup> Upper division course.

BCOE Notes:

**Advisement:**

- It is highly recommended that all teacher candidates meet with an academic advisor every semester.
- Freshmen, athletes, and students on warning and probation are required to meet with an advisor before registration.
- At the completion of 30 SH any teacher candidate who: 1) was required to and has not passed PRAXIS Core Exam(s), or 2) holds a GPA of 2.25 or below will be referred to Central Advising for advising and career services. If at a later date the teacher candidate passes all required parts of the Praxis Core Exam and attains a GPA of 2.25 or higher that student may return to BCOE for advising.

**Important Notes:**

- Neither admission to the University nor declaration of a major related to a teaching field guarantees admission to the BCOE's Teacher Education Programs or candidacy for a teaching license.
- **Formal Admission to Teacher Education (Upper-Division) is required before teacher candidates are allowed to enroll in certain junior and senior level courses in BCOE.**
- Undetermined education majors must declare a major before applying for admission to a Teacher Education Program.
- Admission to a Teacher Education Program is obtained upon satisfactory completion of the following requirements:

\_\_\_\_ Minimum completion of 50 SH

\_\_\_\_ Minimum 2.75 overall GPA

- Meet one of the following criteria:

\_\_\_\_ Overall GPA 3.4 or better, **OR**

\_\_\_\_ ACT scores of Reading-21, English-18, Math-22, **AND/OR**

\_\_\_\_ SAT scores of Reading-450, Writing-430, Math-520, **AND/OR**

\_\_\_\_ Praxis CORE scores, Reading-156, Writing-162, Math-150

(Attach a copy of your CORE scores to the application)

- "B" average or better (A-C, B-B) for:

\_\_\_\_ ENGL 1550 \_\_\_\_ 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 \_\_\_\_ ENGL 2651 or MATH 1564 or HIST 2606/1511 or BIOL 1505

If student does not have a “B” average, student will be required to **retake one or more of these courses until the “B” average is achieved.**

- A grade of “C” or better is required in all required major courses. Courses taken as “CR/NC” will not count towards the major
- Professional education and block courses may only be repeated **one** time.
- Minimum requirements for teaching licenses are determined by the Ohio Department of Education; if those requirements change, they become effective immediately at Youngstown State University. (YSU Undergraduate Catalog).

**Upper-Division Application Process**

- Upper division application and forms must be printed from the BCOE website.
- After completing a minimum of 50 SH, submit the following:
  - Upper Division application
  - Good Moral Character Statement
  - copy of BCI & FBI clearances
  - schedule an upper division interview with the BCOE Office of Student Services, room 2101, no later than:
- Upper Division Application Deadline
  - **September 1**—to register for Upper Division Courses for Spring
  - **February 1**—to register for Upper Division courses for Summer & Fall
- Each completed application is reviewed and approved by the Upper Division Admission and Retention Committee. If all requirements are met, the teacher candidate may register for Upper Division courses for the following semester. Upper Division courses are the courses designated with the “+” symbol. Applications submitted after the deadline will not be processed until the end of the respective semester.

**Program Notes:**

- If Math concentration is chosen, Math GER is not required. If Science concentration is chosen, Natural Science GER is fulfilled through subject area curriculum. If Language Arts concentration is chosen, Arts & Humanities GER is fulfilled through subject area curriculum. If Social Studies concentration is chosen, Social Sciences GER is fulfilled through subject area curriculum.
- Candidates will not be permitted to take the following professional education courses more than twice: EDFN 1501, EDFN 3708, PSYC 3709, SPED 2630, TERG 2601, 3701, 3702, 3703, 2610, 3711, TEMC 4802, SED 4800, ECIS 2629, ECIS 3700, all preclinical experience courses, student teaching, and student teaching seminar.
- If the program is concerned regarding teacher candidate performance in the preclinical experience, as determined by CPAST criteria, the program coordinator may require the teacher candidate to complete an additional preclinical experience prior to the student teaching experience.

**Preclinical Application with Request for Graduation Evaluation**

- Preclinical application is completed on TaskStream. Directions are available on the BCOE website.
- Preclinical application and graduation evaluation request must be submitted one year prior to the intended preclinical semester no later than:
  - **September 1**—for Fall preclinical
  - **February 1**—for Spring preclinical
- Preclinical candidates are screened for eligibility based on GPA and course completion.

**Student Teaching:**

- Prerequisites:
  - BCOE Upper Division and Senior status,
  - Overall 2.75 GPA
  - Minimum of 2.67 GPA in subject area curriculum and professional education courses with no grade less than a “C” (each computed individually),
  - Passage of OAE test(s) and ACTFL tests for foreign language.
- Instructions for completing the Student Teaching Application and Forms are available on BCOE website. The application and forms must be completed and printed from the BCOE website and submitted to the BCOE Office of Student Services no later than:
  - September 1—to Student Teach the following Spring Semester
  - February 1—to Student Teach the following Fall Semester

**Graduation Process:**

- Apply for graduation during the first three weeks of the semester you plan to graduate. Graduation evaluation must be completed in advance of application for graduation.

**Completing a Bachelor of Science in Education without Licensure:**

- Teacher candidates who choose to graduate without licensure must apply for approval in the BCOE Office of Student Services.
- Once approved, teacher candidates graduating without licensure must take TCED 4830 (3 SH) capstone in place of student teaching.

Course	Title	S.H.
<b>Year 1</b>		
<b>Fall</b>		
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 1500	Introduction to Becoming a Teacher First Year Experience Course BCOE	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
ENGL 1551	Writing 2	3
MATH 2665	Foundations of Middle School Mathematics 2	4
SPED 2630	Individuals with Exceptionalities in Society	3
CHEM 1500	Chemistry in Modern Living	3
EDFN 1501	Introduction to Education	3
BIOL 1505	Biology and the Modern World	3
<b>Semester Hours</b>		<b>19</b>
<b>Year 2</b>		
<b>Fall</b>		
MATH 3767	Algebra/Geometry for Middle School Teachers 1	4
ENST 2600	Foundations of Environmental Studies	3
ENST 2600L	Foundations of Environmental Studies Laboratory	1
PSYC 3709	Psychology of Education	3
TERG 2610	Reading Application in Content Areas Middle Years	3
CMST 1545	Communication Foundations	3
<b>Semester Hours</b>		<b>17</b>
<b>Spring</b>		
MATH 3768	Algebra/Geometry for Middle School Teachers 2	4

PHYS 2607	Physical Science for Middle and Secondary Education	4
GEOG 2630	Weather	3
TERG 3701	Phonics in Reading Instruction	3
Social Science GER		3
Arts and Humanities GER		3
<b>Semester Hours</b>		<b>20</b>
<b>Year 3</b>		
<b>Fall</b>		
MATH 4869	Functions, Calculus, and Applications for Middle School Teachers	3
STAT 2601	Introductory Statistics	3
ASTR 1504	Descriptive Astronomy	3
TERG 3702	Developmental Reading Instruction	3
Arts and Humanities GER		3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Spring</b>		
MATH 4870	Mathematics Seminar for Middle School Teachers	2
TEMC 3707	Science/Technology/Society	3
GEOL 2605	Historical Geology	4
TEMC 3702	Teaching & Learning in Middle Schools	3
TERG 3703	Assessment and Instruction in Reading	3
Social and Personal Awareness GER		3
<b>Semester Hours</b>		<b>18</b>
<b>Year 4</b>		
<b>Fall</b>		
TEMC 4801	The Middle School Learning Community	3
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
<b>Semester Hours</b>		<b>15</b>
<b>Spring</b>		
TEMC 4802	Student Teaching: Middle Childhood	10
TEMC 4803	Student Teaching Seminar for Middle Childhood Education	2
<b>Semester Hours</b>		<b>12</b>
<b>Total Semester Hours</b>		<b>136</b>

- 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.

## 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.