# BACHELOR OF ARTS IN MATHEMATICS (7-12 MATHEMATICS CERTIFICATION)

**Web Site:** https://twu.edu/mathematics/undergraduate-programs/

## Marketable Skills

Defined by the Texas Higher Education Coordinating Board's 60x30 Strategic Plan (https://reportcenter.highered.texas.gov/agency-publication/miscellaneous/thecb-60x30-strategic-plan/) as, "Those skills valued by employers that can be applied in a variety of work settings, including interpersonal, cognitive, and applied skills areas. These skills can be either primary or complementary to a major and are acquired by students through education, including curricular, co-curricular, and extracurricular activities."

### Degree Skills

a. Apply mathematical theories and techniques to the solution of practical problems in business, engineering, the sciences, or other fields.
b. Develop mathematical or statistical models of phenomena to be used for analysis or for computational simulation.
c. Determine appropriate methods for data analysis.
d. Perform computations and apply methods of numerical analysis to data.
e. Demonstrate personal accountability and work habits, integrity, and ethical behavior.
f. Assemble sets of assumptions and explore the consequences of each set.
g. Proficient in the software tools to achieve the skills listed, such as Matlab and R, SAS, SPSS, modeling software.

### Teacher Certification Skills

a. Appropriately explain the impact of effective planning and communication (within the chosen area of concentration) to relevant internal and external stakeholders in an education or community setting.
b. Identify, select, and implement entry-level instructional plans when serving as an instructor in the school setting.
c. Successfully manage organizational and student behavior when teaching in the school setting.
d. Efficiently and accurately assess student progress and use data to develop and modify instruction for K-12 students.
e. Work effectively and collaboratively with students and families from diverse backgrounds.