ARCH-599
Healthcare Design
2 Units
Fall 2018
Professor Victor Regnier
FAIA + ACSA Distinguished Professor

Class: Wednesdays 6:30-8:30 pm, (2 Units)
Location: Harris 102
2 Saturday Site Visits:  Week 5—9/22, (9AM to 2PM), Week 10—10/27, (9AM to 2PM)

Introduction
This course focuses on the design of a diverse collection of hospital and community settings for healthcare. The course introduces students to a range of building types that vary from major trauma centers to small scale community outpatient facilities. It traces the evolution of healthcare settings from the Greek period to current times, including the newest emphasis on public health and lifestyle.

Hospital design and construction from the mid 20th century onward has been a major societal priority in the US and across the globe. It is a building type that is very challenging because it requires intelligence, experience and careful attention to detail. Healthcare design is often a forward-thinking process which seeks to anticipate changes that may likely occur in the future. It involves very sophisticated safety and technical controls while demanding flexibility based on changing needs (equipment, technology and treatments). It is also an increasingly expensive enterprise that challenges our values about equity and because architectural errors can often be costly, it values the quality of the team and their expertise in delivering the best design.

Southern California is one of the worldwide centers for the design of healthcare environments with dozens of firms competing for billions of dollars in commissions. Healthcare is a growing industry stimulated by the unprecedented expansion of the oldest-old population and the use of new diagnostic and treatment technologies. It seems everyday a new disease is being conquered with every institution striving to keep up with the newest approaches to providing cutting edge medical care.

Why is this topic important to Study?
From a humanistic perspective, good health is perhaps our most cherished gift. Today we actively use research from evidence-based good practices to make the best design decisions. This research tells us the environment appears to make a difference in convalescence rates and a patient’s overall satisfaction with their experience. Today’s hospitals are very different from those of 50-70 years ago. The best settings today involve the patient and their family in the process of healing. Consumers are increasingly expressing their opinions through surveys and social media about the quality of care and the quality of the environment.

Today, hospitals use privacy and social support to improve patient outcomes. They involve a range of sophisticated imaging devices that improve each year and are more accurate at diagnosing medical problems. Sophisticated treatments use cyber-knife technologies and robotic surgical tools, as well as simpler, relatively straight-forward outpatient procedures. Hospitals which were best know for inpatient stays are now less necessary with the advent of expanded outpatient procedures. Having cataract surgery or a colonoscopy are commonly carried out without the need of an overnight stay. Hospital design today is a group process that involves a range of inputs from operational, financial, managerial and technological sources. The safety and effectiveness of the setting also requires the input of doctors, nurses, staff, patients, visitors and family members.

Course Topics and Approach
This topic of healthcare design is huge in scale and magnitude. In fact, many firms who specialize in this area, have their own in-house training programs. This course is meant to provide an overview of this changing building type and how it impacts the practice of medicine (and architecture) today.

The course starts with the history of the hospital as a building type from 500BC to the present day summarizing with a list of today’s challenges and tomorrow’s future trends. It describes powerful research findings that show how landscape designs can combat depression and promote relaxation. Building organizational strategies and
programming approaches are reviewed as well as factors that affect appearance and functionality. It examines the patient room and new trends that embrace old ideas and introduce new ones. It demonstrates how and why families/friends have become more active participants in the healing process. It also shows how empirical analysis (often labeled evidence-based design) is affecting practice. Finally, it ends with a look at new technologies like imaging diagnostics and operating room procedures which are changing high-tech medicine.

Instructor
Victor Regnier, is a professor with a joint appointment between the schools of Architecture and Gerontology. Victor’s expertise in healthcare and aging has made him an internationally recognized scholar, researcher and design consultant. His work as both an academic and consultant has bridged 35 years and includes his participation in hundreds of projects in the US, Canada, the UK and Germany.

Grading
Students will be evaluated on the basis of 2 written evaluations, 2 quizzes and class participation/attendance. Final exam questions will be taken from the readings and class lectures.

1. 2 Evaluation papers (20% each) 40%
2. Weekly readings + Participation/Attendance 15%
3. Reading assignment discussion questions
   (2 discussion Q @ 5% each) 10%
4. Final Exam 35%
Total 100%

You are expected to read the assignments prior to class and come prepared to discuss the work and raise questions from your perspective. If you are not able to attend class, please let me know why you can't attend. You can either e-mail me at regnier@usc.edu or leave a voice mail message or text at (310) 773-1260.

My office hours are by appointment only. It is easiest to meet with me after class (Wednesday PM). My office is on the third floor of Watt Hall #348. I have a mailbox in the Watt Faculty room on the second floor and this is where you should hand in papers at the end of the semester or between class periods. Please give them to Jane Ilger or the current assistant in the main office and they will initial them, date them and place them in my box. It is also OK to email papers to me at my email address above.

Class Participation
A small portion of each class will be set-aside for class discussion during which we will go over the readings and the field trips. Class discussion along with your class comments on the readings, debriefing from field trips and attendance will be used to calculate your participation grade.

Short Paper Assignments:
You are expected to write a short evaluation paper on the two site visits we make. After experiencing the site visit, listening to the lectures, and reading the assigned materials; you should write a 5 page (double spaced) essay, which captures your evaluation/analysis of the setting. Photos, sketches annotated plans and diagrams that further describe the design/social context should accompany the essay. They will not be counted in the page limit. The experience of each setting should include (although need not be limited to) the following categories:

1. Site design + Accessibility
2. Landscape and garden development
3. Use/design of common space
4. Interior design/furniture treatments
5. Wayfinding considerations
6. Design of the patient room
7. Design of any special room/facility
8. General services, facilities and features
9. Management approaches and family/visitor considerations
## ARCH 599 WEEKLY SCHEDULE

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<td>Two</td>
<td>8/29—Hospitals by the Numbers</td>
<td>9/22—Site Visit #1</td>
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<td>Three</td>
<td>9/5—A Beginning Look at the History of Hospitals</td>
<td>Rancho Los Amigos</td>
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<td>Four</td>
<td>9/12—Hospitals up to the 20th Century</td>
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<td>9/26—Site Issues, Outdoor Space and Gardens</td>
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<td>10/3—Building Organizational Strategies</td>
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<td>10/31—How to Involve Caregivers + Family—The Planetree Model</td>
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<td>Twelve</td>
<td>11/7—Evidence-Based Design and Research</td>
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<td>11/21—THANKSGIVING—NO CLASS</td>
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<td>11/28—The Future: Where Are We Going?</td>
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<td>Final Exam</td>
<td>12/5 FINAL EXAM—7:00PM to 9:00PM</td>
<td>Review for the Final</td>
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### Attendance Policy

In this class, attendance is **very important**. Because much of the learning takes place through the tours we take of important buildings and class discussion, it is imperative that you take class attendance seriously. Having said that, I know many students have complicated schedules and weekends are often the only time available for other important events. Other assignments are available for “making up” a missed class period but this must be negotiated with the instructor.

There will be a sign-in and sign-out sheet for each class period. If you are more than 30 minutes late for class you have essentially missed the class. Students that arrive more than 15 minutes after class begins are considered tardy. Coming to class a few minutes early (if possible) is always a good idea. Conversations with the instructor and student colleagues are often very productive before class begins.

Earlier in the document, grading policies were described in detail. Class attendance along with class participation, discussion and Q+A is 15% of your grade. If you do not attend class—your participation grade will likely suffer. Students will be noticed at mid semester and/or toward the end of the semester if they have missed more than 2 classes.

For site visits you will also be required to sign the role sheet. Leaving the class before the official end of class is also not acceptable. However, if the class goes over the allotted time you certainly have permission to leave.
Weekly Course Outline with Readings

8/22 Week One
Orientation
Introduction to class structure, expectations and grading.
Relationship of seminar class to studio
Hospitals—important characterizing facts

8/29 Week Two (48+49 pgs.)
Hospitals by the NUMBERS
Number and growth of hospitals in the US
Trends in development and design
Different types of hospitals and their purposes

Reading
Kobus, et.al. (2008), pgs 1-16; Verderber (2010) pp.3-7; AHA (2018) Environmental Scan, 24pp;

Reference and Review

9/5 Week Three (85 +50 pgs.)
A Beginning look at the History of Hospitals
Greek Beginnings
Roman Organization
The Medieval Period
The Renaissance
Nightingale Era

Readings

Reference and Review
Matheson, A. and M. Mack (1913) pp 1-50

9/12 Week Four (126 pgs.)
Hospitals through the 20°C
1900-1945—pre WW2
1945-2000—post WW2

Readings

9/19 Week Five
NO CLASS—Field trip on weekend

9/22 Week Five—Saturday Field trip (Rancho Los Amigos) —Smith Group
10AM-3:00 PM Rancho Los Amigos Rehabilitation Hospital
Host: Chai Jayachandran, JJR Smith Group
Host: TBA, Rancho Los Amigos
Rancho Los Amigos
9/26  **Week Six** (84 pgs.)

**Site Issues, Outdoor Space and Gardens**

Site Considerations
The Power of the Natural Environment

**Readings**

10/3  **Week Seven** (125 + 48 pgs.)

**Building Organizational Strategies**
Hospital Building Components
Circulation Considerations
Wayfinding

**Required Reading**

**Reference and Review**

10/10  **Week Eight** (81 pgs.)

**Programming and Spatial Organizational Approaches**
Program Elements
Assembly Approaches
Adjacencies and Relationships

**Readings**
Miller, R; E. Swenson, and T.J Robinson (2012) pp.250-291 (Outpatient Clinics); Kobus et. al, 17-38 (ancillary departments); 122-128 (rehabilitation); 142-146 ((CSP-Central Sterilizing Processes); 157-162 (Support Services).

**Evaluation Paper #1 DUE—10/3**

10/17  **Week Nine** (40 pgs.)

**The Patient Room**
The single-bed Room
Innovations and Concerns

**Readings**
10/24  Week Ten—NO CLASS

10/27  Week Ten—Saturday field trip
Larger Hospital TBA
Host: TBA
10AM-3PM

10/31  Week Eleven  (60 pgs.)
Involving Caregivers and Family—The Planetree model
The Planetree Approach
Patients, Family, Visitors and Staff

Readings

Reference and Review
https://planetree.org/

11/7  Week Twelve  (65 + 14 pgs.)
Evidence-based Design and Research
Optimizing success in the future
Using data and group process to make better decisions

Readings

Reference and Review

11/14  Week Thirteen  (75 pgs.)
Special and Evolving Rooms and Places
The Emergency Room +
The Surgical Suite +
Imagery Suite

Readings

Evaluation Paper #2 Due

11/21  Week Fourteen—NO CLASS—Thanksgiving

11/28  Week Fifteen  (35 pgs.)
The Future: Where are we going
Prognostications
Review + Preparation for the Final Exam

Readings
Verderber (2010) pp. 101-113

12/5  FINAL EXAM, Harris 102  (7:00-9:00 PM)
Bibliography
(*Books are cited in the reading list above)

*American Hospital Association (AHA) (2018), Environmental Scan, Washington DC: AHA
*American Hospital Association (AHA) (2018), AHA Community Health Indicators: Chapter 7, Washington DC: AHA


Levin, Deborah (ed), (2014) *General Hospitals: Planning and Design,* Hong Kong, Design Media Publishing


Statement on Academic Conduct and Support Systems

Academic Conduct:
Plagiarism – presenting someone else’s ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, “Behavior Violating University Standards” policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, http://policy.usc.edu/scientific-misconduct.

Support Systems:

Student Counseling Services (SCS) – (213) 740-7711 – 24/7 on call
Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention. engemannshc.usc.edu/counseling

National Suicide Prevention Lifeline – 1 (800) 273-8255
Provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week. www.suicidepreventionlifeline.org

Relationship and Sexual Violence Prevention Services (RSVP) – (213) 740-4900 – 24/7 on call
Free and confidential therapy services, workshops, and training for situations related to gender-based harm. engemannshc.usc.edu/rsvp

Sexual Assault Resource Center
For more information about how to get help or help a survivor, rights, reporting options, and additional resources, visit the website: sarc.usc.edu

Office of Equity and Diversity (OED)/Title IX Compliance – (213) 740-5086
Works with faculty, staff, visitors, applicants, and students around issues of protected class. equity.usc.edu

Bias Assessment Response and Support
Incidents of bias, hate crimes and microaggressions need to be reported allowing for appropriate investigation and response. studentaffairs.usc.edu/bias-assessment-response-support

The Office of Disability Services and Programs
Provides certification for students with disabilities and helps arrange relevant accommodations. dsp.usc.edu

Student Support and Advocacy – (213) 821-4710
Assists students and families in resolving complex issues adversely affecting their success as a student EX: personal, financial, and academic. studentaffairs.usc.edu/ssa

Diversity at USC
Information on events, programs and training, the Diversity Task Force (including representatives for each school), chronology, participation, and various resources for students. diversity.usc.edu

USC Emergency Information
Provides safety and other updates, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible. emergency.usc.edu

USC Department of Public Safety – UPC: (213) 740-4321 – HSC: (323) 442-1000 – 24-hour emergency or to report a crime. Provides overall safety to USC community. dps.usc.edu