



## Science Education (Biology, Chemistry, Earth and Space Science, or Physics, Grades 7–12)

*Master of Arts (M.A.) with Initial Teaching Certification*

### Overview

*In an effort to build the teaching profession and provide 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 leads to an initial teaching certification in science education, specifically single-subject endorsements in biology, chemistry, Earth and space science, and physics. This program is a campus-based program.*

**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 and their initial teaching certification in their content area and be fully certified to teach in Nebraska, be eligible for reciprocal certification in most other U.S. 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 and Student Teaching Placements.** Students will be placed in a public school setting, usually [Lincoln Public Schools](#) or [Omaha Public Schools](#) for classroom teaching internships. Collaborative mentorship with experienced teachers offers 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 practicum experiences and be prepared to assume full-time student teaching.

**Inquiry.** Inquiry infuses all aspects of this graduate program. As a required part of their MA degree, students will also focus on a problem of practice or curriculum inquiry capstone project that requires the development of teacher action research about their own teaching and their students' learning.

**Residency.** Students will attend class on the UNL campus and gain practical experience in K-12 schools in and near the Lincoln 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.



### **Master of Arts Leading to Initial Teaching Certification in Science Education**

The Department of Teaching, Learning, and Teacher Education offers a full-time Master of Arts degree program that includes the required education courses to become a certified secondary (7-12) science teacher in the State of Nebraska.

This 42-credit hour program is specifically designed for qualified applicants who have earned at least a bachelor's degree in an area of science (e.g., biology, chemistry, geosciences, physics, agricultural science or natural resources, or environmental sciences) who want to become middle or high school science teachers. The intensive program requires full-time graduate student status starting in January. Upon completion of the program individuals will be eligible to graduate with a master's degree 20 months later (August graduation).

We are looking for both recent science college graduates and experienced science professionals who seek a career change with strong academic backgrounds and a commitment to fostering adolescents' learning and enjoyment of science.



*Graduates from the Class of 2014 with Dr. Beth Lewis, MAst Program Coordinator*



## Typical Sequence of Required Coursework and Practical Experience

### Teacher Certification Courses

SPED 801B Special Education for Teachers (3 cr)  
TEAC 861 Education for a Pluralistic Society: Foundation and Issues (3 cr)  
TEAC 880A Instructional Technology (3 cr)  
EDPS 851 Psychology of Adolescence (3 cr)

### Science Teaching and Clinical Coursework

TEAC 851V Secondary Science Teaching Methods I (3 cr)  
TEAC 894V Practicum I (1 cr)  
TEAC 852V Curriculum Principles and Practice (Secondary Science) (3 cr)  
TEAC 894V Practicum II (1 cr)  
TEAC 897V Student Teaching (4 cr)  
TEAC 803B Student Teaching Seminar (3 cr)

### Additional Courses for the Master of Arts Degree

\*TEAC 800 Inquiry into Teaching and Learning (3 cr)  
\*TEAC 801 Curriculum Inquiry (3 cr)  
TEAC 813M Teaching Multilingual Learners in the Content Areas (3 cr)  
TEAC 892 Nature of Science (3 cr)  
\*TEAC 889 Masters Seminar (3 cr)  
\* *Required MA degree coursework*

## Who Should Apply?

This program offers a pathway to middle and high school teaching for those with degrees in a science field *but do not already have a teaching credential*.

### You should consider applying if you:

- Have earned a bachelor's degree (ideally within the last 10 years) in an area of science (e.g., biology, chemistry, geosciences, physics, agricultural science or natural resources, or environmental sciences), from an accredited college or university (if your degree is over 10 years old, you must show relevant current work/professional experience).
- Have completed academic coursework in a science content area as part of an undergraduate degree (a minimum of 24-30 hours in a science such as biology, chemistry, geosciences, physics and 12 additional hours among the other three supporting sciences).
- Qualify for admission to the Department of Teaching, Learning and Teacher Education's Master of Arts degree program.
- Can commit to participating fully in a cohort-based, full-time, face-to-face academic teacher education program.

### Please note:

Students attend classes at the UNL City Campus and gain practical experience in local public schools. Consequently, teacher candidates must be located at a reasonable distance to travel to the UNL city campus and the local cooperating public schools on a daily basis.

This program is *not* suited for educators who currently have teaching certification or former educators seeking to renew certification. These students can be served more appropriately within the traditional **M.A.** degree programs.



## Program Values

For graduate-level preservice teachers to learn how to teach diverse learners of science.

**UNL science teacher graduates are distinguished by their capacities for:**

- Using theories of learning to inform instructional practices
- Developing a curricular vision
- Competent teaching of their subject matter
- Teaching diverse learners
- Becoming agents of change and reform
- Understanding teaching fundamentals
- Using a range of assessment practices
- Ethical professional judgment
- Structuring engaging learning environments
- Growing professional knowledge

## Financial Support

**\$10,000 available through the American Chemical Hach Scholarship**

**October 1** is the next deadline to apply to the MA program leading to initial teaching certification in science education.

Respond to the essay prompt by writing 2-3 pages (12-point, double-spaced, 1" margins, and approximately 500 words).

*Describe three goals you have as a future science teacher of diverse students. Provide specific examples of these goals and make an argument for why you would be a high-qualified science teacher.*

## Requirements for Secondary Science Endorsements

In order to become endorsed to teach in one area of science (i.e., biology, chemistry, Earth and space science, or physics) at the secondary level (grades 7-12) in Nebraska, you must have completed sufficient academic science coursework, typically as part of an undergraduate degree. This should include at least 24 credit hours in one area of science and 12 credits among three ancillary sciences, which are required for certification. These science content courses must be completed before starting the program as the program does not include science coursework. **Please complete and submit the Prerequisite Courses Form to your application.**

**Applicants with missing science courses should discuss any such deficiencies in any of the above areas with the program coordinator at the time of their application to the program. More than a few missing science courses will prevent timely teacher certification.**

The Praxis II science test is required for both single-subject (i.e., biology, chemistry, Earth and space science, or physics) or broad field (i.e., general science) Nebraska secondary science endorsements. Applicants seeking a single-subject endorsement should register for the Praxis II exam that corresponds to that endorsement area and complete it prior to student teaching. Applicants seeking the broad field general science endorsement (for those intending to teach middle school)



should register for and take the Praxis II exam in the subject area in which they have the most credit hours as well as the general science exam.

Endorsement	Praxis II Test	Test Number
Biology	Biology Content Knowledge	5235
Chemistry	Chemistry: Content Knowledge	5245
Earth Science	Earth and Space Science: Content Knowledge	5571
Physics	Physics: Content Knowledge	5265
Science	General Science: Content Knowledge	5435

## Application Requirements

The deadline to apply is October 1<sup>st</sup>, for a Spring semester start.

### Applications Checklist

**1.** \_\_\_ 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' contact information\*\*
- \_\_\_ Minimum undergraduate GPA of 3.0

**2.** \_\_\_ Complete the **'Teacher Certification (Initial) – Biology/Chemistry/Earth and Space Science/Physics/Science'** application, including transcripts and fees, prior to the department application deadline.

- \_\_\_ Successfully complete a **Background Check**\*\*\*
- \_\_\_ Completed **Prerequisite Courses Form** ('Other Upload')

*The Initial Certification application will likely 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.



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](https://go.unl.edu/gradapp)**

**Faculty Contact for Secondary Science MA & Initial Teacher Certification programs:**



Dr. Beth Lewis, Associate Professor  
[elewis3@unl.edu](mailto:elewis3@unl.edu)

**Faculty Contacts in Science Education:**



Dr. Deepika Menon, Assistant Professor  
Elementary Science Education  
[dmenon2@unl.edu](mailto:dmenon2@unl.edu)



**Graduate Program Support Contact:**

Joelle Tangen, Graduate Project Associate

230E Carolyn Pope Edwards Hall

[jtangen2@unl.edu](mailto:jtangen2@unl.edu)