

#### ASSESSMENT

# MS/MSE Mathematics and Statistics

**Program-Level Student Learning Outcomes** 

## **Mathematical Knowledge -- ADVANCED CONTENT**

M.S. and M.S.E Mathematics graduates should have a deep exposure to at least three areas of advanced mathematics such as real analysis, complex analysis, abstract algebra, mathematical statistics, or applied statistical linear models.

### **Mathematical Practices - ANALYTICAL PRACTICES**

M.S. and M.S.E. Mathematics graduates should be able to think analytically and critically and formulate advanced problems, solve them, interpret their solutions, and frame generalizations.

#### **Mathematical Practices - REASONING PRACTICES**

M.S. and M.S.E Mathematics graduates should reason abstractly and achieve an advanced understanding of the nature of proof including utilizing definitions, theorems, and mathematical logic to construct proofs correctly. They should utilize appropriate mathematical terminology and symbols to communicate graduate-level mathematics clearly and effectively.

#### **Mathematical Practices - COMMUNICATION PRACTICES**

M.S. and M.S.E. Mathematics graduates should communicate advanced mathematics with clarity and effective exposition.