# **Statistics and Analytics Master of Science**

## **Educational Statistics and Psychometrics Concentration Course Requirements**

## **Required Core Areas (12 hours)**

Statistical Methods Core (One of the following)

☐ ESRM 64003 Educational Statistics and Data Processing

#### Regression Analysis Core (One of the following)

- ♦ ESRM 64203 Multiple Regression Techniques for Education
- ♦ INEG 53903 Applied Regression Analysis in Engineering

#### Multivariate Analysis Core (One of the following)

- ♦ ESRM 64503 Applied Multivariate Statistics
- ♦ STAT 53533 Methods of Multivariate Analysis

## Experimental Design Core (One of the following)

- ♦ ESRM 64103 Experimental Design
- ♦ STAT 53733 Experimental Design
- ♦ INEG 53303 Design of Industrial Experiments

## **Required Concentration Courses (9 hours)**

- ♦ ESRM 66503 Measurement and Evaluation
- ♦ ESRM 50103 Research Methods in Education
- ♦ ESRM 67503 Item Response Theory

## **Electives** (9 hours)

Electives are chosen from the list below in consultation with the track advisor.

- ♦ ESRM 65103 Hierarchical Linear Modeling
- ♦ ESRM 65203 Structural Equations Modeling
- ♦ ESRM 69903 Seminar
- ♦ ECON 56103 Econometrics I
- ♦ ECON 66203 Econometrics II
- ♦ STAT 53733 Experimental Design
- ♦ STAT 53133 Regression Analysis
- ♦ ISYS 57203 Advanced Multivariate Analysis
- ♦ ISYS 58303 Data Management Systems
- ♦ ISYS 58403 Seminar in Business Intelligence and Knowledge Mgmt.
- ♦ STAN 6000V Master's Thesis (total 6 hours)