

PROGRAM HANDBOOK  
Medical Science  
Interdepartmental Area  
(MSIA)

Updated April 2025

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# Medical Sciences Interdepartmental Area (MSIA) Graduate Program

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**PROCEDURES GOVERNING THE ADMISSION AND PROGRESS  
OF STUDENTS IN THE MEDICAL SCIENCES INTERDEPARTMENTAL AREA  
GRADUATE PROGRAM**

**Description of the Program**

The Medical Sciences Interdepartmental Area (MSIA) was developed to host graduate students from departments within UNMC who require a multidisciplinary/non-traditional focus that may not be provided by other graduate or professional degree programs and is intended for those who wish to pursue individually designed programs of an interdisciplinary nature within the health sciences. The MSIA program is composed of seven sub-plans including three that are department -based:

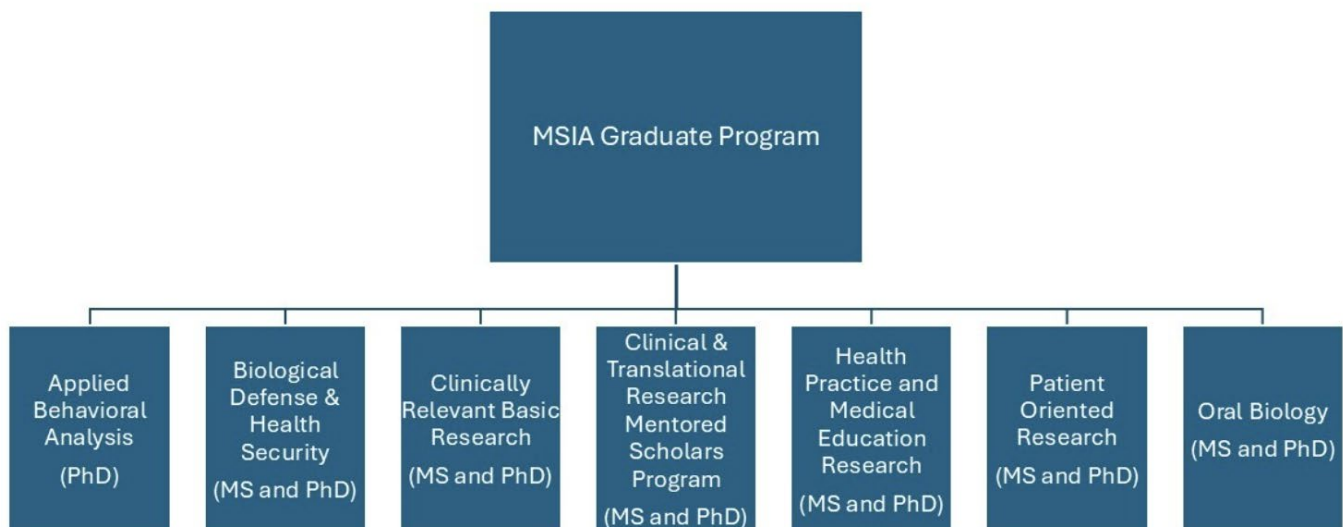
- Oral Biology
- Applied Behavior Analysis
- Biological Defense & Health Security

Three interdisciplinary translational research sub-plans:

- Patient Oriented Research
- Clinically Relevant Basic Research
- Health Practice and Medical Education Research

And the Clinical Translational Research Mentored Scholars Program, specific for UNMC faculty with the goal of supporting faculty so they can be competitive at securing extramural funding.

The MSIA Graduate Committee consists of at least one member from each participating sub-plan and governs the MSIA program.



**Our Vision**

To transform health care through advanced education and scientific inquiry in clinical and translational research.

**Our Mission**

The mission of the MSIA is to prepare the highest quality clinical and translational research scientists and practitioners by providing students the opportunity for multidisciplinary knowledge acquisition, as well as mastery of clinical and translational research skills and their application to health care best practices.

Students and advisors should conform to the general requirements and procedures of the Graduate College and the UNMC Graduate Studies Handbook. The following outlines requirements and adds applicable rules and procedures of MSIA and its subplans.

**A. Application for admission:**

Applications for admission to the MSIA program must be submitted online by the appropriate deadline.

General requirements governing admission to the Graduate College and online application

Information is found in the Graduate Studies link at:

<https://www.unmc.edu/gradstudies/admissions/index.html>

In addition, the following requirements must be met:

1. Each applicant must submit a brief narrative describing the reasons for applying to the MSIA program. The narrative should include a statement of career goals, area of research interest and an explanation as to how an interdisciplinary degree would aid in achieving these objectives. For optimal review, the narrative should include the MSIA sub-plan area that the applicant wishes to apply to and the mentor/advisor they have identified.  
(See next item indicating requirement of a mentor).
2. Applicants to the Health Practice and Medical Education Research, Patient-Oriented Research Clinically Relevant Basic Science and Clinical Translational Research Mentored Scholar sub-plans must have a mentor identified prior to application submission. The application review will not proceed until a mentor has been identified. A mentor should be selected who has the background and research expertise to meet the needs of the student's research area. The mentor would need to agree to serve as the students' advisory/supervisory committee chair and provide funding for students who require an assistantship. Applicants are responsible for contacting potential mentors and securing agreement. Applicants to the following subplans must have a mentor identified after the subplan committee reviews their application materials and/or completes an interview to determine which faculty is available and will support their research goals and program of study. The mentor must be confirmed prior to an offer of admission: Applied Behavior Analysis, Oral Biology, Biological Defense & Health Security.
3. As per Graduate Studies requirements, each applicant must submit three (3) letters of recommendation, a Resume or CV, and official transcripts.
4. MSIA also requires each student to submit unofficial transcripts. Unofficial transcripts are needed for review of the application while official transcripts are being verified through an external agency.

**International Applicants:** You are required to have all international transcripts verified before we can review your application. Please see the Graduate Studies Requirements and how to obtain them. It is imperative you start this process early as it can take several months to complete:  
<https://www.unmc.edu/gradstudies/admissions/international-students/equivalent-degrees.html>

**International Applicants:** UNMC graduate courses are advanced and require a firm understanding of the English language to best succeed. That's why UNMC requires all students whose first language is not English to take a proficiency test. The tests you can take to show English language proficiency are available on the UNMC Graduate Studies website:  
<https://www.unmc.edu/gradstudies/admissions/international-students/english-proficiency.html>

**B. Review of application for admission:**

The Chair of the MSIA Graduate Committee will initiate the review. If the applicant meets the general requirements for admission to the program, the application will be forwarded to the Admissions Advisory Committee (comprised of the sub-plan advisory committee members) to review the application.

The functions of the Admissions Advisory Committee are to:

1. **Confirm receipt of a written commitment from the proposed mentor/advisor.** For students who receive funding/assistantship, the mentor (with approval of the appropriate supervisor division chief, department chair or dean) must sign a Funding Agreement (**APPENDIX A**) to support the applicant's research program (e.g., research expenses, awarding of a graduate assistantship, etc.) for a minimum of 4 years.
2. **Determine if a program of study can be developed for the applicant.**
3. **Recommend admission.**  
Upon completion of the above responsibilities the Admissions Advisory Committee shall submit a report to the MSIA Graduate Committee Chair. The recommendations concerning admission of the applicant to the MSIA Graduate Program are forwarded to the Graduate Studies office for final action.

**Evaluation for admission is based on a portfolio (holistic) approach that includes the following:**

1. Official transcripts of all college work, including undergraduate, professional, and graduate schools.
2. Grade point average in the undergraduate and/or professional degree that is equivalent to 3.0 or higher. (4.0 scale)
3. Letters of Recommendation from references who can provide an in-depth evaluation of the applicant's strengths and weaknesses with respect to academic work, motivation and who are competent to judge the applicant's probable success in graduate school.
4. Other evidence of graduate potential, such as a portfolio of quality presentations, papers or publications, projects, etc., completed by the applicant either in an academic or industrial setting.
5. Evidence of professional success such as advanced certifications, leadership positions at places of employment, or elected offices held in professional organizations.
6. Availability of appropriate resources to support the applicant (e.g., stipend, project expense, graduate faculty supervision).

**C. Requirements for the Master of Science Degree**

Follow Graduate Studies requirements for the Master of Science Degree:

[Requirements for Graduate Degrees < University of Nebraska Medical Center \(unmc.edu\)](#)

The timeline for degree requirements (**MSIA specific timeline requirements red**):

[Master's Timeline | Office of Graduate Studies | University of Nebraska Medical Center \(unmc.edu\)](#)

- **MSIA requires that students identify their advisory committee by the end of their first semester.**
- **MSIA requires that students submit their program of study for approval by the end of their first semester.**
- **Students in the following subplans will follow the graduate studies timeline requirements for committee and program of study submission:**
  - **Clinical Translational Mentored Scholars Program**

In Summary with MSIA specific requirements in **red**:

1. As soon as possible but no later than one month of selecting a mentor/advisor the student and mentor will review and sign the [Compact Between Graduate Students and Their Research Advisor](#). Once this is signed completely the student will upload this document to Seguidor.
2. The major advisor and student shall establish members for the Advisory Committee. The Advisory Committee shall be composed of at least three faculty members. The student's major advisor will serve as the Chair of the Advisory Committee.
  - **Two of the three members must have graduate faculty status.**
  - **MSIA Oral Biology advisory committee requirement:** The Advisory Committee shall be composed of at least 3 faculty members from the Oral Biology Department, all of whom should hold graduate faculty status.
  - The Advisory Committee shall meet every six months to review the students' progress.
3. The student should communicate with potential members to secure agreement. **By the end of their first semester** the student shall enter the name of their Advisory Chair and Advisory committee into Seguidor for approvals.
4. The Advisory Committee shall approve a program of studies by the end of the first semester of the student's initial registration.
  - a. The program of study must follow the sub-plan curriculum guidelines for the year of admission
  - b. The program of studies shall be entered into Seguidor and will be forwarded to Sub-plan Director and the MSIA Chair and to the Dean for Graduate Studies for final approval.
5. The Advisory Committee will meet at least once every six months to review the students' progress in courses and research. A copy of the minutes of each meeting shall be uploaded to Seguidor.

**MSIA highly recommends once a year these minutes include an annual report using the template provided as appropriate (See APPENDIX B).**

Students are encouraged to share and discuss the research and career goals with their Supervisory Committee.

6. Each student must complete an Individual Development plan (IDP) within 1 year after matriculation. The student should consult with the Graduate Program Director to identify the specific IDP that should be utilized. Students enrolled in the Clinical & Translational Mentored Scholars Program must complete a subplan specific IDP, which is located on the [MSIA-CTRMSP website](#) (under "program resources"). Students must upload documentation showing that they have completed their IDP requirement to Seguidor.
7. The subject of the thesis must be approved by the student's Advisory Committee. The thesis work should reveal the student's ability to use the techniques employed in the field of investigation. Participation in research can begin at any time.

8. The Advisory Committee is responsible for the administration of the comprehensive examination and final oral exam. The MSIA comprehensive exam policy is available on the MSIA website (under 'Current Student Resources') or the following link:

**MSIA MS Comprehensive Exam Procedures:**

<https://www.unmc.edu/gradstudies/documents/msia-ms-comprehensive-guidelines.pdf>

Graduate Studies Thesis and Graduation Requirements for the MS Degree:

[thesis-graduation-instructions-ms-students.pdf \(unmc.edu\)](https://www.unmc.edu/gradstudies/documents/thesis-graduation-instructions-ms-students.pdf)

9. In summary, the Advisory Committee for M.S. Degree students have the following principal responsibilities:
- Assist the student in developing a program of study.
  - Advise the student regarding research direction and thesis preparation.
  - Administer the comprehensive examination.
  - Serve as the Examination Committee for the final oral exam. (i.e., thesis defense)

#### **D. Requirements for the Document of Philosophy Degree**

A minimum of four full years of graduate study are normally required to complete a program for the degree of Doctor of Philosophy for a student who enters the program with a bachelor's degree. Neither the courses completed, nor the time spent in study determines completion of requirements for the Ph.D. degree. It is earned primarily through the pursuit of excellence in some special field of scholarship which involves the demonstrated ability to conduct independent research. As per UN Graduate college guideline, the Ph.D. degree must be completed within seven years from the date of initial admission

Follow Graduate Studies guidelines for the PhD degree.

<https://catalog.unmc.edu/graduate-studies/requirements-degrees/#doctoraldegreetext>

The timeline for degree requirements (MSIA specific requirements in red):

<https://www.unmc.edu/gradstudies/programs/phd-timeline.html>

- MSIA requires that students identify their advisory committee by the end of their first semester.
- MSIA requires that students submit their program of study for approval by the end of their first semester.
- Students in the following subplans will follow the graduate studies timeline requirements for committee and program of study submission:
  - Clinical Translational Mentored Scholars Program

In summary with MSIA specific requirements in red:

- As soon as possible but no later than one month of selecting a mentor/advisor the student and mentor will review and sign the [Compact Between Graduate Students and their Research Advisor](#). Once this is signed completely, the student will upload this document to Seguidor. For students with a mentor committed at admission, the compact is due one month after matriculation.
- The major advisor and student shall establish members for the Supervisory Committee following graduate studies [guidelines](#). While MSIA follows graduate studies rules for Supervisory committee



members, we do recommend including multiple disciplines and a statistician if your project includes complicated study design or analysis. Additionally, University experts without graduate faculty status or faculty/experts from other institutions can serve as non-voting committee members and can enhance the learning experience. It is recommended that early career faculty who do not have experience serving as an MSIA student advisory committee chair have a co-chair who is familiar with MSIA processes and procedures.

3. The student should communicate with potential members to secure agreement. By the end of their first semester the student shall enter the name of their Supervisory Chair and Supervisory committee into Seguidor for approvals.
4. The Supervisory Committee shall approve a program of studies which must be submitted in Seguidor for approval by the end of the student's first semester
  - a. The program of study must follow the sub-plan curriculum guidelines for the year of admission
  - b. The program of studies shall be entered into Seguidor and will be forwarded to Sub-plan Director and the MSIA Chair and to the Dean for Graduate Studies for final approval.
5. The Supervisory Committee will meet at least once each six months to review the students' progress in courses and research. A copy of the minutes of each meeting shall be uploaded to Seguidor. **MSIA highly recommends once a year these minutes include an annual report using the template provided as appropriate: See APPENDIX B.**

Students are encouraged to share and discuss their research and career goals with their Supervisory Committee.

in summary, the Supervisory Committee for PhD. students have the following principal responsibilities:

- a. Assist the student in developing a program of study.
  - b. Approve the topical area for dissertation research.
  - c. Advise the student regarding research direction and dissertation preparation.
  - d. Administer the comprehensive examination.
  - e. Serve as the Examination Committee for the final oral examination. (i.e., dissertation defense)
6. Each student must complete an Individual Development plan (IDP) within 1 year after matriculation. The student should consult with the Graduate Program Director to identify the specific IDP that should be utilized. Students enrolled in the Clinical & Translational Mentored Scholars Program must complete a subplan specific IDP, which is located on the MSIA-CTRMSP website (under "program resources"). Students must upload documentation showing that they have completed their IDP requirement to Seguidor.

## G. Examination requirements:

### Doctor of Philosophy Degree program examinations

The Supervisory Committee is responsible for administration of the comprehensive examination and final oral exam.

#### MSIA Comprehensive Exam Procedures:

<https://www.unmc.edu/gradstudies/documents/msia-phd-comprehensive-guidelines.pdf>

#### a. Comprehensive examination for Ph.D. Degree

Passing a Comprehensive Examination is required of all students in the MSIA Doctoral program. Students should follow MSIA PhD Comprehensive Guidelines, which are available on the MSIA website.

<https://www.unmc.edu/gradstudies/documents/msia-phd-comprehensive-guidelines.pdf>

The Comprehensive Examination must include a written and oral portion. The objective of the examination is to determine the extent of the student's knowledge and the ability to apply that knowledge in problem solving situations. The written examination shall include the preparation and defense of a scientific research grant proposal (i.e., federal grant format or equivalent). The Supervisory Committee will decide whether the proposal is to be evaluated by external or internal reviewers. The oral examination should include a defense of the proposal and may cover areas related to the student's program of study. The Supervisory Committee will inform the student of the format and scope of the written and oral examinations. Details agreed upon should be documented in the committee minutes.

As with the research proposal, the format, the names of the examiners for the Comprehensive Examination will be provided to the student and the Chair of the MSIA Graduate Committee. The results will be sent to the student and to the Dean of the Graduate College and a copy sent to the Chair of the MSIA Graduate Committee.

#### b. Admission to candidacy

- a) After the student has passed the comprehensive examination, satisfied the requirements of his/her approved program, and other requirements of the Supervisory Committee, the committee will recommend to the Graduate Office the student's admission to candidacy for the Ph.D. degree. The recommendation must be filed at least seven months prior to the final oral examination (defense of dissertation). A student is formally recognized as a candidate as of the date of completing the comprehensive examination. If the term of candidacy is extended beyond four years, the candidate must pass another comprehensive examination. Following admission to candidacy, the student must be continuously registered for doctoral dissertation (MSIA 999) in the Graduate College until receipt of the Ph.D. degree. Students not in residency must register online each semester for a minimum of one semester hour credit in doctoral dissertation (MSIA 999). Failure to maintain continuous registration will result in the termination of candidacy.

The subject of the dissertation must be approved by the students' Supervisory Committee. The project should reveal the students' ability to use the techniques employed in the field of investigation. Participation in research can begin at any time; it is appropriate to begin research experience and/or the dissertation prior to the comprehensive exam.

- c. Dissertation MSIA follows Graduate Studies policy/requirements for final oral and dissertation procedures.

<https://www.unmc.edu/gradstudies/documents/dissertation-graduation-instructions-phd-candidates.pdf>



## APPENDIX A

### (MSIA)Medical Sciences Interdepartmental Area

### Mentor/Advisor Funding Commitment Guidelines

Thank you for agreeing to serve as the Mentor/Advisor for a student pursuing a PhD within MSIA. In addition to fulfilling general mentorship responsibilities, full time students on assistance ship are also provided an annual graduate student stipend. This stipend must meet the minimum recommended pre-doctoral stipend that is determined annually by the NIH.

In order to provide adequate support and assurances to the student that they will have the necessary time and resources to complete their degree, we ask MSIA mentors to agree to provide stipend support for a minimum of four years. This is assuming the student meets Graduate Studies goals for progression, compliance and behavior expectations. Department Chairs are asked to acknowledge this responsibility and support this commitment.

Please review and sign below:

I agree to provide and fund the following MSIA student for a minimum four years as they pursue their degree.

MENTOR \_\_\_\_\_

NAME/SIGNATURE \_\_\_\_\_ Date \_\_\_\_\_

DEPARTMENT CHAIR \_\_\_\_\_ Date \_\_\_\_\_

STUDENT  
NAME \_\_\_\_\_



## APPENDIX B

### Graduate Student Annual Progress Report & Development Plan

*Complete this form, distribute it to your Advisory/Supervisory Committee for feedback, and upload the final document to Seguidor (Graduate Students / Academic Career).*

Name: \_\_\_\_\_

Date: \_\_\_\_\_

#### 1. Career Goal

*Provide a brief (2-3 sentences) statement of your career aspirations and goals.*

#### 2. Course Progress

*The Program of Study document in Seguidor outlines the plan for courses, and grades recorded for those completed will populate automatically.*

#### 3. Comprehensive Exam

Check one (if applicable):

- ☐ I plan to take the comprehensive exam during the coming year.  
☐ I have taken the comprehensive Exam during the previous year.

#### 4. Awards, Scholarships, Assistantships or Fellowships

*List any awards, scholarships, assistantships, fellowships, or other honors received during the previous year.*

•

#### 5. Research Progress Report

*If you have an ongoing research project, state the research question and/or the hypothesis and state the specific aims in the spaces provided. For each aim, list the progress made in the last year, the pitfalls encountered and alternative approaches to address the problem, as well as goals for the upcoming year. Be concise and brief.*

**Research Question and/or Hypothesis**

**Aim 1:**



Progress toward Aim 1

- 

Pitfalls and alternative approaches

- 

Goals related to pursuit of this aim for the upcoming year

- 

**Aim 2:**

Progress toward Aim 2

- 

Pitfalls and alternative approaches

- 

Goals related to pursuit of this aim for the upcoming year

- 

**Aim 3:**

Progress toward Aim 3

- 

Pitfalls and alternative approaches

- 

Goals related to pursuit of this aim for the upcoming year

- 

**Aim 4:**

Progress toward Aim 4

- 

Pitfalls and alternative approaches

- 

Goals related to pursuit of this aim for the upcoming year



- 

## 6. Research/ Professional Development Report

- a. **Report on previous year's research/professional development goals** (If this is your initial Annual Progress Report, skip to Section 6.b.)

*In the spaces below, list last year's goals related to your research/professional skillset and productivity, and report on your progress toward achieving those goals.*

**Last year's Goal 1:**

Completed? Yes ☐ No ☐

**Last year's Goal 2:**

Completed? Yes ☐ No ☐

**Last year's Goal 3:**

Completed? Yes ☐ No ☐

**Last year's Goal 4:**

Completed? Yes ☐ No ☐

**Last year's Goal 5:**

Completed? Yes ☐ No ☐

- b. **Research/professional development goals for the coming year**

*Develop and document specific, objective and measureable goals related to your research/professional development skillset and productivity for the upcoming year.*

**EXAMPLES:**

- Submit a first author publication to Journal of Immunology by Dec.
- Present poster at Midwest Student Research Forum Feb.
- Work with Dr. Smith to learn how to utilize Cre-Lox methodology.

**Goal 1** (targeted date of completion: \_\_\_\_\_)



**Goal 2** (targeted date of completion: \_\_\_\_\_)

**Goal 3** (targeted date of completion: \_\_\_\_\_)

**Goal 4** (targeted date of completion: \_\_\_\_\_)

**Goal 5** (targeted date of completion: \_\_\_\_\_)

## 7. Career Development Report

- a. **Report on previous year's career development goals** (If this is your initial Annual Progress Report, skip to Section 7.b.)

*In the spaces below, list last year's goals related to your career development, and report on your progress toward achieving those goals.*

**Last year's Goal 1:**

Completed? Yes ☐ No ☐

**Last year's Goal 2:**

Completed? Yes ☐ No ☐

**Last year's Goal 3:**

Completed? Yes ☐ No ☐

**Last year's Goal 4:**

Completed? Yes ☐ No ☐

**Last year's Goal 5:**

Completed? Yes ☐ No ☐

- b. **Career development goals for the coming year**

*Develop and document specific, objective and measureable goals related to your career development for the upcoming year.*





Examples:

- Attend three seminars or workshops per semester related to education or teaching techniques.
- Attend two Graduate Studies Transferable Skills Workshops each semester.
- Serve as a Teaching Assistant in Course XYZ for the spring semester.
- Complete UNMC course on Entrepreneurship in the fall semester.

**Goal 1** (targeted date of completion: \_\_\_\_\_)

**Goal 2** (targeted date of completion: \_\_\_\_\_)

**Goal 3** (targeted date of completion: \_\_\_\_\_)

**Goal 4** (targeted date of completion: \_\_\_\_\_)

**Goal 5** (targeted date of completion: \_\_\_\_\_)

**Committee Feedback**