PPD 553L: Transportation Studio  
Spring Semester 2015

Understanding Urban Freight and Developing a Sustainable Business Model for Container Chassis/Rolling Stock Operations in the San Pedro Bay Ports Complex

Thursday 6:00 to 9:20 pm  
Classroom: VPD 107

Lecturer: Eric C. Shen, P.E., PTP

Office Hours & Location:  
Thursday 5:00 to 6:00 pm (by appointment)

Contact Information:  
(626) 429-9004 (cell/text); (562) 283-7180 (Work)  
shen.eric@gmail.com (main); ericshen@usc.edu (alt.)

Course Objectives:

- Gain thorough understanding of goods movement and its impact on transportation planning practice, infrastructure development, and traffic operations in urban regions
- Examine current practice of ocean container chassis operations in the context of on-going congestion at ports
- Develop a sustainable business model for Container Chassis/Rolling Stock Operations in the San Pedro Bay Ports Complex

References:

- California Freight Mobility Plan (http://dot.ca.gov/hq/tpp/offices/ogm/cfmp.html)
- SCAG Freight Works (http://www.freightworks.org/Pages/default.aspx)
- LA Metro Multi-County Goods Movement Action Plan (http://www.metro.net/projects/mcgmap/)
- NCFRP Report 16: “Preserving and Protecting Freight Infrastructure and Routes”
- NCFRP Report 19: “Freight Trip Generation and Land Use”
- NCFRP Report 24: “Smart Growth and Urban Goods Movement”
- “Ninety Percent of Everything – Inside Shipping: The invisible industry that puts clothes on your back, gas in your car, and food on your plate”. Rose George.
- TRB Special Report 297: Funding Options for Freight Transportation Projects

Additional reading materials will be assigned throughout the course
Course Description

This course is structured to reflect a “real-world”, task-oriented, and turnkey consulting project. Students will apply their planning theories, working knowledge, and conduct themselves in an environment that mimics the professional workplace. Through reading, presentations and lectures, students will gain thorough understanding on goods movements and its impacts on transportation planning practices. Students will review a wide range of technical practices, policies, standards, regulatory constraints, and land use and zoning practices at various levels of governments that affect freight moves.

Each week students will review a specific topic related to goods movement as outlined in the following schedule. Each student will submit a technical memorandum and participate in subsequent student-led discussions in-class.

After acquiring thorough understanding on goods movement and its impact on transportation planning practice, infrastructure development, and traffic operations in urban regions, students will examine the current practice of ocean container chassis/rolling stock operations in the U.S. based on the findings and recommendations in the NCFRP Report 20.

Students will be working in pre-assigned design groups to develop a sustainable business model for Container Chassis/Rolling Stock Operations in the San Pedro Bay Ports Complex. The Port of Long Beach is expected to release a Request for Proposals (RFP) for establishing a sustainable container chassis business model. Each group will review, research, and respond to the RFP. At the conclusion of this course, guests may be invited to the review and judge each group’s proposal.

Expected Deliverables (mostly to be submitted electronically in PDF Word format)

- Individual reports
  - Summary reports are due by noon (12:00 PST/PDT) via email. Late submission will result affect your grade on that assignment.
  - While there is no page limit or required format/style, students may follow the attached sample technical memorandum. Each report MUST be comprehensive and complete, that is, it must clearly outline the problems, background information, current issues, recommendations (or conclusion).
  - Each file shall be named in the following convention:
    PPDS31S15.Lastname.FirstnameInitial.subject.pdf
    For example, the first individual report is on “congestion”. Rebecca Chung would name her submission as: PPDS31S15.ChungR.Congestion.pdf

- Group reports
  - Each submittal is by noon (12:00 PST/PDT) via email. Late submission will result affect your grade.
  - Team Org Chart and responsibilities
  - 30% complete draft proposal
  - 70% complete draft proposal
  - Final Draft Proposal
  - Final Proposal

1 The TRB through the National Academy of Sciences (NAS) grants permission to use material from NCFRP Report 20: Guidebook for Assessing Evolving International Container Chassis Supply Models in PPD 531L Planning Studio (Spring 2015). Permission is given with the understanding that inclusion of the material will not be used to imply Transportation Research Board, AASHTO, Federal Highway Administration, Transit Development Corporation, Federal Transit Administration, Federal Aviation Administration, or Federal Motor Carriers Safety Administration endorsement of a particular product, method, or practice.
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<tr>
<th>Lec#</th>
<th>Date</th>
<th>Course Presentations/Contents</th>
<th>Individual Report(s) Due</th>
<th>Group Report(s) Due</th>
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| 1    | 1/15/2015 | Course Overview  
Self-Intro  
Presentation: “The Big Picture”                                                           | Self-intro                  |                     |
| 2    | 1/22/2015 | Presentation: “The Big Picture” (cont.)  
Who are the players?  
- Modes/Interconnectivity  
- Domestic vs. international  
- Import vs. export       | Summary Report 1:  
Current congestion at seaports: Background, Issues, Involved Parties. Do not offer solutions |                     |
| 3    | 1/29/2015 | Current Freight Conditions:  
Freight System Assets, Condition, Performance at federal, state, MPOs, and levels       | Summary Report 2:  
Freight planning entities by modes and jurisdictions. Summarize each agency’s roles and responsibilities. |                     |
| 4    | 2/5/2015  | Freight Issues (Part 1)  
- Economic Impact  
- Who benefits? Who pays?                              | Summary Report 3:  
True costs of POLA/POLB lock-out in 2005.                     |                     |
| 5    | 2/12/2015 | Guest lecturers  
Ms. Jolene Hayes, Sr. Freight on Supply Chain Trends (Confirmed)  
Mr. Malcolm Daugherty, Caltrans Director (Confirmed)  
Freight Issues (Part 2)  
- Current transportation/land use planning practice | Summary Report 4:  
“Just in-time” v. “Hub and Spoke” Supply Chain Models. Implications regional/local planning |                     |
| 6    | 2/19/2015 | Guest Lecturer (Confirmed)  
Annie Nam, Goods Movement Manager, SCAG  
Freight Issues (Part 3)  
- Policy  
- Federal vs. State vs. MPOs  
- How to pay? Who should pay?  
- How to distribute funds?     | Summary Report 5:  
Freight provision in MAP-21, roles of National Freight Advisory Committee, and California Freight Advisory Committee |                     |
| 7    | 2/26/2015 | Guest lecturer (Invited)  
Mr. Will Kempton, Executive Director, California Transportation Commission  
Freight Issues (Part 4)  
- Technologies & Big Data  
- How to pay? Who should pay?  
- Who is in charge                      | Summary Report 6:  
Automation or technologies used to move freight |                     |
| 8    | 3/5/2015  | Guest lecturer (Invited)  
Mr. Dick Steinke, Ports Practice Leader Moffatt & Nichol  
Summary Report 7:  
Comparison of Health Risk Assessment vs. Health Impact Analysis |                     |                     |
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<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Notes</th>
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| 9    | 3/12/2015  | Guest lecturer (Confirmed)  
Alex Cherin, Harbor Trucking Association  
Insight of port drayage and container chassis | Team Org Chart and responsibilities                                    |
|      |            |                                                                      |                                                                      |
|      | 3/19/2015  | Spring Recess  
No lecture                                                                                   |                                                                      |
| 10   | 3/26/2015  | Chassis Supply Models  
Case Study: Port of Long Beach Chassis Supply Request for Proposals | TOC, intro, and bibliographic min.                                      |
| 11   | 4/2/2015   | Chassis Supply Models  
Case Study: Port of Long Beach Chassis Supply Request for Proposals | 30% complete draft report                                              |
|      | 4/9/2015   | Field Trip/Chassis Yards on 4/3/2015?  
No lecture – Make-up course to be determined | 70% complete draft report  
(methodologies, prelim recs, etc.)                                      |
| 12   | 4/16/2015  | Chassis Supply Models  
Case Study: Port of Long Beach Chassis Supply Request for Proposals | Lecturer’s comments revised draft report returned to each team           |
| 13   | 4/23/2015  | Team presentations                                                                 | Submit presentation files  
Submit Final Report                                                       |

Grading Breakdown

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<tr>
<th>Category</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Individual Reports &amp; Write-up</td>
<td>40%</td>
</tr>
<tr>
<td>Group Reports</td>
<td>25%</td>
</tr>
<tr>
<td>Final Presentation</td>
<td>25%</td>
</tr>
<tr>
<td>Course-wide Participation</td>
<td>10%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
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Relevant Documents & Resources

Note to students: Please do not solely rely on Wikipedia for reference. You may have to contact each city’s planning or transportation departments to retrieve information. That is the part of your “real-world” training.

Lecturer’s Expectations

Please participate in course discussion enthusiastically; communicate with me (in person, via email or phone call) openly; respond to my assignments/inquiries promptly; and collaborate/coordinate/cooperate with your team members. These are fundamental skills in work place.

Statement on Academic Conduct and Support Systems

Academic Conduct
Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Section 11, Behavior Violating University Standards https://scampus.usc.edu/1100-behavior-violating-university-standards-and-appropriate-sanctions.

Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Discrimination, sexual assault, and harassment are not tolerated by the university. You are encouraged to report any incidents to the Office of Equity and Diversity http://equity.usc.edu or to the Department of Public Safety http://capsnet.usc.edu/department/department-public-safety/online-forms/contact-us. This is important for the safety of the whole USC community. Another member of the university community – such as a friend, classmate, advisor, or faculty member – can help initiate the report, or can initiate the report on behalf of another person. The Center for Women and Men http://www.usc.edu/student-affairs/cwm/ provides 24/7 confidential support, and the sexual assault resource center webpage http://sarc.usc.edu describes reporting options and other resources.

Support Systems
A number of USC’s schools provide support for students who need help with scholarly writing. Check with your advisor or program staff to find out more. Students whose primary language is not English should check with the American Language Institute http://dornsife.usc.edu/ali, which sponsors courses and workshops specifically for international graduate students. The Office of Disability Services and Programs http://sait.usc.edu/academicsupport/centerprograms/dsp/home_index.html provides certification for students with disabilities and helps arrange the relevant accommodations. If an officially declared emergency makes travel to campus infeasible, USC Emergency Information http://emergency.usc.edu will provide safety and other updates, including ways in which instruction will be continued by means of blackboard, teleconferencing, and other technology.