

# Mathematics Education (Grades 6–12)

Master of Arts (M.A.) – Leading to Initial Teaching Certification

### Overview

In an effort to build the teaching profession and provide new opportunities for prospective graduate students, the Department of Teaching, Learning and Teacher Education offers a full-time Master of Arts (M.A.) degree program that will lead to initial teaching certification in Elementary Education, English Education, Mathematics Education, Science Education, Secondary Social Sciences Education, Business, Marketing, and Informational Technology Education, or World Language Education. All programs are campus-based programs.

**Cohort-based.** Graduate students proceed together with peers and world-class faculty creating a community of educators in residential programs.

**Graduate Degree and Certification.** Upon successful completion, students will graduate with a master's degree, be fully certified to teach in Nebraska, be eligible for certification in other states, and be employable for the following school year.

**Who Should Apply?** These programs are designed for qualified graduate students who have earned a bachelor's degree *outside the field of education* and who can commit to an intensive and accelerated pathway to a career in the teaching profession. These programs are not suited for educators who currently have teaching certification in any subject area or former educators seeking to renew certification. For certification renewal, please click here.

**Practicum + Student Teaching.** Students will be placed in the Lincoln Public Schools or Omaha Public Schools for teaching internships in the classroom. Collaborative relations with public schools offer students' field experiences in diverse classrooms, purposefully designed to help connect coursework theory and methods to classroom practice. Students will gradually build proficiency in teaching, adding responsibilities and skills throughout a nine-month period and be prepared to assume 16 weeks of full-time student teaching in Spring.

**Inquiry.** Inquiry infuses all aspects of this graduate program. Students will begin to focus on a curriculum inquiry project that requires the development of classroom research about a problem of practice in teaching and learning, a research project that will form the capstone experience of the program.

**Residency.** Students will be attending class on the UNL campus and gaining practical experience in K-12 schools in and near the Lincoln/Omaha area. During the academic year, the program schedule will follow the school calendar. Students must live within a reasonable traveling distance to the UNL campus and local cooperating schools. Please note that the funding available for our Master of Arts in Science Teaching Program requires applicants to be US citizens.



The Master of Arts leading to initial teaching certification in Mathematics Education (Grades 6-12) offers a pathway to the field of middle and secondary-level teaching for those with a degree in a STEM field.

Required Courses <sup>1 2</sup>	UNL MA courses that may be substituted
MATH 106: Analytic Geometry & Calculus I (5)	
MATH 107: Analytic Geometry & Calculus II (4)	
MATH 208: Analytic Geometry & Calculus III (4)	
MATH 310: Intro to Modern Algebra (3) or	MATH 810T: Algebra for Algebra Teachers (3)
MATH 309: Introduction to Proofs (3)	
MATH 412: Modern Geometry (3)	MATH 812T: Geometry for Geometry Teachers (3)
MATH 314: Applied Linear Algebra (3)	MATH 814T: Linear Algebra for Teachers (3)
MATH 221: Differential Equations (3) or any 400-level	MATH 8XXT (3)
mathematics course (3)	
MATH 460: History of Mathematics (3)	MATH 805T: Discrete Mathematics for Teachers (3)
MATH 4XX: (3)	MATH 8XX (3)
MATH 4XX: (3)	MATH 8XX (3)
STAT 380: Statistics & Applications (3)	STAT 812T: Statistics for Teachers (3)
TEAC 851P: Learning and Teaching Principles and	
Practices in Secondary Mathematics (3)	
TEAC 852P: Curriculum Principles and Practices in	
Secondary Mathematics (3)	
TEAC 861 Education for a Pluralistic Society (3)	
TEAC 813M: Teaching ELLs in the Content Areas (3)	
EDPS 851: Psychology of Adolescence (3)	
SPED 801B Accommodating Exceptional Learners in	
the Secondary Classroom (3)	
TEAC 894P: Practicum in Secondary Schools (3)	
TEAC 897P: 7-week Internship in grades 6-12 (3)	
TEAC 803B: Student Teaching Seminar (3)	
TEAC 800 - Inquiry into Teaching and Learning (3)	
TEAC 801 - Seminar in Curriculum Inquiry (3)	
MATH 8** (3) <sup>3</sup>	
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<sup>1</sup> Note that you must already have 24 credits of mathematics or statistics from the courses listed in order to apply for this program

 $^2\,$  You can find equivalent courses at other Nebraska institutions on the following site: http://admissions.unl.edu/nebraska/equivalency

<sup>3</sup> These mathematics classes are only required for the graduate minor in mathematics or to meet the minimum number of mathematics credits for certification



# Typical Sequence for Required Coursework and Practical Experience

(44 credits)

### **Spring Semester (9 credits)**

TEAC 851P - Learning and Teaching Principles and Practices in Secondary Mathematics

TEAC 861 - Education for a Pluralistic Society: Foundation and Issues

MATH 8<sup>\*\*-</sup> Mathematics Course chosen with advisor (required for the graduate minor in mathematics or to meet the minimum number of mathematics credits for certification)

### Summer Sessions (12 credits)

TEAC 800 - Inquiry into Teaching and Learning

TEAC 813M Teaching ELLs in the Content Areas

SPED 801B - Accommodating Exceptional Learners in the Secondary Classroom

MATH 8\*\*- Mathematics Course chosen with advisor (required for the graduate minor in mathematics or to meet the minimum number of mathematics credits for certification)

### Fall Semester (10 credits)

TEAC 852P - Curriculum Principles and Practices in Secondary Mathematics

TEAC 894P - Integrated Public School Internship: Professional Practicum begins with and follows the public school calendar

EDPS 851 - Psychology of Adolescence

MATH 8\*\*- Mathematics Course chosen with advisor (required for the graduate minor in mathematics or to meet the minimum number of mathematics credits for certification)

### Spring Semester (6 – 9 credits)

TEAC 897P - Student Teaching begins in January and continues until the end of the public school calendar

TEAC 803B - Student Teaching Capstone Seminar

Summer Session (3 – 6 credits)

TEAC 801 - Seminar in Curriculum Inquiry

### **Graduate August**



# Who Should Apply?

You should consider applying if you:

- Have graduated from an accredited college or university with a bachelor's degree with a STEM major or minor.
- Have earned at least 24 credit hours in mathematics course *at the calculus level* and above, with a GPA average of 3.0 in those courses, and that are sufficient to fulfill the requirement for all teachers in the State of Nebraska (see below).
- Have a strong academic background that qualifies you for admission to the TLTE Master of Arts program, including an undergraduate cumulative GPA minimum of 3.0 on a 4.0 scale.
- Have experience working with adolescents in formal or informal settings.
- Can commit to participating fully in the cohort-based, *full-time* academic teacher education program.

# **Program Values**

This program is designed for graduate-level pre-service teachers to learn how to form meaningful and trusting intellectual relationships with students.

Our graduates are distinguished by their capacities for:

- Knowing Theories of Learning and Relationship Roles in Teaching Practice
- Developing Curricular Vision
- Teaching Mathematics
- Teaching Diverse Learners
- Becoming Agents of Change and Reform
- Knowing Teaching in Terms of Its Foundational Dimensions
- Assessing Practices and Professional Judgment
- Structuring Learning Environments
- Growing Professional Knowledge

### **Financial Aid**

**Fellowships.** Departmental scholarships and fellowships are generally reserved for doctoral students in the department. You are invited, however, to submit an application for the Beckmann, Wells, and Woollam fellowships.

**Loan Forgiveness.** When you graduate from the master's program, you are a "highly qualified" mathematics teacher. If you teach full-time for five complete and consecutive academic years in certain "high needs" schools that serve low-income families, you may be eligible for forgiveness of up to a combined total of \$17,500 on your Direct Subsidized and Unsubsidized Loans and your Subsidized and Unsubsidized Federal Stafford Loans. This is more than the cost of tuition and fee for this master's degree. Your 9-month internship will be in a high needs school, and you will be well



prepared to work in one after graduation. You can discuss this further with the UNL Office of Scholarships and Financial Aid.

External Awards. You are encouraged to explore funding opportunities outside of UNL.

## **Requirements for Mathematics Education Endorsement**

STATE OF NEBRASKA ACADEMIC COURSEWORK REQUIREMENTS FOR GRADES 7-12 MATHEMATICS EDUCATION ENDORSEMENT

In order to become certified and "endorsed" to teach mathematics grade 7-12 in the State of Nebraska, you must complete sufficient mathematics coursework. We require applicants to have earned at least 24 credit hours of mathematics at the level of calculus or above with grades of 3.0 [B] or above. Any academic deficiencies must be remedied by May 2012.

To evaluate your 24 mathematics credits and to see if you have any academic deficiencies, please complete the Prerequisite Courses Form.

If you feel that your GPA in your mathematics courses does not reflect your mathematical knowledge and abilities and is well below 3.0, the Graduate Faculty Admissions Committee will consider scores from the following PRAXIS II examinations:

- Praxis II: Mathematics: Content Knowledge (0061)
- Praxis II: Mathematics: Proofs, Models, and Problems, Part I (0063)

These exams are NOT required for admission, but strong scores can offer further evidence of your mathematical knowledge and reasoning abilities that is not represented in your academic record. Be sure to indicate in your application that you are taking these exams.

### Application Requirements

The deadline to apply is October 1 (Spring start term).

### **Application Checklist**

\_\_\_\_ Complete the '**Teaching, Learning and Teacher Education (MA)**' application, including transcripts and fees, prior to the department application deadline.

\_\_\_\_ Resumé/CV

- Personal Statement\*
- \_\_\_\_ Three Recommenders\*\*
- \_\_\_\_ Minimum undergraduate GPA of 3.0

\_\_\_\_ Complete the '**Teacher Certification (Initial) – Mathematics 6-12**' application, including transcripts and fees, prior to the department application deadline.

- \_\_\_\_ Successfully complete a Background Check\*\*\*
- Complete the Praxis® I Core Academic Skills for Educators\*\*\*\*
- \_\_\_\_ Completed Prerequisite Courses Form ('Other Upload')

The Initial Certification application will require you to upload material from your MA application again, as the MA & Initial Certification are considered two separate programs by the Office of Graduate Studies and can be completed separately of each other.



#### **International Applicants**

- TOEFL score of at least iBT 79; all subscores must be at least in the Intermediate/Fair range. If the IELTS is taken in place of the TOEFL, all subscores must be a minimum of 6.5. Applicants taking the TOEFL or the IELTS may be asked to take part in an online interview.
- The equivalent of at least one year of full-time teaching experience is required for consideration.

#### **Personal Statement and Recommenders**

The Graduate Admissions Committee will review for the following evidence:

- Academic strengths and readiness to do graduate study
- Professional and academic goals and whether these align with the goals of the Department

In addition to the minimum requirements listed above, transcripts and resume, the Graduate Admissions Committee closely examines your letters of recommendation and your personal statement.

\***Personal Statement.** The Graduate Admissions Committee looks closely at the applicant's goals in the personal statement essay for further evidence of your meeting the admissions criteria. A well-written essay is crucial to admissions decisions. This personal statement is a concise statement in which you address clearly why you want to pursue this graduate program at the University of Nebraska-Lincoln. In this essay you should address clearly:

- 1. Your academic and/or professional goals and how this graduate program will enable you to meet these goals.
- 2. Your academic strengths, with specific attention to your background in higher education and how this qualifies you for graduate study at a major university.
- 3. Any professional experience, knowledge, and skills you possess and how these further qualify you for graduate study at a major university. This statement should be between 700-1000 words.

\*\***Recommenders.** The application requires three letters of recommendation. The Graduate Admissions Committee considers letters an important part of any application. You should solicit Recommenders that can directly address your readiness and qualification to do graduate study in Teaching, Learning and Teacher Education. Letters should come from those who are familiar with your academic and professional work, such as former professors, employers or administrators. Do not include letters from friends, family members, or your own high school teachers. Each of these will be disregarded in the review and detract from your application.

#### Within your MA application, you will input the contact information of your Recommenders. After submitting their information, your Recommender will be sent an email, with a link where they can upload your letter of recommendation.

\*\*\***The Nebraska Department of Education and Nebraska** school districts require that College of Education and Human Sciences students who plan to pursue a degree in an education-related field, athletic training majors, and any other UNL students who enroll in CEHS courses that involve practicum experiences in the schools are required to undergo a formal screening process related to criminal history through One Source. Consequently, a background check is a pre-requisite for application to our programs.



\*\*\*\***Praxis Testing Requirement.** You are required to take the Praxis® Core Academic Skills for Educators (Core) for admission to this teacher education program. A passing score is not necessary for admission, however documentation that you have taken the exam is required. Scores must be sent directly from ETS to UNL (institutional code 6877) and may take up to 6 weeks to be reported. It is preferable that you take the test 4-6 weeks before the application deadline so that your official scores can be included in your application. Please note that the Nebraska Department of Education requires passage of the Praxis Core for initial licensure, therefore you will need to pass it before your teaching license can be issued.

You are allowed to re-take the CORE once within any calendar month. Please plan accordingly to allow adequate time.

Only completed application files will be considered for admission. It is the applicant's responsibility to be certain that all materials are submitted and received prior to the deadline dates.

### Apply at go.unl.edu/gradapp.

### Contacts

### **Faculty Contact**

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#### **Program Contact**

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