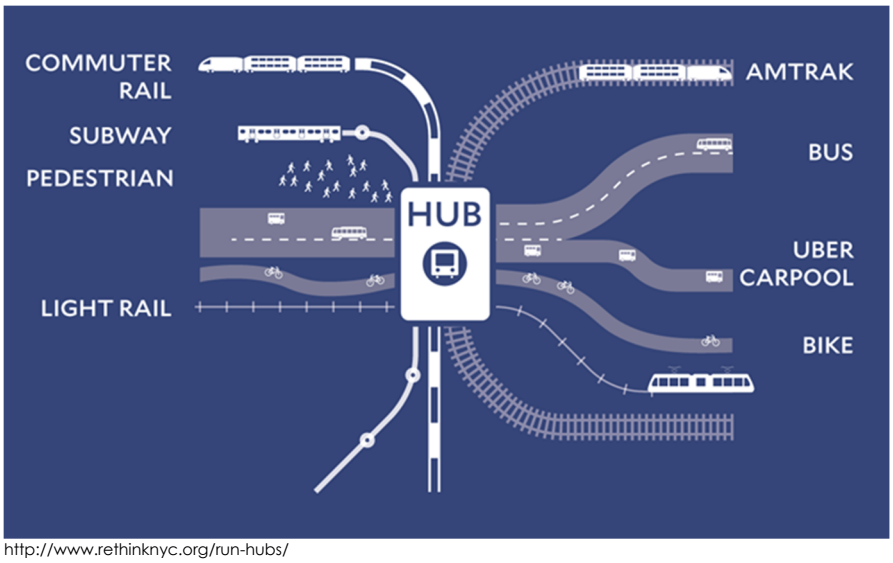
ARC 561R/ARC 696 ADVANCED DESIGN STUDIO **Spring_2019**
MW 1pm-5pm, F 1-3pm
Danelle Briscoe
GOL 4.134
Office hours: Monday 9-11am or by appointment
briscoed@utexas.edu

PREREQUISITES
Undergraduate: ARC 520E (formerly 520L) and ARC 520G (formerly 530T) with a grade of at least C and satisfactory completion of third-year portfolio review.
Graduate: Satisfactory completion of Vertical Portfolio Review.



http://www.rethinknyc.org/run-hubs/

FUTURE HUB: Multi-modal Transportation Station for the Houston-Dallas Corridor

The accumulative nature of our post-digital and post-natural moment materializes in the context of urban transportation. Considering the relations between society and technology, many see a multi-modal network as our interface, you are the cursor, and your smartphone as the input device. In other words, while massive amounts of ubiquitous personal GPS data records your physical activity, the system shares and delivers real-time travel information related to mobility routes. Critics such as Shannon Mattern however state that "a city is not a computer" and cannot be reduced to simply data and algorithms. This critique, along with that of the "Smartness Mandate", can then rightfully have great effect on the way we experience, practice and design architecture, not just the buildup of information in the urban extremities. How then does a multi-modal transportation hub serve as the nexus of such hierarchies and categories? A user based bottom-up version of the city still relies on the systems-based look at infrastructure. By looking more diligently at social optimization as well as physical, the users and the discrete objects that inhabit a multi-modal transportation hub can help better understand and improve the future of the whole of this network and its accumulative nature, devoid of its formal "architecture."

The studio agenda prompts a process for re-scripting of the use and facilities of Building Information Modelling (BIM) for "subjective visualization" at the urban and architectural/infrastructural scale. In general, a critical position with regard to BIM and transportation planning frames what is at stake in the practices it potentially advances. A promise for radical design work in a potentially lackluster realm of urban/regional transport planning suggests such newly needed forms of technique in addition to its collapsing of the everyday, the subjective and diverse possibilities to do with planning and technological reasoning.

This studio agenda works in conjunction with ongoing research afforded by the USDOT University Transportation Center and Center of Cooperative Mobility for Competitive Megaregions (CM2). You will design a 30,000 SF multi-modal transportation hub, an established building typology that is a ripe candidate for redefinition and reinvention, or "infrastructural imaginary". To create a new design approach that maximizes human potential, the project will be thought through its inhabitation, including diverse populations and communities, the facilitation of public-private partnerships for freight mobility planning and operation efficiency, along with advanced thinking of the future of self-driving transportation networks. As Dan Doctoroff, Founder of *Sidewalk Labs*, suggests, "What would a transportation hub look like if you started from scratch in the internet era--if you built a city 'from the internet up?

The Houston-to-North Texas High-Speed Railroad Corridor, a speculative project attracting interest from global providers, brings a new industry to Texas that offers a choice beyond traffic-clogged roads and the hassles of airline travel. The studio site will be located at the designated HSRC station in the urban context of downtown Dallas. The studio allows students to complete the conceptual development of a building with consideration of structural, mechanical, electrical, and site integration needs while simultaneously designing an exemplary work of architecture. This project is not only about refining and fulfilling programmatic requirements, but also enhancing the experience of the city through engaging the body in space, and expressing the relationship of site and building spatially, materially, and tectonically.

Lastly, in October 2018, Texas Central named global railway company *Renfe* as its high-speed train operating partner. *Renfe* is one of the world's most significant railways operators, running 5,000 trains daily on 7,500 miles of track. The company is integral to the transport system in Spain, its home base, handling more than 487 million passengers and 19.6 million tons of freight moved in 2017. New York Policy Analyst, Benjamin Villanti, also reminds us that Madrid is a city that between 1995 and 2007 swiftly and cost-effectively upgraded its subway system, making it an example that other cities can learn from. For these reasons, the studio will travel and research the rail system in Spain, experiencing first-hand the *Renfe* HSR system from Madrid to Barcelona and back. This distance is comparable to the Houston-Dallas Corridor.

SCHEDULE

January 30	Site visit to Dallas
February 6	Exercise 1 review
February 11-15	Design Research Week to Spain
March 11	Exercise 2 Review
March 27-29	Danelle Away at ACSA Conference
April 15th	Mid-Review
May 8-10th	Final Review

LEARNING OUTCOMES

Students have been exposed to the following learning objectives in previous semesters. The level of expectation will continue to grow as students further develop each competency. Some issues would only be mentioned in passing in one studio but will be studied in more depth in another.

- *Design Composition Skills*: Developed through three-dimensional architectural form and space, both exterior and interior; building envelope
- *Design Integration Skills*: Demonstrated through creative engagement with issues of materiality, structures, construction, and environmental system
- *Site Analysis and Design*: Developed through the creative engagement with relevant contextual; environmental and programmatic factors underlying the project
- *Critical Thinking*: Quality of conceptual and critical thought; learning from precedents; research skills, critique of the "Smartness Mandate" (Halpern, et.al.)
- *Graphic Skills*: Exploration and experimentation with graphic presentation; clarity of communication; appropriateness of media strategy and level of skill displayed
- *Collaborative and Leadership Skills*: Demonstrated through the active engagement in all activities of the studio

PROGRAM

Amtrak block		9,000SF
Waiting Room		10,000
WCs public		1,500
Mechanical/Storage		2,000
Retail (break down TBD)		5,000
Other		2,500
	OVERALL	30,000SF

Circulation at 15% of overall
Public Square
Parking 1 per 500 SF
Turnaround, drop-off (as per fire code BIM)

REFERENCEs

Villanti, Benjamin. *Subway Lessons from Madrid*. City Journal: Spring 2010. (https://www.city-journal.org/html/subway-lessons-madrid-13289.html)

Texas Central High-Speed Railway Last Mile Analysis Report. Dallas-Houston, Texas, High-Speed Rail Project Issue | March 27, 2015.

Weinstock, Michael. *System City: Infrastructure and the Space of Flows*. Wiley Press Ltd. 2013, pp14-23.

Halpern, Orit and Robert Mitchell, Bernard Dionysius Geohagan. *The Smartness Mandate: Notes toward a Critique*. Grey Room. Accessed 18 December 2018. https://doi.org/10.1162/GREY_a_00221

Shannon Mattern, "A City Is Not a Computer," *Places Journal*, February 2017. Accessed 18 December 2018. https://doi.org/10.22269/170207

Shannon Mattern, "Maintenance and Care," Places Journal, November 2018. Accessed 18 Dec 2019. <https://placesjournal.org/article/maintenance-and-care/>

It is required that at a minimum you have Revit 2019 on graphically capable laptop. Individual projects will have further defined expectations/requirements specified.

STUDIO CULTURE

The School of Architecture believes in the value of the design studio model. Studio learning encourages dialogue, collaboration, risk-taking, innovation, and learning-by-doing. The studio offers an environment where students can come together to ask questions and make proposals, which are developed and discussed among classmates, faculty, visiting professionals, and the public-at-large. Studio learning offers intensive one-on-one instruction from faculty members, and provides the opportunity for each student to develop his/her critical thinking skills and spatial and material sensibilities. The design studio offers a synthetic form of education, where project-based learning becomes the foundation for developing an understanding of and commitment to the school's core values — broadmindedness, interconnectivity, professionalism, exploration and activism — all in service of architecture's fundamental mission: to improve the quality of the built and natural environments.
https://soa.utexas.edu/programs/architecture/architecture-studio-culture

DESIGN CONVERSATIONS: JESSEN LECTURES

The School of Architecture offers a wide range of opportunities for students to extend the design conversations taking place in studios (Jessen Lectures, regular Lecture Series, Goldsmith Talks, Exhibitions, etc). Students are encouraged to participate and be engaged. The lectures and the group discussions in studio that follow are important for the holistic education of intellectually engaged students and participation will have an impact on students' grades (see below).

EVALUATION CRITERIA

While each project contains certain quantifiable elements for evaluation, a significant portion of each grade is derived from broader and more subjective criteria.

Student work will be evaluated according to its rigor and evolution over the semester. Grades are subject to deductions for late arrivals, absences, and late or incomplete work at the discretion of the instructor.

Grading for an assignment is broken into four components, each of which is given roughly equal weight:

Pursuit: the consistent and rigorous development and testing of ideas.

- The ability to formulate a query or thesis and pursue a self-determined concomitant method of inquiry
- The ability to identify and implement various processual mechanisms (software, sketch drawing and models, etc.) in the development of the design
- Initiative as demonstrated in work ethic – Does the student do what is asked; go beyond what is asked; direct their own efforts; eager to produce the next iteration of the design?

Grasp: the ideas and understanding of the project at hand and integration of knowledge introduced in companion courses.

- A strong and clearly stated design objective
- Spatial acuity as demonstrated in plan – including reasonable disposition of programmatic elements – and sectional development
- Synthetic and critical thinking; the ability to holistically organize a project as demonstrated through creative engagement with issues of materiality, structures and construction, structural and environmental system integration, building materials and assembly, sustainable practices, etc. in support of the design objective
- Structural competence and material sensitivity as demonstrated in wall thickness, floor plates, and assembly

Resolution: of the design objective; the demonstration of competence, completeness, and finesse in the final design presentation.

- Quality of presentation; clarity of communication; appropriateness of media strategy and level of skill displayed through the work presented at all stages of the design process; technical documentation

Engagement: the active participation in studio activities, leadership, collaboration, group discussions and reviews.

A student must earn a letter grade of C or better in order for the course to count towards a degree in the School of Architecture and to progress in to the next studio. A letter grade of C- will not satisfy degree requirements.

GRADE DESCRIPTIONS

A/A- **Excellent**

Project surpasses expectations in terms of inventiveness, appropriateness, visual language, conceptual rigor, craft, and personal development. Student pursues concepts and techniques above and beyond what is discussed in class. Project is complete on all levels.

B+/B/B- **Above Average**
Project is thorough, well presented, diligently pursued, and successfully completed. Student pursues ideas and suggestions presented in class and puts in effort to resolve required projects. Project is complete on all levels and demonstrates potential for excellence.

C+/C **Average**
Project meets the minimum requirements. Suggestions made in class and not pursued with dedication and rigor. Project is incomplete in one or more areas.

C-/D+/D/D- **Poor**
Project is incomplete. Basic grasp of skill is lacking, visual clarity or logic of presentation are not level-appropriate. Student does not demonstrate the required competence and knowledge base.

F **Fail**
Project is unresolved. Minimum objectives are not met. Performance is not acceptable. Note that this grade will be assigned when students have excessive unexcused absences.

X **Excused Incomplete**
Can be given only for legitimate reasons of illness or family emergency. Simply not completing work on time is not an adequate cause for assigning this evaluation. It may only be used after consultation with the Associate Deans' offices and with an agreement as to a new completion date. Work must be completed before the second week of the next semester in which the student is enrolling, according to the School of Architecture policy.

ATTENDANCE
Punctual and regular attendance is mandatory. Participation is expected. With three (3) unexcused absences, the student's final grade for the course will be lowered by a full letter grade. The final grade will be lowered by a full letter grade for each unexcused absence thereafter. Aside from religious observances, absences are only excused with written documentation of a medical issue or family emergency. The student is responsible for completing work missed due to excused absences and initiating communication with the instructor to determine due dates.

If a student is late (5 minutes after the start of class) three (3) times, it will be counted as one (1) unexcused absence. Students should notify the instructor prior to class if lateness or absence is known in advance. Students must notify instructors directly regarding lateness or absences; Asking a classmate to inform the instructor is not acceptable.

RELIGIOUS OBSERVANCES
A student shall be excused from attending classes of other required activities, including examinations, for the observance of a religious holy day, including travel for the purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy requires students to notify each of their instructors as far in advance of the absence as possible so that arrangements can be made.

By UT Austin policy, you must notify the instructor of the pending absence at least fourteen days prior to the date of a religious holy day. If you must miss a class, an examination, an assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

ACADEMIC INTEGRITY
Students who violate University policy on academic integrity are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on academic integrity will be strictly enforced. Refer to the Student Conduct and Academic Integrity website for official University policies and procedures on academic integrity: http://deanofstudents.utexas.edu/conduct/academicintegrity.php. University Code of Conduct: http://catalog.utexas.edu/general-information/the-university/#universitycodeofconduct

MENTAL HEALTH AND SUPPORT SERVICES
Taking care of your general well-being is an important step in being a successful student. If stress, test anxiety, racing thoughts, feeling unmotivated, or anything else is getting in your way, there are options available for help:

- In-house CARE counselor (see below)
- For immediate support
    - Visit/call the Counseling and Mental Health Center (CMHC):
      M-F 8am-5pm | SSB, 5th floor | 512-471-3515 | cmhc.utexas.edu
    - CMHC Crisis Line:
      24/7 | 512-471-2255 | cmhc.utexas.edu/24hourcounseling.html
- Free services at CMHC:
    - Brief assessments and referral services: cmhc.utexas.edu/gettingstarted.html
    - Mental health & wellness articles: cmhc.utexas.edu/commonconcerns.html
    - MindBody Lab: cmhc.utexas.edu/mindbodylab.html
    - Classes, workshops, and groups: cmhc.utexas.edu/groups.html

CARE PROGRAM
Counselors in Academic Residence (CARE) Program places licensed mental health professionals within the colleges or schools they serve in order to provide better access to mental health support for students who are struggling emotionally and/or academically.

Abby Simpson (LCSW) is the assigned CARE counselor for the School of Architecture. Faculty and staff may refer students to the CARE counselor or students may directly reach out to her. Please leave a message if she is unavailable by phone.

Abby Simpson, LCSW | BTL 114B | 512-471-3115 (M-F 8am-5pm)
https://cmhc.utexas.edu/CARE_simpson.html

STUDENTS WITH DISABILITIES
Students with disabilities who require special accommodations must obtain a letter that documents the disability from the Services for Students with Disabilities area of the Office of the Dean of Students (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). This letter should be presented to the instructor in each course at the beginning of the semester and accommodations needed should be discussed at that time.
http://diversity.utexas.edu/disability/

SECURITY, SAFETY, AND SUSTAINABILITY
The studio is an exceptional learning environment. Since it is a place for all, it necessitates the careful attention to the needs of everyone. All spraying of fixative, spray paint, or any other substance should be done in the shop. Security is a necessary component for a studio that is accessible to you and your colleagues 24 hours a day, 7 days a week. Do not leave your studio without your studio key and do not leave your studio unlocked. Hold yourself and your studio mates accountable for the security of your shared space.

The studio is an opportunity to apply sustainability principles, being mindful to recycle and reuse to reduce material consumption at UTSOA. Recyclable materials should be placed in blue bins or any other containers with white bags. The Material Exchange, a give-and-take system for students to donate materials and take what they need for studio and fabrication coursework, is available throughout the semester to all UT students in the UTSOA Technology Lab. All unwanted, reusable materials should be brought to the Material Exchange station in the Technology Lab at the end of the semester.

BCAL
Concerns regarding the safety or behavior of fellow students, Teaching Assistants (TA), or Professors can be reported to the Behavior Concerns Advice Line (BCAL): 512-232-5050. Calls can be made anonymously. If something doesn't feel right, it probably isn't. Trust your instincts and share your concerns.

EMERGENCY EVACUATION
In the case of emergency evacuation:

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.

- Students should familiarize themselves with all exit doors of each classroom and building they may occupy. Remember that the nearest exit door may not be the one used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class. In the event of an evacuation, follow the instruction of faculty or class instructors.
- Reentry into a building is prohibited unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services offices.

Information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency.