



Graduate Transportation Design

Geoff Wardle
Executive Director,
Graduate Transportation Design

Art Center's Graduate Transportation Design program, introduced in the Fall of 2012, offers two tracks for those with passion and fresh perspectives on the automotive industry and the wider field of transportation and personal mobility. The Vehicle Track encourages creativity and strategic thinking beyond the sketchpad to impact the vehicle manufacturing industry. The Transportation Systems track applies design thinking to create better transportation solutions at a systems level, rather than at a product level.

Because design brings value well beyond the areas of product and service

This is a new program designed for those who will
redefine what compelling, sustainable and viable
transportation and mobility solutions will be
for an inspired future.

development, our curriculum encompasses a combination of design methodology, strategic innovation, systems thinking, customer-driven research and superior communication skills. The program's community of students—with prior degrees in subjects such as design, architecture, urban planning, business administration, engineering, anthropology and economics—brings diverse perspectives and precipitates the transdisciplinary culture that will be essential for advancing transportation design over the coming decades.

This innovative course of study will equip degree candidates to become agents of change across a broad transportation landscape, from design studios and manufacturers to organizations responsible for planning, implementing and delivering transportation systems solutions at the national, state and local levels.

Q & A

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What does this new Graduate Transportation Design program offer students?

Quite simply, a chance to participate in determining and designing a more innovative future of transportation. By approaching transportation design holistically through systems thinking, the work we do here aims to influence the definition of more compelling and sustainable personal mobility systems and inspired vehicles for moving people and goods within those systems.

Those are lofty goals.

Yet entirely realistic ones. By the time our students graduate, I'm confident they will be equally comfortable proposing ideas and solutions not just to the design community, but to senior levels of automotive corporate management, to city or community planners, and even to national policy makers if that's where they find themselves.

So where does it all start?

Entering students will decide on one of two curricular directions, choosing either the Vehicle Track or the Systems Track. Those who opt for the Vehicle Track will likely arrive with an undergraduate degree in Transportation Design already under their belt, and will probably be looking to enter or reenter the vehicle industry in the sphere of product development. Those who choose the Systems Track will be more interested in regarding transportation from a holistic viewpoint, not specifically designing vehicles or products to move people or goods around, but rather looking at designing transportation systems.

How does the Graduate Vehicle Track differ from an undergraduate approach to transportation design?

Students coming out of a top-tier transportation design program like Art Center's will unquestionably know how to design a vehicle or product already. Through their undergraduate work they will have become proficient, even expert at creating and presenting professional-level work, to the point where they will be ready to make an immediate frontline contribution to any company, as so many of our graduates do.

The questions that become paramount here, then, go beyond the shape of fender flares or whether the headlamps recall a cat's eyes. They are the questions that leaders of the transportation industries consider: Why should we make this vehicle? How does it fit into our product range? What does it do for our brand image? What value does it create for our consumer, and for us? Where does it take us as a company, and as a corporate citizen of the world?

Also, at the undergraduate level, the constraints of time and facilities require that students focus on solutions that are only assumed to work. In our program, students will be expected to experiment and investigate more deeply to prove that concepts do work. If, for example, a group of students come up with an idea for a new kind of small electric, urban mobility device, they should mock it up and see whether it works—or not, as the case may be. In an academic environment, discovering why something doesn't work can be as educationally valuable as proving that it does. And if it does, the next time our friends from Honda or Ford or Polaris, for instance, visit our campus, they'll have something revolutionary to zip around the parking lot in!

What about the Systems Track?

Whereas the vast majority of Vehicle Track applicants will probably have a prior transportation design degree, the Systems Track will appeal equally to design-oriented students and professionals with degrees in different fields—engineering, urban planning, public policy, industrial design, even business.

Systems Track students might look at how new forms of rapid transit integrate into the urban environment, or consider the future of local freight delivery systems—moving food or manufactured goods the last 10 or 15 miles of a potentially transcontinental trip. They might focus on research into the future of transportation technology, or local or national transportation infrastructure. But they will still learn to visualize and articulate solutions to transportation and transportation design challenges.

Is research an emphasis of the graduate program?

To whatever extent our students desire it to be, yes, and we encourage academic or theoretical pursuits. We're in the process of developing a TransLAB—a cooperative, multi-institutional, transdisciplinary research facility to examine crucial issues in the global pursuit of transportation design solutions. We envision TransLAB as something of an educational clearinghouse for relevant research among currently disparate institutional agencies and institutions. Moreover, through TransLAB, students and faculty alike will be able to devote themselves to in-depth pursuit of their own areas of interest within this, and related, fields—either as a part of or supplemental to their program of study.

Ultimately, where do you see your graduates working?

Beyond the automotive industry, where the value of advanced transportation design thinking is obvious, we hope to see our graduates in a broad range of organizations and professions—urban planning, transportation engineering, environmental and alternative energy companies or consultancies, to name a few. That design thinking can play a productive and prominent role in almost any industry is fast becoming a new paradigm, and our program will help fill the need for that unique perspective across a spectrum of enterprises.

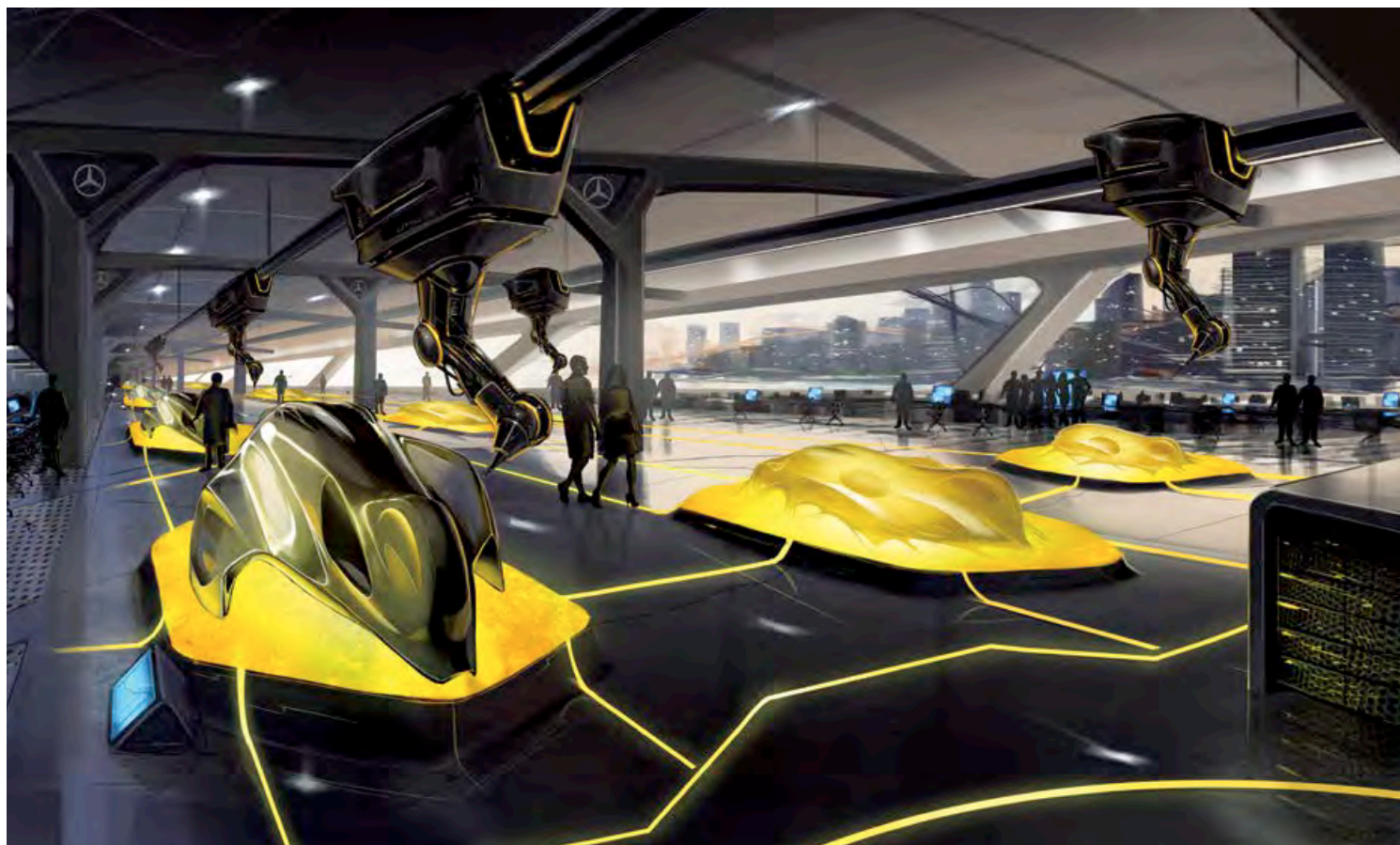
TITLE ROUTEMASTER 2012 / STUDENT GABRIEL WARTOFSKY
CLASS SENIOR THESIS / INSTRUCTORS MAREK DJORDJEVIC
 & DAVE HACKETT / PROGRAM TRANSPORTATION DESIGN



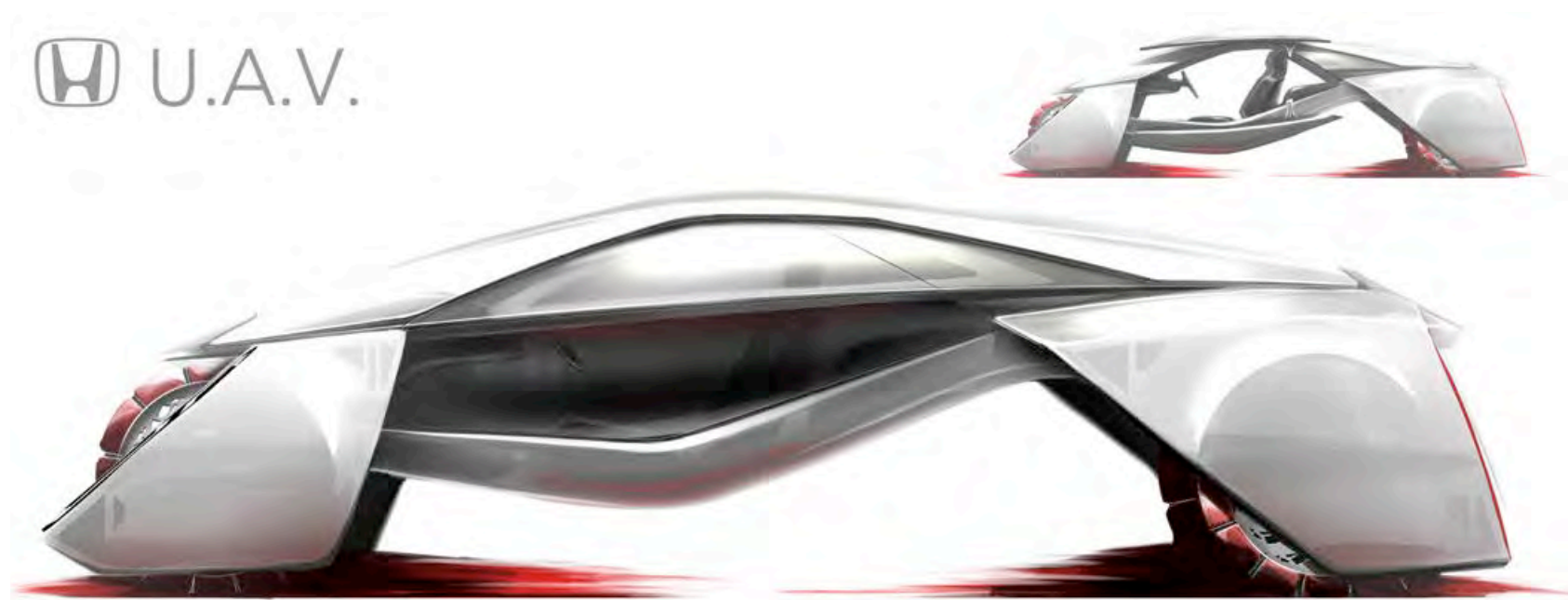
TITLE RAYMOND HILL 2034: URBAN ECOLOGY AND THE SELF-SUFFICIENT
 NEIGHBORHOOD / STUDENT MATTHEW R. CUNNINGHAM / CLASS ADVANCED DESIGN
INSTRUCTOR MARK GOERNER / PROGRAM TRANSPORTATION DESIGN



STUDENT CHRISTOPHER STEVENS / CLASS LIGHTWEIGHT VEHICLE
CONCEPT STUDIO / INSTRUCTORS DAVID O'CONNELL, GAZA LOCZI,
GABRIEL WARTOFSKY, CANDICE-LEIGH BAUMGARDNER & PAMELA
BLACKWELL / PROGRAM TRANSPORTATION DESIGN



STUDENT ANDREAS JUCABEK / CLASS LIGHTWEIGHT VEHICLE CONCEPT
STUDIO / INSTRUCTORS DAVID O'CONNELL, GAZA LOCZI, GABRIEL
WARTOFSKY, CANDICE-LEIGH BAUMGARDNER & PAMELA BLACKWELL
PROGRAM TRANSPORTATION DESIGN



STUDENT CHAN PARK / CLASS LIGHTWEIGHT PERSONAL MOBILITY DEVICE
INSTRUCTOR BUMSUK LIM / PROGRAM TRANSPORTATION DESIGN



Faculty

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Program of Study

GRADUATE TRANSPORTATION DESIGN — SYSTEMS		
TERM 1		
TRN-500	Vehicle & Transportation Product Development	1
TRN-501	Introduction to User Interface Design	1
TRN-502	Vehicle & Transportation Technology	1
TRN-503	Customer Centered Research	2
TRN-504	Transportation Histories & Futures Part 1	2
TRN-560	Visual Communications	3
TRN-561	Systems Design Studio Part 1	3
TRN-562	Digital Skills	3
TERM 2		
TRN-511	User Interface Design Studio Part 1	3
TRN-512	Future Scenarios Development	1
TRN-513	Professional Development & Strategic Presentation	2
TRN-514	Transportation Histories & Futures Part 2	1
TRN-515	Product Development & Manufacturing Technology	1
TRN-570	Visual Communication & Digital Skills	3
TRN-571	Advanced Systems Design Studio Part 2	3

TERM 3		
TRN-521	User Interface Design Studio Part 2	3
TRN-522	Design Strategy Studio	3
TRN-523	Professional Presentation	3
TRN-580	Strategic Systems Design Studio Part 1	3
TRN-581	Business & Politics of Delivering Transportation	1
TRN Electives		3
TERM 4		
TRN-601	Thesis Project Preparation	3
TRN-661	Strategic Systems Design Studio Part 2	6
TRN Electives		3
TERM 5		
TRN-611	Thesis Development Studio	6
TRN Electives		6
TERM 6		
TRN-615	Business & Product Development Studio	3
TRN-621	Thesis Development Studio	6
TRN Electives		3
Total Required Units		82

GRADUATE TRANSPORTATION DESIGN — VEHICLE		
TERM 1		
TRN-500	Vehicle & Transportation Product Development	1
TRN-501	Introduction to User Interface Design	1
TRN-502	Vehicle & Transportation Technology	1
TRN-503	Customer Centered Research	2
TRN-504	Transportation Histories & Futures Part 1	2
TRN-530	Visual Communications	3
TRN-531	Concept Design Studio Part 1	3
TRN-532	Digital Skills	3
TERM 2		
TRN-511	User Interface Design Studio Part 1	3
TRN-512	Future Scenarios Development	1
TRN-513	Professional Development & Strategic Presentation	2
TRN-514	Transportation Histories & Futures Part 2	1
TRN-515	Product Development & Manufacturing Technology	1
TRN-540	Visual Communication & Digital Skills	3
TRN-541	Advanced Concept Design Studio Part 2	3

TERM 3		
TRN-521	User Interface Design Studio Part 2	3
TRN-522	Design Strategy Studio	3
TRN-523	Professional Presentation	3
TRN-550	Strategic Prototype Design Studio Part 1	3
TRN-551	Business of the Vehicle Industry	1
TRN Electives		3
TERM 4		
TRN-601	Thesis Project Preparation	3
TRN-631	Strategic Prototype Design Studio Part 2	6
TRN Electives		3
TERM 5		
TRN-611	Thesis Development Studio	6
TRN Electives		6
TERM 6		
TRN-615	Business & Product Development Studio	3
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