

## CP218 Transportation Planning Studio

Instructors – Elizabeth Deakin and Andrea Broaddus CCN: 13793

Units: 4

Time: MW 2-4P, 401 Wurster

Deakin Office Hours: W 1-2 or by appointment

Broaddus Office Hours: W 10-12 or by appointment

This transportation studio will generate background data and carry out analyses to help local officials plan transportation facilities and services and improve street designs in Priority Development Areas along two major corridors in Oakland: Telegraph Avenue and International Boulevard. Both streets are multi-modal, multi-use arterials, carrying a substantial load of through traffic – cars, buses, trucks, bikes - while at the same time serving as important pedestrian-oriented shopping and commercial districts at specific locations along the way. The studio will focus on the areas around the MacArthur and Fruitvale BART stations in Oakland, which also are Priority Development Areas slated for substantial increases in housing and other development. Depending on the size of the class and student interests, a third PDA on Telegraph Avenue in Berkeley may be included in the study, along with the Oakland-Berkeley transportation connections.

The clients for the studio are Jamie Parks, Complete Streets Program Manager for the City of Oakland, and BART Director Robert Raburn, whose district includes the MacArthur and Fruitvale BART stations. Issues that they would like to see addressed are as follows:

**Travel patterns to and within the commercial districts under study:** What modes of transportation do current employees in these commercial districts use to get to work? How do shoppers get to the shopping districts, and what is their pattern of activities there? How do residents of the district travel to work and shopping, and what are their destinations? How does actual vehicle trip generation compare to ITE rates? Are there differential patterns of activity (including frequency of shopping, types of goods purchased, amounts spent) that vary with mode of travel? Are there particular uses that are more/less car dependent than others?

**PDA /TOD implications for travel:** Given the amount and type of development planned for the PDAs, and the likely socioeconomic and demographic characteristics of the residents, what kinds of businesses are likely to locate in the study areas in the future? From a transportation perspective, what are the implications of the plans and changes? Are the densities being planned sufficient to support a thriving retail district and to generate robust BART ridership? How many cars are likely to be owned by residents and how much parking is likely to be needed in the district? What innovative strategies could be used to reduce the demand for cars and parking?

**Stakeholder perspectives about transportation needs:** How do merchants and other business owners/managers view the transportation needs of their enterprises and the district? How do customers,

clients and local residents view their transportation needs? What about through travelers (drivers, bus riders, BART patrons, cyclists, pedestrians, delivery services)? How do stakeholder views square with actual data on travel in the corridor and area? Given planned development in the area, might we expect perspectives on these issues to change and if so how?

**Street design considerations:** Given mode choices and trip rates, now and in the future, as well as stakeholder preferences, what tradeoffs must be considered in street design to better serve the districts? What changes would various stakeholder groups like to see? How do stakeholders prioritize or weight the various space trade-offs (e.g., parking vs bike lane vs. outdoor dining area along the sidewalk) when given the opportunity to choose? What policy changes might be needed to implement cost-effective transportation plans and programs for the study areas?

Students will work with background policy documents, consultant reports, and existing data sets and also will collect original data through fieldwork, surveys and interviews. . They will be expected to draw upon previous coursework and to learn from, evaluate, and build upon existing research papers, consultant reports, and policy documents. Through individual assignments and team work, students will develop fact-based recommendations and transportation policy advice for the City and for BART.

**Tasks to be Carried Out and Preliminary Schedule:** Working individually and in groups, students will (1) independently assess the issues and identify opportunities for the study areas, based on site visits, critical review of previous studies, and identification and analysis of precedents from other areas (weeks 1 and 2) (2) develop a work plan that can be carried out using available data together with new data that can be collected and analyzed by the group in the time available (week 3); (3) design and implement surveys and other field data as required, analyze the data and come up with design and policy proposals that are data-driven (weeks 4-8); (4) refine analyses, do follow-up data collection and analysis as needed, develop and refine proposals (weeks 9-13/14); (5) present findings and recommendations to the clients, other interested parties (e.g., AC Transit, East Bay Bike Coalition), and subject area experts, making brief oral presentations and presenting conference style posters (mid-term week 8/9, and final last week of class or the week thereafter (to be scheduled); and (6) prepare a succinct report on the work performed: a statement of the problem, study approach/methods used, findings, and recommendations (due one week after presentation.)

**Learning Objectives:** Students will learn how to go from a general request for a study to a work program (proposal) that can be carried out in the time and with the resources available. They will gain experience in in site analysis and in the use of precedent to inform planning efforts. They will learn how to critically evaluate the data and studies done by experts in the field, identify gaps, and design data collection efforts to fill the gaps and enhance knowledge of the problem/ situation and potential solutions/ ways forward. They will have the experience of designing and carrying out surveys and interviews. Finally, they will learn how to extract clear planning and policy recommendations from the findings, and will have the experience of presenting their work for client and stakeholder review and critique and writing it up into a professional paper or report. Along the way, they will learn how to

manage a project team to make effective use of team member strengths and work out difficulties that may arise.

**Work Load In and Out of Class:** The studio has two two-hour sessions scheduled each week and students are expected to attend and participate in each session. Some sessions will include presentations and discussions by the instructors and invited guests; other sessions will be devoted to team work on particular tasks (e.g., survey design) still other sessions will involve review of student progress. From time to time students will be released from class to do field work. In addition to the formal class time, students should expect to spend about eight additional hours each week on study design, field work (surveys, interviews, observations), analysis and writing tasks, i.e., the 4 unit course implies about 12 hours of work each week.

**Readings:** There is no reader for the course However, background readings, links to reports and project websites, travel data, etc. will be posted on both bspace and bcourses and updated from time to time, and students will be expected to familiarize themselves with these materials.

**Grades:** There will be no exams. Grades will be based on class participation (30%), individual contributions (30%), and team results (40%).