



DESIGN METHODS

"The design process is not linear but dialectic, taking the form of an argument between problem and solution...
Urban design method is an iterative process, cyclical in nature."
Cuesta, et al (2007: 8-9)

Method: n. 1 a particular procedure for accomplishing or approaching something.
-ORIGIN ME: via L. from Gk *methodos* 'pursuit of knowledge', from *meta-* (expressing development) + *hodos* 'way'.

Urban: adj. 1 relating to a town or city.
-DERIVATIVES urbanism n. urbanist n. **urbanization** or **urbanisation** n. **urbanize** or **urbanise** v.
-ORIGIN C17: from L. *urbanus* from *urbs, urb* – 'city'.
Oxford English Dictionary, Eleventh Edition, 2004

URBAN ARC5742

DESIGN METHODS

Instructor:

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Office hours by appointment

Schedule:

August 29, 2012 – December 21, 2012

Refer to http://www.ltu.edu/registrars_office/calendar_final_exam.index.asp for the last date to withdraw and other important registration related information.

Prerequisites:

Senior or Graduate Standing or Permission of Instructor

Catalog Description:

This course is an intensive lecture/discussion course that covers urban design and site planning techniques, methods and analysis on a micro scale that affords the student an opportunity to compare various approaches to specific issues.
2.000 Credit hours

Required Text:

Each student will obtain and read three primary texts for the seminar:

1. Brown, Lance Jay, Dixon, David, and Gillham, Oliver: Urban Design for an Urban Century: Placemaking for People. 2009: John Wiley & Sons, Inc.
2. Chopra, Aidan: Google Sketch Up 8 for Dummies. 2011: John Wiley & Sons, Inc.
3. Tal, Daniel: Google Sketch Up for Site Design: A Guide to Modeling Site Plans, Terrain and Architecture. 2009: John Wiley & Sons, Inc.

Available for online purchase through LTU Bookstore at:

<http://lawrence-tech1.bkstore.com/bkstore/TextbookSelection.do?st=489>

Web Resources:

<http://www.google.com/sketchup/training/> (Tutorials)
<http://www.google.com/sketchup/community/> (Free Stuff: Components / Galleries, Resources)
<http://citiwire.net/subscribe/>
<http://www.planetizen.com>
<http://americacity.org/>
<http://www.planning.org/>
<http://www.aia.org/>
<http://www.uli.org/>
<http://www.asla.org/>
<http://www.communitydesign.org>

Additional Resources:

LTU Online student resources: <http://www.ltu.edu/tuonline/>

Technical Support:

Technical support for using Blackboard is provided by the Helpdesk. Visit www.ltu.edu/ehelp or 248.204.2330 or helpdesk@ltu.edu. Send the Help Desk a form detailing any issues by clicking here <http://tinyurl.com/3yqrvne>.

Course Content | Instructional Methods:

Urban Design Methods is part of the m.U.D. Methods Sequence which is comprised of four [4] courses that feature the critical Urban Design "methods" (qualitative, quantitative, graphic, digital, etc.) that participants must gain through our m.U.D. curriculum. Participants will spend the semester focusing on both qualitative and quantitative methods. During the fall 2012 seminar, participants will focus on three critical methods – Public Process, Digital Methods, and Analytical Methods, through three course "modules":

+ **Engagement Methods:** participants will study both approach to and theory of public process, as well as specific techniques (charrettes, workshops, social media, etc.), and the facilitation of input and conflict resolution (stakeholders, different groups, etc.). Participants will investigate the organization and management of urban design projects (budgeting, scheduling, planning, decision making, etc.). In support of this and to reinforce learning, participants will engage in a "Chase an Urban Designer" exercise, during which participants will spend a half day with an urban designer working in the public, private or institutional sectors.

+ **Digital Methods:** participants will focus on representation of reality (existing environment at both a micro and a macro scale) and the generation of future scenarios through digital visualization, primarily using Google Earth Pro and Sketch Up Pro. Through gained computer skills participants will master and apply digital mass modeling, entourage, animation and quantification tools for conceptual + contextual methodological exercises.

+ **Analytical Methods:** participants will focus on how urban designers utilize relevant data and multifarious inputs from the urban design process to craft alternative directions. This will include an understanding of the environmental impact assessment and both quantitative and generative modeling (trends, future state, what is possible?) to create scenarios/alternatives. In support of this, participants will review survey and analysis techniques for existing conditions (incorporating photography, data, etc.); and evaluation techniques [critical thinking] including a 'SWOT' analysis for the description of impacts and benefits. Alternatives generated by participants will address form, programming, and implementation; and environmental, economic and social sustainability. Participants will also be expected to interpret relevant city data in Google Earth by projecting 3D analytical layers.

Throughout the fall 2012 semester, participants will consider how data collection (knowing how and where to find good, valid data [especially publically available, formatted data] whether numeric, map/spatial, literature/written) - is critically important to Urban Design Methods. Participants will emphasize telling a story with data and explore the use and analysis of data by identifying patterns and drawing conclusions.

Student Learning Objectives | Goals:

1. Improve your ability to raise clear and precise questions, use abstract ideas to interpret information, consider diverse points of view, reach well-reasoned conclusions, and test them against relevant criteria and standards.
2. Improve your understanding of the Western architectural canons and traditions in architecture, landscape and urban design, as well as the climatic, technological, socioeconomic, and other cultural factors that have shaped and sustained them.
3. Improve your understanding of parallel and divergent canons and traditions of architecture and urban design in the non-Western world.]
4. Gain awareness, knowledge, and skills related to critical Urban Design Methods (qualitative, quantitative, graphic, digital, etc.).
5. Understand the role of and techniques for, inclusive public process.
6. Gain specific digital skills and become proficient in the visualization of urban environments utilizing Google Earth Pro and Sketch Up Pro, etc.
7. Acquire the awareness, knowledge and skills necessary to generate a comprehensive urban design alternatives scenario and associated analysis.

Assignment Details:

Course assignments and evaluation criteria are detailed below. Please review these requirements carefully. See the section Academic Resources / Assessment Guidelines for information about assessment of written and oral presentations.

Please note that you should not submit any assignments to the Blackboard "Digital Drop Box." All assignments are submitted using the Blackboard "Assignments" or "SafeAssign" function. Some assignments are also posted to the Blackboard Discussion Forum for student comments.

Seminar Online Participation. Reading and Discussion:

Each student is expected to actively participate in online activities to discuss and share his/her thoughts on that session's reading from the required textbooks, or present the results of research exercises. The readings, research exercises, and discussion are integral parts of our collective inquiry into Urban Design Methods, and thus will constitute 25% of the grade.

During select week (refer to weekly schedule) each participant will engage in an online Blackboard Discussion. The discussion will be worth four (4) points broken down into the follow components:

1. Formulate a Question (1 point): Each participant will prepare one (1) question and post it to the Blackboard Discussion Board thread by Thursday of that Module. The question will relate to the topic of discussion during that module week.
2. Responses (2 points): Each participant is required to respond to two (2) questions posted by their classmates by Sunday of that Module. Points will be awarded based on the quality of response to the question. Each response should be approximately one (1) paragraph in length.
3. Substance | Creativity in Responses (1 point). The final point is awarded for responses to questions that advance the original question in a critical and creative manner.

Midterm Deliverable: Engagement + Digital Methods:

Each Student will participate in and document, based on specific guidelines supplied by the Instructors, their "Chase an Urban Designer" and "Workshop In A Box" exercise. Each participant will also turn in their digital methods lab work and will be graded on their level of expertise with the skills and techniques acquired during the Digital Methods module. The Midterm Deliverable/Presentation will constitute 40% of the final grade (Engagement Methods = 20%; Digital Methods = 20%).

Final Deliverable: Analytical Methods:

The final project will consist of synthesis of all knowledge gained throughout the seminar. Each student will research and generate a series of analytical alternatives for an award winning urban design case study described in and selected from the required texts. The new, speculative alternatives generated by participants will address form, programming, and implementation; and environmental, economic and social sustainability. The final deliverable will be a graphic brief/presentation is concerned with not only with illustrating the student's command of the critical urban design methods taught during the semester, but also with communicating the particular position the student has and the comprehensiveness and creativity of the possible alternative scenarios proposed. Thus, the Final Presentation will constitute 35% of the final grade.

Student Evaluation:

The course has three assignments totaling 75 points, and an online discussion forum totaling 25 points. Points are deducted for late assignments. *Note: Grades lower than a "B" fall below the LTU graduate standard*

Assignments	Points
Module 1 Assignment(s)	20
Module 2 Assignment(s)	20
Module 3 Assignment(s)	35
Online Discussion Participation	25
Total Points	100

Class Points	Letter Grade
96 and above	A
90 – 95	A-
87 – 89	B+
83 – 86	B
80 – 82	B-

77 – 79	C+
73 – 76	C
70 – 72	C-
61 – 70	D (Undergrad Only)
60 and below	E

LTU Academic Honor Code:

Academic integrity and honesty are basic core values of Lawrence Technological University. In carrying out its academic mission, Lawrence Technological University, like all universities, depends on the honesty and integrity of its faculty, staff, and students, and for this reason every member of the Lawrence Technological University community is charged with upholding the Academic Honor Code. Actions that breach the Code erode the trust of those who look to universities for honest evaluations of academic work arrived at through honest processes. Violations may also cause individual harm in that reports of performance made to post-graduate schools, professional societies, and employers would inaccurately represent a student's progress. Lawrence Technological University is committed to creating an academic community that values both individual and collaborative efforts that promote learning and discovery. Such a community expects honesty and integrity in the work of all its members. The Academic Honor Code speaks to the work of individual students within the community. It should not be construed as arguing against the important collaborations that also occur among students on campus.

Students, faculty, and staff are expected to follow established standards of academic integrity and honesty. Academic misconduct entails dishonesty or deception in fulfilling academic requirements and includes but is not limited to cheating, plagiarism, or the furnishing of false information to the University or a University affiliates in matters related to academics. An affiliate of the University is any person, organization, or company who works in conjunction with Lawrence Technological University for the purposes of assisting students in fulfilling their academic requirements. It is therefore this institution's stated policy that no form of dishonesty among its faculty or students will be tolerated. Although all members of the University community have an obligation to report occurrences of dishonesty, each individual is principally responsible for his or her own conduct.

Full text of the LTU Academic Honor code can be found at: http://www.ltu.edu/currentstudents/honor_code.asp

Plagiarism:

Before you start to accumulate notes for your research paper, ideas for your design project or share your project with a friend to help them out, ask yourself if you fully understand what constitutes plagiarism. At one extreme is the gross offense of trying to pass off as one's own the exact words of another; at the other extreme is the subtle matter of "borrowing" a fine phrase, drawing, or diagram to dress up one's own writing or project. Through ignorance a student may in all honesty misuse his/her sources in such a way that he is guilty of plagiarism; but he/she is nonetheless guilty.

An analogy to other kinds of dishonesty may help. To use another's words or ideas is roughly the equivalent of stealing the funds of a fraternity for one's own use. However, funds are made up of concrete money; words and ideas are abstract, and consequently the line between honest and dishonest use may be harder to define. There are, of course, correct and honorable ways of borrowing money. Forms of acknowledgment have to be included with your use of source material in the same way that legal forms have to be filled out before a bank will let you use its money.

Examine the following discussion of degrees of plagiarism:

1. Word-for-word plagiarism. This includes (a) the submission of another student's work as one's own; (b) the submission of work from any source whatever that is not properly acknowledged by parenthetical citation and/or reference in the paper itself; (c) the submission of any part of another's work without proper use of quotation marks.
2. Patchwork-quilt plagiarism. As our grandmothers used to put together large quilts out of scraps of cloth, a student may make the mistake of passing off as an original paper one that is stitched together from phrases and sentences taken from his sources. If he/she does not include quotation marks around all such borrowings, he/she is committing plagiarism. Mere rearrangements of phrases into a new pattern does not confer originality.
3. Unacknowledged paraphrase. An author's discovery of fact or original interpretation of fact is as much his property as his exact words are. Restatement by paraphrase means you must give credit to the original sources in parenthetical citations.

-- adapted from the Harbrace Guide to the Library and Research Paper, by Donald A. Sears, pp. 38-39.

From Lawrence Institute of Technology Catalog, pg 17:

"Academic dishonesty includes plagiarism, cheating, forgery, or other acts that deceive or defraud in regard to a student's own academic work or that of others. Questions of academic dishonesty are reviewed by the Dean of the School responsible for the courses in which they occur. When necessary, cases of academic dishonesty may be referred to the Student Discipline Committee. The usual penalty for academic dishonesty is failure in the course on the first offense and expulsion from the College on the second offense."

-- full text adapted from the LTU College of Arts & Science documents. More information and full text is located at:
http://www.ltu.edu/arts_sciences/humanities_ss_comm/plagiarism.asp

Retention of Student Work:

As noted in the University's undergraduate catalog, "all two and three dimensional drawings, as well as reports and other written studies submitted in satisfaction of any required or elective courses become the property of the University. When such work is kept, arrangements will be made for the student to receive suitable photographic copies as a record of his or her design work." Exemplary examples of student work may be retained for Open House, for accreditation visits, for Honors exhibitions, or as examples for future classes.

A Word on Graduate Courses:

Many students go through a bit of culture shock during their first graduate level courses. It should be recognized that there must be a significant difference between undergraduate and graduate level coursework. Graduate school is the first major step that students will take in transitioning from student to professional, and individuals making that journey must exercise a higher level of self-directedness than they have in the past. If the undergraduate years are when a student learns the tool of their trade, graduate education is the time when individuals develop the ability to perform as leaders in their chosen field of study. Graduate students often complain that instructions are 'vague', and compared to undergraduate coursework, they are. Beginning design students need tightly-structured project statements and submittal requirements, as they have not had the necessary experience to identify problems and the means to present their solutions. Practicing architects carry the responsibility to create the project program, and to determine what is needed to communicate their design ideas to the client and users. Graduate students are required to draw upon their experience to make significant decisions which will influence the scope of both the projects and the necessary level of communication. Expectations are higher, both in terms of student output and the level to which students are engaged in the form their education will take. The challenge is laid before you – it is time to take that step.

Course Schedule – Note: seminar schedule is subject to modification by your instructors:

This fully online course begins with a partial week online course orientation period to familiarize yourself with the online learning environment and to meet online or via the phone with your instructor. Each subsequent week starts on a Monday and ends on a Sunday.

Dates Module	Part	Topics / Readings	Assignments
+ Introduction Module 0		Overview of Course and Goals Online Learning Orientation	Discussion Board – Short Introduction
+ Engagement Methods Module 1 Aug 29 – Sept 2	Part 1	Professional Organizations	Discussion Board – Professional Organization Web Research
Sept 3 – Sept 9	Part 2	Engagement Techniques	Discussion Board – Engagement Techniques + Introduction to Chase an Urban Designer Assignment
Sept 10 – Sept 16	Part 3	Community Engagement Strategies, Techniques and Process: Precedent – ReThink London	Discussion Board - Each student must identify the Urban Designer and firm they will be shadowing.
Sept 17 – Sept 23	Part 4	Community Engagement Strategies, Techniques and Process: Precedent – ReThink London	Discussion Board - Workshop In A Box Exercise

Dates Module	Part	Topics / Readings	Assignments
+ Digital Methods Module 2 Sept 24 – Sept 30	Part 1	Introduction – Google SketchUp Interface Installing SketchUp “Pro” on computer.	Hands On Lab Workshop – Part 1
Oct 1 – Oct 7	Part 2	Modeling in Three-Dimensions	Hands On Lab Workshop – Part 2
Oct 8 – Oct 14	Part 3	Visual Enhancements and Quantification	Hands On Lab Workshop – Part 3
Oct 15 – Oct 21	Part 4	Presentation Techniques and Creating Animations	Hands On Lab Workshop – Part 4
Midterm Deliverable Oct 22 – Oct 28			“Chase an Urban Designer” Exercise + “Digital Methods” Labs DUE Discussion Board
+ Analytical Methods Module 3 Oct 29 – Nov 4	Part 1	Module Introduction Placemaking for People Text Readings – Chapters 1 + 4	Discussion Board – Chapters 1 + 4
Nov 5 – Nov 11	Part 2	Analyzing Data in 2D + 3D Placemaking for People Text Readings – Chapters 5 + 7 Installing Google Earth “Pro” on Computer	Each student must identify a case study (located in the Placemaking for People Text, Chapters 6 – 12) they want to use for their final assignment via Discussion Board + Discussion Board – Chapters 5 + 7
Nov 12 – Nov 18	Part 3	Developing Analytical Metrics Placemaking for People Text Readings – Chapter 9	Each student must arrange a 30 minute conference call with their instructor to discuss “analytical metrics” for final assignment. + Discussion Board – Chapter 9
Nov 19 – Nov 25	Part 4	Work Session	Discussion Board – Data and Analytical Metrics Identified and Discussed
Nov 26 – Dec 2	Part 5	Using Data and Analytical Metrics to Develop Logic Based Design Alternatives Sample Project Presented	Discussion Board – Progress Report
Dec 3 – Dec 9	Part 6	Placemaking for People Text Reading - Conclusion	Discussion Board – Conclusion + Discussion Board – Class Reflection
Dec 10 – Dec 16	Part 7	Work Session	Work Session
Final Deliverable Dec 17 – Dec 21			Final Graphic Brief Due

Blackboard Learning Environment: Blackboard at my.ltu.edu contains the syllabus, all assignments, reading materials, streaming videos, narrated PowerPoint mini-lectures, podcasts, written lecture notes, chapter quizzes, links to Web resources, and discussion forums. You will submit all assignments via Blackboard, and are expected to participate regularly in discussion topics. Please take time to familiarize yourself with the organization of the Blackboard site. You will want to check the site frequently for announcements reminding you of new resources and upcoming assignments.

Student/Instructor Conversations: Students keep in touch with the instructor via e-mail messages, telephone conference calls, and IM conversations.

Self-Assessments: Pre- and post- self-assessment tools will help students measure their entering skills and progress during the course.

Required Reading: Textbook chapters should be read according to the schedule outlined in the syllabus. Chapters will be discussed online.

Class Policies and Expectations:

I plan to offer you a valuable learning experience, and expect us to work together to achieve this goal. Here are some general expectations regarding this course:

Each student has a LTU email account. If you wish to use a different email address for this course, please **change your email address in Blackboard under "Blackboard Tools", then "Personal Information"** and send an email to me so I can store your address in my email directory.

Readings, discussion forum participation, and written assignments must be completed according to the class schedule. It is important to contact the instructor as needed to discuss personal needs regarding course requirements and assignments.

It is essential that all students actively contribute to the course objectives through their experiences and working knowledge.

All assignments must be submitted on schedule, via Blackboard, and using Microsoft Office compatible software. If you need to submit an assignment via email, contact the instructor in advance.

Assignments must be completed to an adequate standard to obtain a passing grade. Requirements for each assignment are detailed in this syllabus.

Be prepared to log into Blackboard at least once each day. Please focus your online correspondence within the appropriate Blackboard discussion forums so that your colleagues can learn from you.

At midterm and at the end of the course, you will be invited to participate in a University evaluation of this course. Your feedback is important to the University, to LTU Online, and to me as an instructor, and I encourage you to participate in the evaluation process.

It is important for you as students to know what to expect from me as your instructor:

- I will be available to you via e-mail and phone, and will promptly reply to your messages.
- I will be available to you for face-to-face appointments as requested.
- I will maintain the Blackboard web site with current materials, and will resolve any content-related problems promptly as they are reported to me.
- I will send out a weekly e-mail update to all class members to guide upcoming work and remind you of assignment due dates.
- I will return all assignments to you promptly, and will include individualized comments and suggestions with each assignment.
- I will hold our personal written or verbal communications in confidence. I will not post any of your assignments for viewing by the class without requesting your approval in advance.
- I will treat all members of the class fairly, and will do my best to accommodate individual learning styles and special needs.
- If any of these points need clarification, or when special circumstances arise that require my assistance, please contact me so that we can discuss the matter personally.

Practical Guidelines For Class Load Expectations:

A two-credit course generally requires at least six hours per week of time commitment. Here are some practical guidelines to help schedule your time commitments for this online course:

- A 14-week semester would require at least 84 hours of time commitment to successfully complete all readings, activities, assignments, and texts as described in this syllabus.
- You should reserve at least 4 hours per week to read the required textbook chapters and resources, participate in online discussions, review presentation materials, and work through online quizzes. This effort will total at least 54 hours over the course of the semester.
- You should organize your remaining time to roughly correspond with the point value of each major assignment.

These guidelines may not reflect the actual amount of outside time that you – as a unique individual with your own learning style – will need to complete the course requirements. The number of hours each week will vary based on assignment due dates, so please plan ahead to insure that you schedule your academic, work, and personal time effectively. The following graphic can be used to guide you in planning your weekly course work to remain on schedule:

Online Learning Schedule						
MON	TUES	WED	THU	FRI	SAT	SUN
Read, Listen to Lecture, Post Db Question						
			Respond to Db Questions			
Individual and Group Project Work						
Instructor Communication - As Needed						

Syllabus Addenda:

Please see the LTU Online “Current Students” web site <http://www.ltu.edu/ltuonline/> for comprehensive information about Lawrence Tech’s academic services, library services, student services, and academic integrity standards. The content of this web site is explicitly included as syllabus requirements.

The LTU Online “Current Students” web site also includes grading rubrics used by your instructor to evaluate written assignments, discussion forum participation, and group assignments. Please note that the SafeAssign anti-plagiarism product will be used for written assignments submitted for this course. Please see the instructions included on the LTU Online web site regarding the use of the SafeAssign product.

Leadership Transcripts:

The leadership transcript enables students to track co-curricular activities that are undertaken above and beyond the requirements of the LTU curriculum. The leadership transcript serves students by enhancing the leadership portfolio; providing the opportunity for a transcript of distinction; enhancing their resumes; and assisting in articulating leadership experience. It can be accessed by logging on to Banner Web and clicking the Student and Financial Aid tab. Leadership Activities is located at the bottom of the list. More information is available at <http://www.ltu.edu/leadership>.