

WANTED:

Talented, hardworking graduate student prospects to become USF National Center for Transit Research (NCTR) Graduate Research Assistants

NCTR, in conjunction with the University of South Florida (USF) Department of Civil and Environmental Engineering, is seeking candidates for several graduate assistantship positions. Selected applicants will pursue a master's degree in Civil and Environmental Engineering. This 16-month program of coursework and experiential learning assignments will produce a master's degree focused on transportation with particular emphasis on public transportation.

Selected outstanding applicants will complete a 30-credit-hour program of coursework and participate in research assistantship and/or internship assignments. Seminars, conference travel, mentoring by senior transportation research and teaching faculty, and networking with fellow students will round out the program.

This is a unique opportunity for highly-motivated and successful undergraduates to pursue a master's degree with strong financial and mentoring support.

Detailed program information and instructions for applying are shown below.



All Aboard!

Head for Career Opportunities That Move You



Selection Criteria

Successful candidates must be accepted as a graduate student in the USF Department of Civil and Environmental Engineering. Admission criteria include successfully completing an undergraduate engineering or equivalent technical degree and having satisfactory scores on the Graduate Record Examination (GRE).

For more information on the criteria and links to the application process, see <http://www.grad.usf.edu/graduate-admissions.php>. An application checklist is available at <http://www.grad.usf.edu/graduate-admissions-checklist.php>

In addition, applicants for graduate internship appointments must provide the following: 1) two letters of reference from persons who can speak to your career plans and motivations as well as your capabilities; 2) an essay of 500 to 1,000 words addressing why you are particularly interested in a career in public transportation; 3) a resume or descriptive material identifying your education, work, extracurricular, or other experiences that make you a strong candidate for such an appointment.

These materials should be directed to Steven E. Polzin, Ph.D., at the National Center for Transit Research and must be submitted electronically to polzin@cutr.usf.edu.

Application materials can be submitted at any time for consideration in a subsequent semester. To ensure consideration of your application for Fall semester enrollment, please have your admissions materials submitted by May of that year.

Why USF?

- USF provides an engaged, interdisciplinary, learner-centered environment—we prepare our students to be the transportation industry's future workforce.
- Senior researcher faculty have decades of experience working at transportation operating agencies, consulting firms, and planning authorities—our research is based on real-world understanding of the issues, opportunities, and limitations.
- We have an extensive network of industry connections—we can help you find a well-paid career in transportation after you graduate.
- We have a broad range of in-house capabilities to address the complex problems facing communities today—you will have access to 40 full-time researchers at the Center for Urban Transportation Research (CUTR) who have diverse backgrounds in engineering, finance, economics, public administration, urban planning, geography, computer science, and marketing.
- We are committed to research and scientific discovery, including the generation, dissemination, and translation of new knowledge across disciplines—numerous opportunities exist for students to travel to conferences, participate in webinars, and publish research results.

About USF

<http://www.usf.edu/>

- The University of South Florida is a high-impact, global research university dedicated to student success.
- USF is a Top 50 research university among both public and private institutions nationwide in total research expenditures, according to the National Science Foundation.
- Serving nearly 48,000 students, the USF System has an annual budget of \$1.5 billion and an annual economic impact of \$4.4 billion.
- USF is a member of the American Athletic Conference and a Charter Member Institution of the National Academy of Inventors. HYPERLINK "<http://www.usf.edu/>" www.usf.edu

About CUTR and NCTR

<http://www.cutr.usf.edu/>

<http://www.nctr.usf.edu/>

- USF's Center for Urban Transportation Research (CUTR), established in 1988, is an internationally recognized resource for policymakers, transportation professionals, and the public.
- CUTR provides high quality, objective expertise in the form of insightful research, in-depth policy analysis, comprehensive training and education, and effective technical assistance that translates directly into benefits for CUTR's project sponsors.
- CUTR's faculty of 40 full-time researchers combines academic knowledge and extensive "real world" experience in developing innovative, implementable solutions for all modes of transportation. Over a dozen faculty members have worked in prominent positions in public transportation agencies. CUTR faculty also serve on over 40 committees of the Transportation Research Board and the American Public Transportation Association.
- The multidisciplinary research faculty includes experts in economics, planning, engineering, public policy, and geography. CUTR carries out an average of over \$10 million annually in transportation research for clients at the local, state, and national levels.
- CUTR is the home to the National Center for Transit Research (NCTR) and the National Bus Rapid Transit Institute (NBRTI). NCTR is the largest university-based public transportation research center in the world and has been a federally-funded University Transportation Research Center since 1991. USF is the only university in the country to have been successful in every competition for the USDOT's Tier I University Transportation Center designation since 2002. CUTR is an ex-officio member of the Board of Directors of the Florida Public Transportation Association.

About the USF CEE Department

<http://ce.eng.usf.edu>

- The Department of Civil & Environmental Engineering at the University of South Florida includes 27 faculty members, 254 junior and senior undergraduate students, and 190 graduate students, including 70 doctoral students.
- The CEE Department currently has 5 faculty members in Transportation.
- USF CEE students have opportunities to collaborate with colleagues in complementary programs including Urban and Regional Planning, Business, Public Administration, Architecture, the Colleges of Medicine and Public Health, the Clean Energy Research Center (CERC), and initiatives of the Patel School of Global Sustainability.

About Tampa and Florida

http://www.tampachamber.com/tampa_information.asp

- Florida is the third most populous state, with forecasted continued growth.
- The state has a dynamic economy, strong national and international tourism, and a diverse population of more than 19 million.
- Florida provides a diverse laboratory for transportation issues and research as the home to multiple metropolitan areas, 14 deepwater seaports, 19 commercial airports, 33 transit systems, multiple toll road agencies, and a vast system of transportation infrastructure.
- Public transportation in the state has been growing with new and innovative initiatives to meet the needs of a growing population. A diverse set of modes and service delivery options are being used to meet the needs of large urban, older adult, immigrant and tourist/visitor markets.
- USF's Tampa campus is located in an area known for pleasant weather, numerous Gulf Coast beaches, and a variety of cultural and recreational activities that provide an affordable and outstanding quality of life.

Degree Requirements and Course Plans

Three different degree programs are available: (1) Master of Civil Engineering (MCE), (2) Master of Science in Civil Engineering (MSCE), and (3) Master of Science in Engineering Science (MSES). MCE and MSCE are for those with a bachelor's degree in engineering. MSCE is for those with a non-engineering background. The MSCE and MSES degrees require a master's thesis.

Master of Civil Engineering (MCE)

Degree Requirements

- Requires a total of 30 credits of regular coursework and independent study.
- Does not require a thesis.
- Allows up to 12 credits outside CEE Department; students can take courses from other departments, such as Public Administration, Urban Planning, and Economics.
- Allows up to 6 credits of independent study on topics of interest and relevance to the degree program.
- Allows a maximum of two 4000-level undergraduate courses (6 credits).
- Must take 15 credits of coursework in the Transportation area.

MCE Course Plan

Fall

- Transportation Planning and Economics (3 credits, required course)
- Travel Demand Modeling (3 credits, required course)
- Traffic Systems Engineering (3 credits, required course)

Spring

- Public Transportation (3 credits)
- Elective #1 (3 credits)
- Elective #2 (3 credits)

Summer

- Independent Study on Topics Related to Public Transportation (3 credits)

Second Fall Semester

- Elective #3 (3 credits)
- Graduate Transportation Seminar (1 credit)
- Independent Study Topics Related to Public Transportation (2 credits)
- Elective #4 (3 credits)

Master of Science in Civil Engineering (MSCE)

Degree Requirements

- Requires a total of 24 credits of regular coursework and independent study and 6 credits of thesis.
- Allows up to 9 credits outside the CEE Department; students can take courses from other departments, such as Public Administration, Urban Planning, and Economics.
- Allows up to 6 credits of independent study on topics of interest and relevance to the degree program.
- Allows a maximum of two 4000-level undergraduate courses (6 credits)
- Must take 12 credits of coursework in the Transportation area.
- Requires a minimum of 6 credits of master’s thesis and successful defense of thesis before a committee.



MSCE Course Plan

Fall

- Transportation Planning and Economics (3 credits, required course)
- Travel Demand Modeling (3 credits, required course)
- Traffic Systems Engineering (3 credits, required course)

Spring

- Public Transportation (3 credits)
- Elective #1 (3 credits)
- Elective #2 (3 credits)

Summer

- Thesis (3 credits)

Second Fall Semester

- Elective #3 (3 credits)
- Graduate Transportation Seminar (1 credit)

- Independent Study Topics Related to Public Transportation (2 credits)
- Thesis (3 credits)

Master of Science in Engineering Science (MSES)

(for students with non-engineering backgrounds)

Degree Requirements

- Requires a total of 24 credits of coursework and 6 credits of thesis and any engineering prerequisite courses determined by the advisor.
- Allows up to 9 credits outside the CEE Department; students can take courses from other departments, such as Public Administration, Urban Planning, and Economics.
- Allows up to 6 credits of independent study on topics of interest and relevance to the degree program.
- Allows a maximum of two 4000-level undergraduate courses (6 credits).
- Requires a minimum 6 credits of master's thesis and successful defense of thesis before a committee.

MSES Course Plan

Fall

- Transportation Planning and Economics (3 credits, required course)
- Travel Demand Modeling (3 credits, required course)
- Traffic Systems Engineering (3 credits, required course)

Spring

- Public Transportation (3 credits)
- Elective #1 (3 credits)
- Elective #2 (3 credits)

Summer

- Thesis (3 credits)

Second Fall Semester

- Transportation and Land Use (3 credits, required)
- Graduate Transportation Seminar (1 credit)
- Independent Study Topics Related to Public Transportation (2 credits)
- Thesis (3 credits)

Electives

Electives can be chosen from the following list of courses offered in the CEE Department or from other departments, including Public Administration, Urban Planning, and Economics (based on student interests and discussion with the faculty advisor).

Electives Offered in the USF CEE Department

- Transportation and Land Use
- Access Management
- Aviation Transportation
- Discrete Choice Models of Travel Behavior
- GIS in Transportation
- Sustainable Transportation
- Intelligent Transportation Systems
- Transportation Safety
- Computer Applications in Traffic Engineering
- Traffic Flow Theory

Complementary Courses Offered in Other USF Departments (partial list)

- ARC 6397: Introduction to Urban Design
- ARC 5931: The City
- ECO 6505: Public Finance
- ECO 6525: Public Sector Economics
- ECP 6614: Urban Economics
- ECP 6624: Regional Economics
- PAD 5807: Urban & Local Government Administration
- PAD 6060: Public Administration Theory & Practice
- PAD 6227: Public Budgeting
- PAD 6307: Policy Analysis, Implementation and Program Evaluation
- PAD 6417: Human Resources Management



- PAD 6703: Quantitative Aids for Public Managers
- PAD 6336: Community Development Programs and Strategies
- PAD 6339: Housing & Public Policy
- URP 6100: Planning Theory & History
- URP 6111: Planning Policy & Politics
- URP 6232: Research Methods in Urban Planning
- GEO 5177: GIS for Non-Majors
- GEO 6704: Transportation Geography
- GEO 6111: Multivariate Statistical Analysis
- STA 5166: Statistical Methods I
- STA 6208: Linear Statistical Models



Financial Support

- Candidates accepted into the program are categorized as Graduate Research Assistants.
- As Graduate Research Assistants, candidates are eligible for in-state tuition rates.
- Approximately 80% of student tuition costs are covered by NCTR.
- Graduate Research Assistants can choose to receive health insurance provided through USF and whose costs are covered by NCTR unless they choose to remain on other existing health care coverage.
- Graduate Research Assistants receive competitive compensation and are on the USF payroll for 20 hours per week during the Fall and Spring semesters and 35 hours per week during the Summer. During NCTR research assistantship or internship assignments, students are employees of NCTR/USF but may have experiential learning assignments at various agencies or firms.
- Graduate Research Assistants are responsible for other student fees and costs associated with registering.
- Graduate Research Assistants are responsible for providing their own travel, housing, and related living expenses, including traveling to and from work internship assignments.
- NCTR will support up to \$2,000 towards travel to and from professional meetings or study site visit experiences.
- Students are responsible for all application costs and costs for travel to and from the University that are associated with visiting the campus and/or moving to the community.

The NCTR/CUTR Student Experience



2007 NCTR Student of the Year Monique Ellis at the CUTC Awards Dinner in Washington D.C. with former USDOT Secretary Norm Mineta



NCTR Graduate Research Assistant Kyle Taniguchi accepting an American Public Transportation Foundation Scholarship at the APTA Annual Meeting in New Orleans, October 2011.



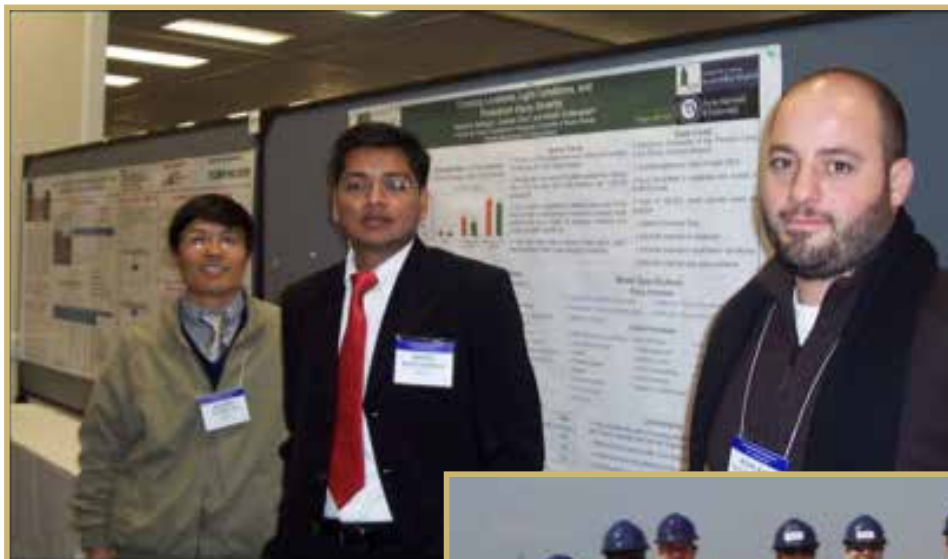
Martin Ackerman receiving the 2009 NCTR Student of the Year award from the USDOT RITA Administrator, Peter Appel.



An NCTR student receiving Segway instructions during a seminar.



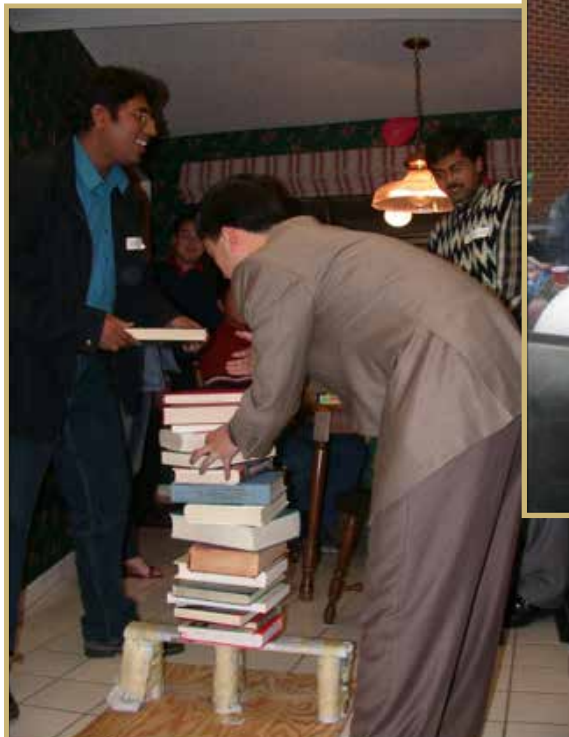
2013 NCTR Public Transit Graduate Research Assistants, Patrick Buddenbrock, (left), and Casey Jarrell, (right) review transit ridership trend data with Joel Volinski (center), NCTR Director.



NCTR students and faculty during a conference poster presentation.



USF's award-winning Institute of Transportation Engineers Student Chapter during one of many field trips.



Social activities include a student paper bridge competition and casual events with lots of food!



Attending seminars is an integral part of the NCTR learning experience.