

TO: The Faculty of the College of Engineering

FROM: School of Electrical and Computer Engineering of the College of Engineering

RE: ECE 57700 Change in Description

The faculty of the School of Electrical and Computer Engineering has approved the following changes in ECE 57700. This action is now submitted to the Engineering Faculty with a recommendation for approval.

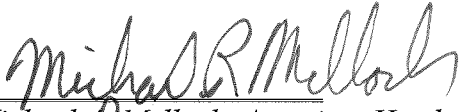
From: **ECE 57700 – Engineering Aspects of Remote Sensing**
Sem. 2. Class 3, cr. 3.
Prerequisite: ECE 30100, 30200

Introduction to the concepts of multispectral image data generation and analysis. Basic principles of optical radiation, reflection, and measurement in natural scenes. Fundamentals of multispectral sensor design and data analysis for complex scenes. Application of signal processing and signal design principles and of statistical pattern recognition to these problems. Spatial image processing methods and algorithms as appropriate to land scene data. Practice with analysis of actual aircraft and spacecraft data in a cross-disciplinary environment.

To: **ECE 57700 – Engineering Aspects of Remote Sensing**
Sem. 2. Class 3, cr. 3.
Prerequisite: ECE 30100, ECE 30200.

Introduction to the concepts of remote sensing, image data (multispectral, hyperspectral, LIDAR, microwave, SAR, etc) generation and analysis. Basic principles of data acquisition and measurement in natural scenes. Fundamentals of multispectral and hyperspectral data analysis for complex scenes. Application of signal/image processing, statistical and computational pattern recognition/classification algorithms to these problems. Spatial image processing methods and algorithms as appropriate to land scene data. Remote sensing applications in Geographic Information Systems (GIS). Practice with analysis of actual aircraft and spacecraft data in a cross-disciplinary environment, utilizing software packages such as MULTISPEC, MATLAB, ERDAS IMAGINE, ENVI and ESRI.

Reason: The course description has been changed to reflect the updated content of the course. To be offered in even numbered years.

A handwritten signature in black ink, appearing to read "Michael R. Melloch". The signature is written in a cursive style with a horizontal line underneath the name.

Michael R. Melloch, Associate Head
School of Electrical and Computer Engineering