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Connecting Students and the Community

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CONNECTING STUDENTS AND THE COMMUNITY

A bicycle and pedestrian planning and design course expands Portland State University's curriculum and involves students in community-based projects.

Issue

Nationwide, few university courses focus specifically on planning and design for pedestrian and bicycle facilities. Before this project, Portland State University had only one three-credit course on the subject, which did not provide adequate time to cover all aspects of bicycle and pedestrian transportation planning, policy, design and practice. Although the course provided a useful introduction to the topic and received excellent student reviews, faculty members saw a need to expand the curriculum to provide an opportunity for practical application of the theory and practice and increase the course's academic rigor.

This project broadened the course offerings on bicycle and pedestrian transportation by designing a two-credit lab course to let students apply the knowledge gained in the three-credit lecture class to real projects in their community.

Project

The project developed an applied lab course in bicycle and pedestrian design as an elective to accompany the existing three-credit lecture course. Lead investigator Lynn Weigand and instructor Mia Birk worked together to evaluate the existing course, identify gaps and develop the new course. This included refining learning objectives, selecting readings, creating course assignments and establishing evaluation methods. The concept was for students to apply the knowledge gained in the lecture course to a project in the community.

The first year the course was offered, the project focused on improving bicycle and pedestrian connections to the PSU campus. The class comprised 10 graduate and seven undergraduate students. Its primary clients were the campus transportation office and the city of Portland's Bureau of Transportation. Employees in these offices explained their challenges and goals to improve bicycle and pedestrian access to campus, led students on tours of the project area, shared

THE ISSUE

Few university courses focus on planning and design for pedestrian and bicycle facilities. Portland State University's only course on the topic didn't adequately cover all aspects of planning, policy, design and practice.

THE PROJECT

Lynn Weigand of Portland State University broadened course offerings by designing a two-credit lab course to allow students to apply concepts learned in the lecture course to projects in the community.

IMPLICATIONS

Materials developed for this project allow students to participate in project-based learning. The curriculum also provides a model for future course expansion on related transportation planning and policy topics.

MORE INFORMATION:

otrec.us/project/279

data from campus surveys and helped students collect bicycle count information.

The main component of the course was the final project. Students worked in teams to develop a problem statement, identify project stakeholders, recommend a public involvement process, develop evaluation criteria, evaluate alternatives and select a preferred alternative, and create a package of recommendations in the form of a grant application. The student teams presented their recommendations to a review board made up of representatives from the Oregon Department of Transportation, the Willamette Pedestrian Coalition, PSU, the city of Portland and the Initiative for Bicycle and Pedestrian Innovation.

The teams' projects demonstrated student knowledge and ability to apply bicycle and pedestrian planning and design principles to a real project scenario. The project recommendations were of high quality and had great potential for implementation. One student volunteered to package the recommendations from all the teams into a single report that was presented at the city's Bicycle Advisory Committee. Some of the recommendations were carried forward in Portland's Bicycle Master Plan.

Implications

The course received excellent reviews from students, who felt it was useful to apply the principles of bicycle and pedestrian design and planning to a real project environment. Given the positive feedback from the instructor and student experience, the course has the potential to be added permanently to the PSU transportation planning curriculum.

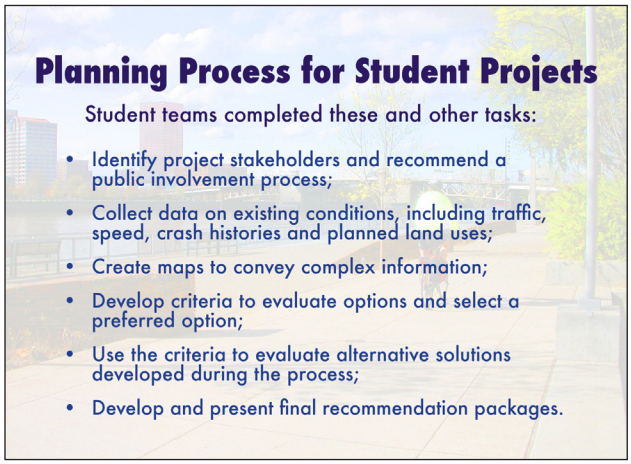

Figure: Student project planning process

The project developed a two-credit lab to supplement the existing three-credit bicycle and pedestrian design course. In its first year, the course focused on improving connections to the Portland State University campus.

The materials developed for this project expand the course content on bicycle and pedestrian travel and provide an opportunity for students to participate in project-based learning. This gives students valuable experience in applying theory, design and planning principles to transportation planning issues. This is useful preparation for professional positions in public- and private-sector planning. The department recognized the value of the course by offering it again during fall term 2009 and 2010.

The new curriculum provides a model for future course expansion on related transportation planning and policy topics. In addition, the curriculum can be shared and adapted for use by the University of Oregon's planning and landscape architecture departments and Oregon State University's College of Engineering.

PROJECT INFORMATION

TITLE: Bicycle and Pedestrian Design Curriculum Expansion

LEAD INVESTIGATOR: Lynn Weigand, Portland State University

PROJECT NUMBER: 2009-279

PARTNERS: Toulan School of Urban Studies and Planning, Portland State University; Alta Planning + Design

COMPLETED: February 2010

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