COURSE OBJECTIVE: To expose the student to the breadth of issues related to safety and human factors in the highway transportation field. The course will survey the state of the practice in these areas and allow the student to gain experience in the recognition of problems, formulation of methodologies, analysis of data, and development of solutions.


OUTLINE OF TOPICS:

User Characteristics  
User Variability  
The User's Task Within the System  
The User's State of Mind  
Sensory/Perceptual Processes and Related Problems  
Cognitive/Attentional Processes and Related Problems  
User Actions and Reaction Time  
Alcohol and Other Drugs  
User Risk  

Pedestrians and Bicyclists  
Education, Training, Licensing, Enforcement  
Vehicle Design  
Trucks, Buses, and Motorcycles  
FMVSS, Crashworthiness, Vehicle Defects  
User Information Systems  
Roadway Lighting  
Work Zones  
Measures of Safety and Safety Evaluation  
Simulation  
Advanced Technologies

INSTRUCTOR: Dr. Martin T. Pietrucha  
221 Sackett, 214 Research Office Building (PTI)  
863-7306 (Sackett) or 863-3954 (PTI)  
E-mail: mtp5@psu.edu  
Office hours: as posted

GRADING:  
Homework Assignments 40%  
Class Participation 10%  
Term Paper Proposal 10%  
Draft of Term Paper 10%  
Term Paper 20%  
Term Paper Presentation 10%  
100%