



ARC 619: Architecture and the Information Environment Fall 2016

Credit Hours: 3 Credits

Class Hours: Tuesday, 10:00 am – 12:40 pm

Room: Hayes 302

Instructor: Omar Khan (omarkhan@buffalo.edu)

Office Hours: Wed, 1:00 pm – 3:00pm

Course Website: cast.b-ap.net/arch619f16

Eligibility: The seminar is a required course for students enrolled in the Situated Technologies Research Group. It is open to other graduate students space permitting.

Prerequisites: This is a reading seminar that requires students to complete weekly readings (up to 50 pages) and engage in class discussions. Students should have taken one or more humanities reading and writing courses. You will be expected to critically evaluate what you read and communicate the author's and your own position through written assignments.

Course Description:

This seminar is the first in a two-semester sequence that introduces theoretical and historical topics relevant for research in the design of "Situated Technologies". It introduces students to the significant ideas that define the information environment and how they concern architecture and urbanism. Taking a broad interdisciplinary approach the course draws texts from science, engineering, information theory, aesthetics, philosophy, sociology, media, art, architecture and urbanism. It includes primary texts as well as their interpretations, providing a critical examination of the ideas and their influence on technology and society.

The information environment refers to the ideas and artifacts produced by information and computing technologies (ICT) and their influence on social and cultural production. This critical reading seminar, roughly organized in historical progression, will explore a series of themes that intersect ICT development, architecture and urbanism. We will study some of the important concepts that have influenced the technological imagination and how they continue to frame the debate on technological progress. We will also explore what it means to

situate technologies and how the architectural imagination can provide us with the resources to address technological determinism.

The following topics will form the schedule of the seminar:

The Case of Technology

The Case of Media

Information Machines and the Dilemma of Communication

Cybernetics and the Problems of Control

Systems and the Primacy of Relations

Interactivity and Human/Computer Mutualism

Typological vs. Topological Space

Emergence and the Evolution of Form

Networks and Interconnectivity

Pervasive Computing

Digital Fabrication and Mass Customization

Responsive Architecture

The Sentient City

Course Objectives and Learning Outcomes:

- The seminar will familiarize students with the significant personalities, concepts and issues pertaining to the development of the information environment and how it intersects with architecture and urbanism.
- Students will engage in directed readings of primary texts and learn to critically examine and understand their content.
- Students will learn to construct theoretical positions and argue them through credible referencing of other's work.
- Students will learn to edit their own work for conceptual clarity and proper referencing.

Requirements and Evaluations:

Class participation: 20%

- Students should have read all the required texts and prepared **3 questions** on the readings.
- Students should actively participate in the class discussions.
- Students are expected to come to all classes and have a credible (sickness or family emergency) excuse if they can't attend. This excuse should be shared with the instructor prior to the class.

Paper 1: 25%

- You will write a 1500 word paper based on topics provided using the texts from the class.
- You will revise your paper based upon the comments provided by the instructor.

Paper 2: 25%

- You will write a 1500 word paper based on topics provided using the texts from the class.
- You will revise your paper based upon the comments provided by the instructor.

Final Paper: 30%

- You will write a 2500 word final paper due based on topics provided or of your own choosing using the texts from class as well as those researched by you independently.

Grading Criteria

A= 4 Exceptional work. Meets and exceeds all criteria. Clear understanding of concepts and techniques. Exhibits insights indicating that the experiences from one project/exercise to the next are cumulative and transferable. Constructively challenges and criticizes issues brought forth during the semester. Develops capability to be constructively self-critical. Assumes responsibility for intellectual development of self and encourages intellectual development of colleagues. Maintains perfect attendance. This grade indicates clear capability to perform well at the next level.

B= 3 Above average work. Meets all criteria. Good understanding of concepts and techniques. Reasonable carryover from previous exercises. Constructively challenges issues brought forth during the semester. Maintains excellent attendance. This grade indicates a reasonable prediction of competent performance at the next level.

C= 2 Average work. Meets minimum requirements. Indicates some difficulty in understanding concepts and techniques or in transferring experience from one project to the next. Exhibits need for improvement in critical thinking skills. Maintains good attendance. This grade indicates mediocre to poor performance at the next level.

D= 1 Below average work. Does not meet minimum requirements. Indicates serious difficulties in understanding concepts and techniques, and/or in the transfer of information. Probable indication of poor attendance and lack of motivation.

F= 0 Poor work. This grade is a probably indication of late work, incomplete work, work not submitted, or overall work so weak that a passing grade is not reasonable.

Work Expectations:

Most of your time in the seminar will be spent on the weekly readings. This will range, depending on your abilities, up to 6 hours per week. **Many of the readings are difficult and you may not be able to complete them but you should put in the required time.**

Available Support:

My office hours are Wednesday 1pm-3pm. If you are having difficulty with the readings make an appointment to see me so that we can go through them together. It is incumbent on you to stay on top of the readings and I will provide you with the necessary support as needed.

Specific Needs:

Students with specific needs that require attention should inform the instructor at the beginning of the semester. If you have a disability (physical, learning, or psychological) which may make it difficult for you to carry out the course work as outlined, and/or requires accommodations such as recruiting note takers, readers, or extended time on exams and assignments, please contact the Office of Disability Services, 25 Capen Hall, 645-2608. The office will provide you with information and review appropriate arrangements for reasonable accommodations.

Academic Integrity:

Academic integrity is a fundamental university value. Through the honest completion of academic work, students sustain the integrity of the university while facilitating the university's imperative for the transmission of knowledge and culture based upon the generation of new and innovative ideas.

When an instance of suspected or alleged academic dishonesty by a student arises, it shall be resolved according to the following procedures. These procedures assume that many questions of academic dishonesty will be resolved through consultation between the student and the instructor (a process known as consultative resolution, as explained below).

Examples of Academic Dishonesty

Academic dishonesty includes, but is not limited to, the following:

- *Previously submitted work.* Submitting academically required material that has been previously submitted—in whole or in substantial part—in another course, without prior and expressed consent of the instructor.
- *Plagiarism.* Copying or receiving material from any source and submitting that material as one's own, without acknowledging and citing the particular debts to the source (quotations, paraphrases, basic ideas), or in any other manner representing the work of another as one's own.
- *Cheating.* Soliciting and/or receiving information from, or providing information to, another student or any other unauthorized source (including electronic sources such as cellular phones and PDAs), with the intent to deceive while completing an examination or individual assignment.
- *Falsification of academic materials.* Fabricating laboratory materials, notes, reports, or any forms of computer data; forging an instructor's name or initials; resubmitting an examination or assignment for reevaluation which has been altered without the instructor's authorization; or submitting a report, paper, materials, computer data, or examination (or any considerable part thereof) prepared by any person other than the student responsible for the assignment.
- *Misrepresentation of documents.* Forgery, alteration, or misuse of any University or Official document, record, or instrument of identification.
- *Confidential academic materials.* Procurement, distribution or acceptance of examinations or laboratory results without prior and expressed consent of the instructor.
- *Selling academic assignments.* No person shall sell or offer for sale to any person enrolled at the University at Buffalo any academic assignment, or any inappropriate assistance in the preparation, research, or writing of any assignment, which the seller knows, or has reason to believe, is intended for submission in fulfillment of any course or academic program requirement.
- *Purchasing academic assignments.* No person shall purchase an academic assignment intended for submission in fulfillment of any course or academic program requirement.

Behavioral Expectations in the Classroom:

- To prevent and respond to distracting behavior, faculty should clarify standards for the conduct of class, either in the syllabus, or by referencing the expectations cited in the Student Conduct Regulations. Classroom "etiquette" expectations should include:
- Attending classes and paying attention. Students should not ask an instructor in class to go over material they missed by skipping a class or not concentrating.
- Not coming to class late or leaving early. If a student has to enter a class late, he or she should do so quietly and should not disrupt the class by walking between the class and the instructor. Students should not leave class unless it is an absolute necessity.
- Not talking with other classmates while the instructor or another student is speaking. If a student has a question or comment, he or she should raise a hand, rather than starting a conversation about it with a neighbor.
- Showing respect and concern for others by not monopolizing class discussion. Students must allow others time to give their input and ask questions. Students should not stray from the topic of class discussion.
- Not eating and drinking during class time.
- Turning off electronic devices including cell phones, pagers, and beeper watches.
- Avoiding audible and visible signs of restlessness. These are both rude and disruptive to the rest of the class.

- Focusing on class material during class time. Sleeping, talking to others, doing work for another class, reading the newspaper, checking e-mail, and exploring the Internet are unacceptable and can be disruptive.
- Not packing bookbags or backpacks to leave until the instructor has dismissed class.

Student Responsibility Statement:

- The university is committed to the ideal of flexibility and diversity in the educational experience. Certain regulatory procedures are necessary, however, to ensure that the complex needs of a large student body in search of diverse educational goals are met efficiently and smoothly. Students are advised to familiarize themselves with the following details in order to avoid any difficulties along their chosen path to the baccalaureate degree.
- By accepting responsibility for their education, students enhance the development of their academic, social, and career goals. As a condition of enrollment, students are responsible for reviewing, understanding, and abiding by the university's regulations, procedures, requirements, and deadlines as described in official publications, including the university's undergraduate catalog, UB Web sites, and official university e-mail communications. In addition, all students are required to positively affirm their knowledge of, and adherence to, UB's Student Conduct Rules, University Standards and Administrative Regulations prior to their inaugural semester at UB. Asserting a lack of knowledge of university regulations will not be accepted as a basis for an exception to these regulations.

Class Attendance:

Students may be justifiably absent from classes due to religious observances, illness documented by a physician or other appropriate health care professional, conflicts with university-sanctioned activities documented by an appropriate university administrator, public emergencies, and documented personal or family emergencies. The student is responsible for notifying the instructor in writing with as much advance notice as possible. Instructors may determine a reasonable amount of coursework that should be completed in order to makeup the student's absence. Students are responsible for the prompt completion of any alternative assignments.

NAAB Criteria:

The course addresses the following criteria:

A.9. Historical Traditions and Global Culture: *Understanding* of parallel and divergent canons and traditions of architecture, landscape and urban design including examples of indigenous, vernacular, local, regional, national settings from the Eastern, Western, Northern, and Southern hemispheres in terms of their climatic, ecological, technological, socioeconomic, public health, and cultural factors.

C. 2. Human Behavior: *Understanding* of the relationship between human behavior, the natural environment and the design of the built environment.