PH.D. IN TEACHING AND LEARNING

Overview
The Ph.D. Program in the Department of Teaching and Learning prepares highly qualified individuals to serve as educational leaders, researchers, designers and teacher educators whose work will contribute to improving teaching and learning both in and out of schools. The program has a strong focus on diversity and equity and supports faculty and student research in areas such as early development, instructional interventions, innovative use of technology, multilingualism, teacher preparation, family engagement, disability, education policy, and science, technology and mathematics learning. Incoming students are assigned a Supervisory Committee to advise them in developing their Program of Study. With the approval of their Supervisory Committee, doctoral students may apply up to 30 credits from an earned Master’s degree towards the 60 required credits of coursework. Students must also enroll in 12 dissertation credits.

Application Requirements
Admission to all graduate-degree concentrations in the School of Education and Human Development is based on the recommendation of the faculty. Admissions decisions are based on faculty review of the following general requirements that apply to all Graduate Programs in the School as well as specific documents listed under each concentration.

Applicants must:
• Graduate Record Exam (GRE) requirements may be waived for applications to Spring 2021 and following, pending final approvals. However, if the GRE is required for admissions, applicants must achieve acceptable scores on the GRE taken within the past five years. International applicants whose native language is not English or applicants whose degrees are from a non-U.S. University must pass the Test of English as a Foreign Language (TOEFL) or International English Language Testing Systems (IELTS) and the GRE;
• provide official transcripts showing completion of a bachelor's degree from an accredited institution and an acceptable undergraduate grade point average. A minimum of 3.0 undergraduate GPA is required. Official transcripts from every institution attended by an applicant, whether or not the applicant completed a degree program at the institution, are required;
• provide three letters of recommendation that address the issues and meet the criteria established by the program being applied to;
• provide a personal statement that addresses the mission and purpose of the program being applied to;
• resume;
• take part in an admissions interview (required by some programs); and
• exhibit personal and professional experiences and characteristics that are relevant to the profession and/or field and/or degree program for which the application is being submitted.

Doctor of Philosophy (Ph.D.)
In addition to the factors listed as general requirements for all applications to the SEHD’s graduate programs, consideration for admission to the Ph.D. program will include the following:
• letters of recommendation should address the applicant’s academic potential;
• available student space in the program;
• For TAL: availability of faculty advisor willing to mentor the student.

International Applications
All international applications must provide additional information and meet additional requirements as required by the UM Graduate School and the Office of International Student and Scholar Services. For an appropriate link to these requirements, please visit the Graduate School website.

Admission Decision
Once an applicant has been admitted to graduate study, that individual should meet with the faculty advisor who was appointed to serve in that capacity and whose name appears in the admissions letter. This advisor will help the student enroll in courses that are appropriate to the program; to develop and to refine a Program of Study that must be on file in the Office of Graduate Studies by the end of the first academic year of enrollment.

Honor Code/Handbook of Policies and Procedures
The School of Education and Human Development follows the Graduate School’s Honor Code. All students are required to review the Graduate Student Honor Code and the School of Education and Human Development’s Handbook of Policies and Procedures for Graduate Students and submit the signed Acknowledgement of Receipt located on page 3 by the end of their first semester of enrollment.

Curriculum Requirements

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Educational Foundations</td>
<td>9</td>
</tr>
</tbody>
</table>

Select 9-credits (3 courses) from the following:
### Core Courses in the Area of Specialization

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAL 710</td>
<td>Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td>TAL 731</td>
<td>Language Policy and Planning (K-12)</td>
<td>3</td>
</tr>
<tr>
<td>TAL 733</td>
<td>Applied Linguistics</td>
<td>3</td>
</tr>
<tr>
<td>TAL 734</td>
<td>Theory and Research in Reading</td>
<td>3</td>
</tr>
<tr>
<td>TAL 735</td>
<td>Theory and Research in Writing</td>
<td>3</td>
</tr>
<tr>
<td>TAL 752</td>
<td>Seminar in Reading/Learning Disabilities</td>
<td>3</td>
</tr>
<tr>
<td>TAL 753</td>
<td>Introduction to Science of Learning</td>
<td>3</td>
</tr>
<tr>
<td>TAL 754</td>
<td>Disability and Diversity: Critical Views</td>
<td>3</td>
</tr>
<tr>
<td>TAL 755</td>
<td>Current Issues in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>TAL 756</td>
<td>Research in Special Education</td>
<td>3</td>
</tr>
<tr>
<td>TAL 772</td>
<td>Instructional Design and Technology in STEM Education</td>
<td>3</td>
</tr>
<tr>
<td>TAL 773</td>
<td>Teaching and Teacher Education</td>
<td>3</td>
</tr>
<tr>
<td>TAL 774</td>
<td>STEM Learning</td>
<td>3</td>
</tr>
<tr>
<td>TAL 775</td>
<td>STEM Curriculum and Policy</td>
<td>3</td>
</tr>
<tr>
<td>TAL 776</td>
<td>Assessment in STEM Education</td>
<td>3</td>
</tr>
<tr>
<td>TAL 777</td>
<td>STEM-Education Research Practicum</td>
<td>3</td>
</tr>
<tr>
<td>TAL 778</td>
<td>Diversity and Equity in STEM Education</td>
<td>3</td>
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</tbody>
</table>

### Research Methods

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAL 710</td>
<td>Introduction to Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Select 12 additional credit hours of coursework in research methods.  

### Diversity

Select 6 credit hours of coursework focusing on dimensions of diversity.  

### Electives

These credits may be taken within or outside the Department of Teaching and Learning.  

### Professional Seminar

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAL 700</td>
<td>Professional Seminar</td>
<td>3</td>
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</tbody>
</table>

### Dissertation

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAL 830</td>
<td>Pre-Candidacy Dissertation Research</td>
<td>3</td>
</tr>
<tr>
<td>TAL 840</td>
<td>Post-Candidacy Dissertation Research</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours: 72

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1. Some core courses may also be counted towards the fulfillment of the diversity requirement. See Academic Advisor.
2. Required.
3. See Academic Advisor for course options.

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### Sample Plan of Study

This is a sample Plan of Study. Your actual course sequence may vary depending on your previous academic experience as well as current course offerings. Students should meet with their academic advisor each semester to determine the appropriate course selection.

#### Year One

<table>
<thead>
<tr>
<th>Term</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>EPS 700</td>
<td>Quantitative Methods I</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAL 710</td>
<td>Introduction to Research</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAL 733</td>
<td>Applied Linguistics</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Credit Hours</td>
<td>9</td>
</tr>
<tr>
<td>Spring</td>
<td>EPS 702</td>
<td>Quantitative Methods II</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>TAL 700</td>
<td>Professional Seminar</td>
<td>1</td>
</tr>
</tbody>
</table>
### Year Two

#### Fall
- **EPS 703**: Applied Multivariate Statistics  
- **TAL 734**: Theory and Research in Reading  
- **TAL 753**: Introduction to Science of Learning  

**Credit Hours**: 10

#### Spring
- **TAL 700**: Professional Seminar  
- **TAL 714 or EPS 714**: Introduction to Qualitative Methods  
- **TAL 754**: Disability and Diversity: Critical Views  
- **TAL 773**: Teaching and Teacher Education  

**Credit Hours**: 9

### Year Three

#### Fall
- **MLL 702**: Bilingualism  
- **MLL 703**: Topics in Critical Studies of Language  
- **TAL 752**: Seminar in Reading/Learning Disabilities  

**Credit Hours**: 9

#### Spring
- **PSY 624**: Social Development  
- **SOC 693**: Special Topics and Current Issues in Race/Ethnic Relations  
- **TAL 690**: Topics in Education  
- **TAL 700**: Professional Seminar  

**Credit Hours**: 1

### Year Four

#### Fall
- **TAL 755**: Current Issues in Special Education  
- **TAL 830**: Pre-Candidacy Dissertation Research.  

**Credit Hours**: 6

#### Spring
- **TAL 830**: Pre-Candidacy Dissertation Research.  

**Credit Hours**: 3

### Year Five

#### Fall
- **TAL 840**: Post-Candidacy Dissertation Research.  

**Credit Hours**: 3

#### Spring
- **TAL 840**: Post-Candidacy Dissertation Research.  

**Credit Hours**: 3

**Total Credit Hours**: 72

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**Mission**

The mission of the School of Education and Human Development is to produce knowledge and prepare the next generation of leaders, researchers, and agents of change and well-being in education and the community.
Goals

The goal of the doctoral program in Teaching and Learning (TAL) is to provide professional preparation for careers in research and teacher education in one of the following three specialty areas: Language, Literacy, and Learning in Multilingual Settings (LLLMS); Science, Technology, Engineering and Mathematics (STEM) Education; and Special Education (SPED).

All students are expected to develop and demonstrate a high level of competency in their area of specialization, in their knowledge of research methods, and in their knowledge of diversity as it applies to their area of research and practice. We expect that our graduates will go on to work as faculty in Institutions of Higher Education or as educational leaders in school systems, educational foundations, research organizations, and other settings.

Student Learning Outcomes

- Students will demonstrate knowledge of the literature on diversity in education, with particular attention to racial, ethnic, linguistic, and cultural diversity.
- Students will demonstrate in-depth knowledge of their area of specialization, i.e., LLLMS, STEM, or Special Education.
- Students will demonstrate their knowledge of research methods appropriate to their area of specialization.