COURSE OVERVIEW

Planning for bicycle and pedestrian travel is a somewhat new field of study, and yet it also involves planning and engineering techniques that have been around for many years. This coursebook provides the reader with current information on pedestrian and bicycle planning and design techniques, as well as practical lessons on how to increase bicycling and walking through land use practices, engineering measures, and a variety of other urban and rural design procedures.

This manual can be used to train future professionals, including planners, engineers, landscape architects, and other designers, in a variety of disciplines . Emphasis is placed on the importance of developing an interdisciplinary team approach to planning and implementing bicycle and pedestrian programs, and of the role played by each profession represented in this course.

This coursebook was developed by the USDOT Federal Highway Administration for use in graduate-level courses in non-motorized transportation planning and design. Several of the lessons address both bicycle and pedestrian issues, while others address one particular aspect of pedestrian or bicycle design. The coursebook is arranged into three sections:

Introductory Topics

Lessons cover the history of non-motorized transportation, current levels of bicycling and walking, and factors that influence the choice of bicycling or walking.

Planning Section

Lessons cover a wide range of planning issues, including pedestrian and bicycle crash types, how to prepare a local bicycle or pedestrian plan, adapting suburban communities to encourage bicycle and pedestrian travel, traditional neighborhood design, and revising local zoning and subdivision regulations to encourage bicycle- and pedestrian-friendly development.

Design Issues

The lessons in this section cover an extensive range of issues in non-motorized transportation design. Traffic calming, pedestrian accommodations at intersections, on-road bicycle facility design and trail design are among the topics addressed, with various levels of detail.

Students are advised to consult standard engineering texts for specific details regarding the analytical basis and methodiological techniques for traditional transportation analysis procedures such as transportation modeling, traffic engineering, safety analysis, facility design, and project construction.

A variety of sources are cited and included in this document via references. Technical and commentary excerpts were selected from pertinent references for inclusion in this coursebook based on the relevancy of the material to the overall context of pedestrian and bicycle transportation. Some of these references were written from an advocate's perpective and may contain information that is opinion rather than fact. Inclusion of referenced material in this document does not constitute an endorsement of these individual views. Rather, this material has been included for the purpose of presenting diverse and relevant viewpoints with respect to planning and design of pedestrian and bicycle facilities.