Master of Science in Interdisciplinary Studies (M.S.I.S.), Major in Interdisciplinary Studies

Science, Mathematics, and Technology Education for Elementary and Middle School Teachers

Elementary and middle school teachers may pursue an M.S.I.S. degree with a concentration in general elementary mathematics/science/technology. Dr. Sandra West Moody in the Department of Biology should be contacted if the student plans to study through the science, mathematics, and technology education interdisciplinary studies program. A review of elementary and middle school education programs at the undergraduate level indicates that elementary and middle school teachers are required to take a limited number of science, mathematics, and technology courses to complete the requirements of their degree programs. There is a critical need for elementary and middle school teachers with an adequate background in the content of science, mathematics, and technology in order to understand and incorporate the Texas Essential Knowledge and Skills (TEKS) and the National Education Standards in Mathematics and Science into the elementary and middle school curriculum. This graduate program addresses this need and facilitates the learning process by modeling inquiry as a method of discovering science, mathematics, and technology concepts. This method of modeling the TEKS and Standards while teaching the content will help teachers turn the theoretical TEKS and Standards into reality in their individual classrooms. Work/life credit cannot be used for this program.

Biology

A concentration in biology is also possible. Dr. David Lemke in the Department of Biology should be contacted if a student plans to study under this option.

Admission Policy

General Elementary Mathematics/Science/Technology Concentration

For information regarding admission application requirements and deadlines, please visit The Graduate College website at http://www.gradcollege.txstate.edu/emst.html.

Biology Concentration

For information regarding admission application requirements and deadlines, please visit The Graduate College website at http://www.gradcollege.txstate.edu/ismbio.html.

Degree Requirements

Interdisciplinary studies programs may be composed of courses selected from any department at Texas State that offers graduate courses. However, the interdisciplinary studies program requires that course work meet the following requirements:

- The degree requires a minimum of 39 semester credit hours;
- Courses must be selected from 3 colleges;
- Courses must be selected from 4 departments, with at least six hours completed in 3 of these departments;
- A maximum of 15 hours of course work in any one department may be used for degree credit; Thesis and non-thesis options are available;
- Any degree plan is tentative until it has been approved by the dean of The Graduate College.

The degree also requires passing the comprehensive examination(s).

Course Work Requirements

General Elementary Mathematics/Science/Technology Concentration

Entry Module

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDTC 5315</td>
<td>Advanced Educational Technology</td>
<td>3</td>
</tr>
<tr>
<td>CI 5329</td>
<td>The Elementary School Science Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>PSY 5370</td>
<td>Learning, Cognition, and Motivation</td>
<td>3</td>
</tr>
</tbody>
</table>

Academic Module

Choose 21 hours in consultation with graduate advisor 21

Exit Module

Choose 9 hours in consultation with graduate advisor (thesis students take 6 hours of thesis and 3 hours of electives) 9

Total Hours 39

Biology Concentration

Entry Module

Choose 9 hours in consultation with graduate advisor 9

Academic Module

Choose 21 hours in consultation with graduate advisor 21

Exit Module

Choose 9 hours in consultation with graduate advisor (thesis students take 6 hours of thesis and 3 hours of electives) 9

Total Hours 39