M.S. Data and Information Sciences

The Master of Science in Data and Information Sciences program combines graduate education in computer science and business management. The program is designed to provide graduate students with advanced education in the management and business applications of data integration and analysis. In addition to a set of core Data and Information Sciences, students may select from a wide variety of elective courses to specialize their degree.

Admission Requirements

Applicants must have earned a Baccalaureate degree from an accredited university. Students apply through the Graduate School by submitting an application and the following supporting materials:

- Official transcripts of all previous academic work
- Official scores on the Graduate Record Exam (GRE)
- Personal Statement of Purpose
- Minimum of two letters of recommendation
- A CV/resume with evidence of other relevant experience

Depending on the qualifications for study, students may need to complete leveling coursework at the undergraduate level. These courses are not applied towards the degree. Applicants must be able to demonstrate knowledge of mathematics and programming, including knowledge of probability, statistics, and basic data structures and algorithms. This can be demonstrated by completing STAT 3320 Probability and Statistics and CS 2401 Elem. Data Struct./Algorithms with a B or better, or by completing equivalent coursework or certifications as approved by the program committee. Additional leveling courses may be required as prerequisites for specific graduate courses, or on a case-by-case basis depending on the qualifications of the student.

Elective Courses (21 Hours)

Elective courses must meet the following criteria:

- Students must select seven elective courses at the 5000-level or above to complete their requirements. At least one of the courses must be related to a topic in Data Science.
- At least three of the elective courses must be offered by the Computer Science department.
- The remaining courses may be chosen from graduate programs in other colleges and must be approved by the MS in Data and Information Sciences program advisor.
- Students with relevant and documented experience in data analytics may receive up to six semester-hour credits toward their elective courses.
- Master’s Thesis (CS 5398 Master’s Thesis/CS 5399 Master’s Thesis) and Graduate Project (CS 5296/CS 5397 Graduate Projects) courses may count toward the electives.
- No more than six total credit hours of Master’s Thesis, Graduate Projects, Graduate Research, or Independent Study courses may be counted toward the degree.
- Elective course selections must be approved by the MS Data and Information Sciences program advisor.

Degree Plan

Required Credits: 30

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 5342</td>
<td>Database Management</td>
<td>3</td>
</tr>
<tr>
<td>CS 5361</td>
<td>Machine Learning</td>
<td>3</td>
</tr>
<tr>
<td>CS 5362</td>
<td>Data Mining</td>
<td>3</td>
</tr>
</tbody>
</table>

Electives:

Students must complete seven elective courses at the 5000-level or above. At least three of these courses must be offered by the CS department. The remaining courses may be chosen from graduate program in other colleges. Students may receive up to six semester-hour credits for relevant and documented experiences. Elective courses must be approved by the MS in Data and Information Sciences program advisor.

Total Hours

30