ISME Concentrations and Courses

- **Data Analytics**
  - IME 734  Introduction to Data Mining and Analytics
  - IME 780AN  Big Data Analytics in Engineering
  - IME 780AP  Neural Networks and Machine Learning
  - IME 869  Bayesian Statistics and Uncertainty Quantification
  - IME 880Y  Forecasting and Analytics
  - CS 697AB  Machine Learning
  - CS 771  Artificial Intelligence
  - CS 898AX  Foundations of Data Science

- **Operations Research and Systems Engineering**
  - IME 550  Operations Research I
  - IME 650  Operations Research II
  - IME 780AG  Nonlinear Programming
  - IME 851  Stochastic Modeling and Analysis
  - IME 664  Engineering Management
  - IME 764  Systems Engineering and Analysis

- **Production and Supply Chain Analytics**
  - IME 553  Production Systems
  - IME 563  Facilities Planning and Design
  - IME 783  Supply Chain Management
  - IME 767  Lean Manufacturing
  - IME 880K  Advanced Facilities and Material Handling
  - IME 883  Supply Chain Analytics

- **Quality and Reliability**
  - IME 554  Statistical Quality Control
  - IME 754  Reliability and Maintainability Engineering
  - IME 755  Design of Experiments
  - IME 854  Quality Engineering

- **Manufacturing Engineering and Automation**
  - IME 561  Applied Control Systems
  - IME 558  Manufacturing Methods and Materials II
  - IME 676  Aircraft Manufacturing
  - IME 758  Analysis of Manufacturing Processes
  - IME 761  Robot Programming and Applications
  - IME 775  Computer Integrated Manufacturing
  - IME 788  Rapid Prototyping and 3D Printing

- **Human Systems Engineering**
  - IME 549  Industrial Ergonomics
  - IME 749  Ergonomic Assessment Methods
  - IME 759  Ergonomic Interventions
  - BME 752  Applied Human Biomechanics
  - BME 757  Clinical Biomechanics Instrumentation
  - ME 709  Injury Biomechanics
  - PHS 808  Principles of Epidemiology
  - PHS 816  Environmental Health
  - PSY 920  Psychological Principles of Human Factors