Annual Academic Assessment Report

Bachelor of Science in Data Science (DTSC)
September 14, 2023

Student Learning Outcomes:

1. Analyze complex problems facing industry, government, or society and to apply principles of data science and other relevant disciplines to identify solutions.

2. Design, implement, and evaluate a data driven solution to meet a given set of stakeholder requirements in the context of the program's discipline involving the collection, representation, manipulation, storage, governance, security, modeling (descriptive, predictive, and prescriptive), and visualization of data.

3. Communicate effectively (in written, verbal, technical, visual, and non-technical forms) in a variety of professional contexts and assist decision makers with the interpretation and implications of conclusions supported by data.

4. Recognize professional responsibilities and make informed judgments in data science practice based on legal and ethical principles.

5. Function effectively as a member or leader of a multidisciplinary team engaged in activities appropriate to the program's discipline.

6. Apply critical thinking, problem identification, problem solving skills, theory, techniques, and tools throughout the data analysis lifecycle and employ the resulting knowledge to satisfy stakeholders' needs.

Assessment and Evaluation: AY 2022-2023

The faculty of the Data Science program are preparing for ABET accreditation. At the faculty retreat in August 2022, the following activities were performed:

- Review of program objectives.
    - Approved January 2022. No changes were made.
- Review of student outcomes
    - Approved January 2022. No changes were made.
- Specification of ABET course syllabi.
- Training on implementation of student outcome assessment

During the Fall 2022 semester, the following assessment activities were performed.

- Review of ABET course syllabi.
- Training on methods to assess course outcomes for current courses.

During the Spring 2023 semester, the following assessment activities were performed.

- Review of ABET course syllabi.
- Training on methods to assess course outcomes for current courses.
- External review of curriculum and processes by the Data Science (Industry) Advisory Council.
  - Input from current students
  - Review of courses offered for the first time.

Changes to the Degree Program – Planned or Considered

The following changes to the DTSC degree program were completed:

- Creation and approval of the Music Industry Data Analytics concentration
- Creation and approval of the Cybersecurity Data Analytics concentration
- Updated DTSC 4-year plan, changing 1 required course to elective and adding 3 hours to the first year.

Changes to the Assessment Process – Planned or Completed

Collection of student outcome measures will commence for all DASC course during the 2023-24 academic year.