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COURSE CODE:

ARC3060
HF/Fall Term 2018
COURSE: History
and Theory of
Architecture +
Health (Health and
the Built
Environment)

CLASSROOM LOCATION:

Daniels Faculty, 1 Spadina, Room 315

CLASS HOURS:

Wednesday

6:00-8:50PM

PROFESSOR: Dr. Stephen Verderber, Arch.D, NCARB

EMAIL: sverder@daniels.utoronto.ca

OFFICE HOURS: By appointment

COURSE DESCRIPTION:

This seminar explores the timeless relationship between the built environment, public health, and human and ecological well-being. Landmark events in history, theories, and care settings from antiquity to the present, and prognostications for 2050 are explored. Healthcare delivery systems are examined, transcending static disciplinary barriers. The fundamental goal is to foster a

transactional understanding and appreciation of key responsibilities, concerns, and priorities in the planning and design of the built environment in both the civic and private realm in relation to individuals' and organizations charged with the stewardship of human health in the built environment (architects, landscape architects, industrial designers, direct care providers, and public policy makers). Case studies are drawn from diverse global cultural contexts vis-à-vis a space-timeline chronology, as this provides a basis for examining patterns of adaptation and the diagnosis of dysfunctional, counter-therapeutic, or otherwise maladaptive care settings both in the institutional milieu and in everyday built environments. Topics discussed include architectural typologies for health, affordance theory, biophilia, salutogenic care settings, health promotion and community wellness, societal aging, environmental perception and cognition, and sustainable planning and design. Readings, class discussions, and an independent term project are supplemented with architectural, landscape, and community-based precedents (it is the only course of its kind *anywhere*).

Expectations:

Speaking and Writing Skills—Ability to read, write, listen and communicate effectively. Critical Thinking Skills—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.

Research Skills—Ability to gather, assess, record, and apply relevant information to related coursework within the student's major.

Global Traditions—Comprehension of Western and non-Western architectural canons and traditions in architecture, landscape architecture, and urban design, and parallel developments in the public health disciplines.

Use of Global Precedent—Ability to incorporate precedents into global architectural, landscape, and urban design innovations.

Human Behavior—Understanding of the theories and methods of inquiry that seek to clarify the relationship between human behavior and the built environment.

Human Diversity—Understanding of the diverse needs, values, behavioral norms, physical ability, and social and spatial patterns that characterize diverse cultures and individuals, and the implications of such diversity for the societal roles of design professionals.

Sustainable Design—Understanding of the principles of sustainability in making architecture and urban design that conserves natural and built resources, including culturally important buildings and sites, and in the creation of health-promoting buildings, places and communities.

Leadership—Understanding of the need for architects to provide leadership in preservation efforts, the building design construction process, and on issues of smart growth and appropriate aesthetic languages in the everyday milieu.

Attendance

Graduate level college work proceeds at such a pace that regular attendance is necessary for each student to obtain maximum benefits for instruction. Regular and punctual attendance at all

class and studio sessions is a student obligation, and each student is responsible for all the work, including tests and written work. No right or privilege exists that permits a student to be absent from any given number of class sessions except for absences excused in accordance with overall University policy. At times, students have valid reasons for missing a class.

Three unexcused absences will result in being dropped from the class. An unexcused absence is defined at any time you fail to notify the Professor as to the nature of your absence prior to missing the class, or immediately after if the circumstances dictate that prior notification is impossible.

Course Objectives:

As an introductory course on this topic, the student is not expected to have prior in-depth knowledge of healthcare service systems or care settings.

Learning Outcomes:

By the end of the term, students in this seminar will be able to demonstrate an understanding of:

- Basic concepts of human health with a particular focus on the direct and indirect role of the built environment.
- The acquisition of an empathic perspective and understanding, compassionately, the
 point of view and concerns of diverse health facility occupants, the "language" of
 architecture for health, and the broad scope of services and care systems.
- Analyzing case studies drawn from global building types and diverse conceptual approaches, both in historical and in contemporary contexts.
- Healthcare facility planning and design from ancient to present-day contexts as informed by advancements in technology, public health, medical science, and evolving social norms, cultural imperatives, and political realities.

Required Readings and Textbook:

Innovations in Hospital Architecture (London: Routledge, 2010). Additional required and recommended readings will be provided in a digital course pack (PDF). The textbook is available at the U. of Toronto Bookstore.

TERM SCHEDULE:

Week 1 (09.12): Unit 1—Introduction: Architecture + Health—Broad Perspectives

The phenomena of healthcare environments and an introduction to the relationship between people, the built environment, and health.

Required:

- 1. Verderber, Stephen. "Architecture for Health—2050: An International Perspective." *The Journal of Architecture*, 8, Autumn 2003, pp. 281-302.
- 2. Gesler, Wilbert M. *The Culture of Healthcare*. Pittsburgh: Pennsylvania: University of Pittsburgh Press, 1991 (Chapter 2: Cultural Systems, pp. 15-25).

Week 2 (09.19): Unit 2—Greek and Roman Settings

Early Western therapeutic settings for the care of the infirm through the Middle Ages.

Required:

- 1. Thompson, John D. and Grace Goldin. *The Hospital: A Social and Architectural History*. New Haven: Yale University Press, 1975 (Chapter 1: "Early Forms," pp. 3-14).
- 2. Hippocrates. *Hippocratic Writings*. London: Penguin Group, 1983 ("The Oath," p. 67; "The Canon," pp. 68-69; "Air, Water, Places," pp. 148-169). Translated by J. Chadwick and W.N. Mann.
- 3. Loudon, Irvine (Ed.). *Western Medicine: An Illustrated History*. New York: Oxford University Press, 1997 (Chapter 2: "Medicine in the Classical World," pp. 25-39).
- 4. Evans, Gary W. and McCoy, J.M. "When Buildings Don't Work: The Role of Architecture in Human Health," *Journal of Environmental Psychology*, 18, 1998, pp. 85-94.

Week 3 (09/26): Unit 3—Middle Ages to Renaissance: Monastic Medicine

Early monastic settings, open ward and derived plan hospitals, quarantines and lazarettos.

Required:

1. Goldin, Grace. *Work of Mercy*. Toronto: The Boston Mills Press, 1994 (Chapter 2 "The Chapel-Ward Combination," pp. 33-43).

2. Thompson and Goldin (Chapter 2: "The Open Ward," pp. 15-40).

Recommended reading:

Kruft, Hanno-Walker. *A History of Architectural Theory: From Vitruvius to the Present*. New York: Princeton Architectural Press, 1994 (Chapter 3: "Leone Battista Alberti; Chapter 4: "Quattrocento Theory After Alberti").

Howard, John. *Prisons and Lazarettos, Volume II.* Montclair, N.J.: Patterson Smith Publishing Co., 1973 (excerpts).

Week 4 (10.03): Units 4-5—Renaissance/Florence Nightingale/Insane Asylums—to 1900

Specialty hospitals for mental illness, the rise of humanitarian imperatives, Kirkbride asylums, and Florence Nightingale's international influence.

Required:

- 1. Thompson and Goldin (Chapter3: "Small Rooms and Private Rooms," pp. 41-78; Chapter 4: "Mid-Sized Wards from the Renaissance to the Nineteenth Century—Derived Plans," pp. 79-117; Chapter 5: "The Pavilion Hospital—A Designed Plan," pp. 118-169).
- 2. Tomes, Nancy. *A Generous Confidence: Thomas Story Kirkbride and the Art of Asylum Keeping, 1840-1883.* New York: Cambridge University Press, 1984 ("Introduction: The Historian and the Asylum," pp. 1-18; Chapter 1: "From Hospital to Asylum," pp. 19-43; Chapter 4: "The Persuasive Institution," pp. 129-179).
- 3. Kisacky, Jeanne, *The Rise of the Modern Hospital*. Pittsburgh: U. of Pittsburgh Press, 2017 (Chapter 3: "The Post-Germ Theory Pavilion in the Dawn of Asepsis, 1878-1897," pp. 105-165.

Recommended reading:

Rosenberg, Charles. *The Care of Strangers: The Rise of America's Hospital System.* New York: Basic Books, 1987 (Chapter 1: "To Heal the Sick: The Antebellum Hospital and Society," pp. 15-46 and Chapter 5: Ventilation, Contagion and Germs," pp. 122-141).

McBride, Deborah. "American Sanatoriums: Landscapes for Health, 1885-1945." *Landscape Journal*, 17, 1998, pp. 26-41.

Week 5 (10.10) OPEN

Week 6 (10.17): Unit 6—Buildings and Landscapes for Health: 1900-1965

Public health delivery systems in the U.S., The Garden City Movement, healthy cities and landscapes, LeCorbusier, Richard Neutra, the origins of modern zoning and skyscraper hospitals.

Required:

- 1. Thompson and Goldin (Chapter 6: "From Pavilions to Skyscrapers," pp. 170-203).
- 2. Kisacky, Jeanne (Chapter 5: "The Vertical Hospital as an Attractive Factory, 1917-1929, pp. 235-295).
- 3. Hancock, Trevor, "The Evolution, Impact and Significance of the Healthy Cities/Communities Movement," *Journal of Public Health Policy*, Spring 1993, pp. 5-18.
- 4. Verderber, Stephen. *Innovations in Hospital Architecture*. London: Routledge, 2010 (Chapter 1: "Introduction," pp. 3-8, and Chapter 2: "Architecture for Health: A Brief History of Sustainability" pp. 9-43).

Recommended reading:

Kisacky, Jeanne (Chapter 6: "The Meadow Monument to Medicine and Science, 1930-1945," pp. 296-337).

Mumford, Lewis. "The Garden City Idea and Modern Planning." In Howard, Ebenezer, *Garden Cities of Tomorrow*. Cambridge, MA: MIT Press, 1965, pp. 29-49.

Week 7 (10.24): Unit 7—Buildings and Landscapes for Health: 1965-2000

High-tech medical science and the rise of the megahospital, the hospital as a machine for healing, postmodernism, and the rediscovery of the therapeutic affordances of history, nature and landscape.

Required:

Verderber, Stephen and David Fine. *Healthcare Architecture in an Era of Radical Transformation*. New Haven and London: Yale University Press, 2000 (Chapter 2 "The Hospital as a Machine for Healing," pp. 17-62; Chapter 3: "An Imperfect Machine for an Imperfect System, 1970-80," pp. 63-94; Chapter 5: "Reinventing the Hospital," pp. 133-194).

Recommended reading:

Chapter 7: "Architectural Environments for the Aged, 1965-2000," pp. 223-277, and Chapter 8: "The Community Care Clinic," pp. 279-327.

Week 8 (10.31) Unit 7 (Part II)—Buildings and Landscapes: 2000-present Midterm Review

Landscape therapeutics and sustainable theory and practice in contemporary contexts. Ecohumanist paradigms and their manifestations in everyday built environments for health.

Required:

- 1. *Innovations in Hospital Architecture*, 2010 (Chapter 3: "The Evolving Role of Site, Landscape and Nature;" Chapter 4: "The Evolving Patient Room and PCU;" and Chapter 5: "The Evolving Role of Memory, Place and Sustainability;" pp. 45-113).
- 2. Verderber, Stephen and Shan Jiang, "Landscape Therapeutics and the Design of Salutogenic Hospitals: Recent Research." *World Health Design*, January 2016, pp. 38-49.

Week 9 (11.07): MIDTERM EXAM—and An Alternative Lens

Architecture, health and the built environment are explored through the history of film. A film is a fascinating vehicle to examine cross-cultural normative traditions with respect to portray the human condition in times of war, peace, and more recently, in the portrayal of the rise of global climate change.

Required:

1. Verderber, Stephen. "Exploring Healthcare Architecture Through the Medium of Film: Motives and Techniques." *International Journal of Architectural Research* (I-JAR). 8:1, 2014, pp. 29-49 (available online).

Week 10 (11.14): Future Trends to 2050—Innovations in Behavioural Health Architecture

Future trends in health and the built environment are examined with an emphasis on mental health treatment; reprise of the timeline/chronology introduced in Week 1.

Required (Individually Assigned Chapters):

- 1. Peters, Terri (ed.) *Design for Health: Sustainable Approaches to Therapeutic Architecture*, *AD*, London, March 2017 (PDF to be distributed).
- 2. Sadler, Blair, et al., "Fable Hospital 2.0: The Business Case for Building Better Health Care Facilities," *The Hastings Center Report*, February 2011, pp.10-19 (available online).

Presentation: Innovations in Behavioural Health Architecture (Mediatechque)

Week 11 (11.21): Units 8-10—Independent Project Presentations (Part I)

In-class presentation of the independent term project.

Week 12 (11.28): Units 8-10—Independent Project Presentations (Part II)

Continued in-class presentations of independent term projects.

Independent Term Project Due Digital submittal of the final written report and the in-class PowerPoint presentation—on or before 5:00PM, Friday December 14.

k. Some suggested topics for your Independent Semester Project:

- 1. The history and development of a specific healthcare building type, i.e. psychiatric hospitals, outpatient clinics, hospices within one, or across two or more of the six periods (waves) in history.
- 2. What is the role of the digital divide and social media in the delivery and quality of healthcare in domestic and global contexts?
- 3. What will the hospital of the future and the patient room be like in 2025...2050?
- 4. Healthcare settings for the aged—new technologies in environments and aging, i.e. assisted living centers, and dementia and Alzheimer's SCUs.
- 5. Why are relatively few healthcare facilities LEED certified in North America?

- 6. What is the recent history of (and future prospects for) transportable healthcare facilities, i.e. clinics on wheels, and emergency post-disaster trauma centers?
- 7. How can Google satellite earth imagery help us learn about differences between medical haves and have-nots in societies around the globe?
- 8. Additional topics—Landscape therapeutics, biophilia, and salutogenic landscapes and buildings for health. Telemedicine, outpatient care centers, epidemiology and disease, i.e. TB and HIV/AIDS and Ebola, homelessness and human health, the distracting role of noise in inpatient hospital settings, trends in wellness centers and health spas, current and future trends in public health and the deleterious consequences of suburban sprawl.

Conflicts with religious observances should be brought to the attention of the course instructor and the Office of the Registrar and Student Services no later than the second week of classes. For more information, please see the Policy on Scheduling of Classes and Examinations and Other Accommodations for Religious Observances

A list of all sessional dates can be found at: https://www.daniels.utoronto.ca/current-students/graduate-students/academics-and-registration. *Please refer to the Daniels Faculty website for a complete listing of all Daniels sessional dates. (https://www.daniels.utoronto.ca/current-students/graduate-students/academics-and-registration) For any and all discrepancies, please consider the website to be correct. The School of Graduate Studies sessional dates are available at https://www.sgs.utoronto.ca/currentstudents/Pages/Sessional-Dates.aspx.

GENERAL EVALUATION:

Evaluation will be carried out in accordance with the University Assessment and Grading Practices Policy. Please refer to the policy located on the governing council website. http://www.governingcouncil.utoronto.ca/Governing Council/policies.htm#G

Attendance/Participation: 20% Midterm Exam: 40% Independent Term Project: 40%

IMPORTANT DATES:

The academic term is 12 weeks in length. Please refer to the Daniels Faculty website for a complete listing of all Daniels sessional dates. (https://www.daniels.utoronto.ca/current-students/graduate-students/academics-and-registration) For any and all discrepancies, please consider the website to be correct. The School of Graduate Studies sessional dates are available at http://www.sgs.utoronto.ca/currentstudents/Pages/Sessional-Dates.aspx.

- Monday, September 3, 2018 Labour Day, University Closed
- Monday, September 10, 2018 First day of classes
- Tuesday, September 25, 2018 Last day to add classes
- Monday, October 8, 2018 Thanksgiving, University Closed.
- Monday, October 29, 2018 Final day to drop classes

- Monday, November 26 to Friday, November 30 Black Out week (no assignment/review deadlines)
- Friday, November 30, 2018 Last day of classes
- Monday, December 3, 2018 Final reviews begin
- Friday, December 7 Friday, December 21 Final Reviews, Exams, and Critiques

Conflicts with religious observances should be brought to the attention of the course instructor and the Office of the Registrar and Student Services no later than the second week of classes. For more information, please see the <u>Policy on Scheduling of Classes and Examinations and Other Accommodations for Religious Observances</u>.

EVALUATION:

The following guidelines must be followed:

- Provide a percentage value for each course component with due dates
- Must indicate if no graded work will be returned before, Oct 30, 2018
- For non-studio courses: No final reviews or assignments should be scheduled during the
 last week of the semester. If the final assignment is worth more than 35% of the grade, the
 due date must be in the review period following studio reviews and ideally during the last
 week of the review period.

The graduate grading scale is listed as letter grades. The graduate grading scale is included below for your reference:

Graduate		
Letter Grade Scale	Grade Meaning	Numerical Scale of Marks
A+		90 – 100%
Α	Excellent	85 – 89%
A-		80 – 84%
B+		77 – 79%
В	Good	73 – 76%
B-		70 – 72%
FZ*	Inadequate	0 – 69%

^{*}FZ=Fail]

Please refer to the University of Toronto Grading Practices Policy for additional information: http://www.governingcouncil.utoronto.ca/Assets/Governing+Council+Digital+Assets/Policies/PDF/grading.pdf.

LATE WORK:

All assignments are due in class at the specified time and date. Late submission will result in a 5% deduction (of each assignment's total grade) per day (excluding weekends). In the case of illness or other special circumstance, notification should be given to the Instructors and the Registrar as soon as possible and before the deadline in question; where required, the official University of Toronto Verification of Student Illness or Injury form must be submitted. Additional information is available on the Verification of Illness or Injury is available online:

http://www.illnessverification.utoronto.ca/Frequently-Asked-Questions.php

FINAL DUE DATE:

Due dates are set by the Instructor in the schedule and evaluation sections of this outline. All term work must be submitted on or before the deadline date stipulated by the instructor. Students who for reasons beyond their control are unable to submit an assignment by its deadline must obtain approval from their Instructor for an extension within the term. The last date of the term is December 21, 2018. Any work submitted after the stipulated deadline and before the end of term without an approved extension will not be accepted. Students will be required to petition for an extension if they will be unable to submit their work by December 21, 2018.

http://www.sqs.utoronto.ca/Documents/Extension+to+Complete+Coursework.pdf

[Please note that details regarding grade submissions will be sent to all faculty in the Fall by Sofia Joot in the ORSS. All grades are due 5 business days following the final assignment/exam. Exams/Reviews scheduled on December 17 will have their grades due on EMarks December 21. Those with an exam/review on December 21 will have their grades due on January 11, 2019.]

Students are advised to contact their professors in advance of a deadline, where possible. Those students registered with Accessibility services should provide you with a letter from their advisor that confirms their registration and indicates their required accommodations. Please speak with Andrea McGee in the ORSS if you have any questions or concerns regarding their letter of accommodation and how to interpret the information. Otherwise, students should present you with a Verification of Illness or Injury form (VOI). Without any documentation, or where notice was not given, the ultimate decision is at the instructor's discretion.

PREPAREDNESS AT UOFT:

Students are advised to register for UTAlert, the University's alert system, at http://alert.utoronto.ca/. UTAlert sends important messages to registrants via text, email, and phone.

ACCESSIBILITY NEEDS:

The University provides academic accommodations for students with disabilities in accordance with the terms of the Ontario Human Rights Code. This occurs through a collaborative process that acknowledges a collective obligation to develop an accessible learning environment that both meets

the needs of students and preserves the essential academic requirements of the University's courses and programs.

If you are a student who identifies with one or more of the broad categories below, we encourage you to register with Accessibility Services (http://www.accessibility.utoronto.ca/). New student registration packages need to be submitted by October 5 in order to receive December 2018 Exam accommodations. For any questions or assistance, please see the staff in the Office of the Registrar and Student Services.

- Attention Deficit Hyperactivity Disorder (ADHD)
- Autism Spectrum Disorder
- Brain Injury and Concussion
- Chronic Health
- Deaf and Hard of Hearing
- Learning Disability
- Mental Health
- Mobility and Functional
- Low Vision / Legally Blind
- Temporary Injuries

ENGLISH LANGUAGE AND WRITING SUPPORT:

The University of Toronto expects its students to write well, and it provides a number of resources to help. Please consult the University of Toronto writing site (http://www.writing.utoronto.ca/) for advice and answers to your questions about writing. Please pay special attention to "Advice on Writing: Academic Writing."

Academic writing carries with it certain expectations about properly citing, quoting, and referencing source material. Your research must be conveyed in a language commonly shared by others in the discipline. The style guidelines preferred by the Daniels Faculty are put forth in the Chicago Manual of Style and can be found here:

http://www.chicagomanualofstyle.org/16/contents.html https://owl.english.purdue.edu/owl/resource/717/01/

The Centre for International Experience (CIE) English Language Support is also available to support students: https://www.studentlife.utoronto.ca/cie/els. The Writing Centre at the John H. Daniels Faculty of Architecture, Landscape, and Design .

(http://www.daniels.utoronto.ca/resources/writing-program) is a resource for Daniels students seeking assistance with academic writing through tutorials and individual consultations. Students may access the online appointment booking system at: https://awc.wdw.utoronto.ca

ACADEMIC INTEGRITY:

Academic integrity is essential to the pursuit of learning and scholarship in a university, and to ensuring that a degree from the University of Toronto is a strong signal of each student's individual

academic achievement. As a result, the University treats cases of cheating and plagiarism very seriously. The University of Toronto's Code of Behaviour on Academic Matters (www.governingcouncil.utoronto.ca/policies/behaveac.htm) outlines the behaviours that constitute academic dishonesty and the processes for addressing academic offences. The Code of Behavior on Academic Matters states: "It shall be an offence for a student knowingly [...] to represent as one's own any idea or expression of an idea or work of another in any academic examination or term test or in connection with any other form of academic work, i.e, to commit plagiarism." The Code also states: "Wherever in the Code an offence is described as depending on 'knowing,' the offence shall likewise be deemed to have been committed if the person ought reasonably to have known."

Potential offences include, but are not limited to:

In papers and assignments:

- 1. Using someone else's ideas or words without appropriate acknowledgement.
- 2. Submitting your own work in more than one course without the permission of the instructor.
- 3. Making up sources or facts.
- 4. Obtaining or providing unauthorized assistance on any assignment.

On tests and exams:

- 1. Using or possessing unauthorized aids.
- 2. Looking at someone else's answers during an exam or test.
- 3. Misrepresenting your identity.

In academic work:

- 1. Falsifying institutional documents or grades.
- 2. Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.

All suspected cases of academic dishonesty will be investigated following procedures outlined in the Code of Behaviour on Academic Matters. If you have questions or concerns about what constitutes appropriate academic behaviour or appropriate research and citation methods, you are expected to seek out additional information on academic integrity from your instructor or from other institutional resources. For information about academic integrity at the University of Toronto, please see www.academicintegrity.utoronto.ca

Normally, students will be required to submit their course essays to Turnitin.com for a review of textual similarity and detection of possible plagiarism. In doing so, students will allow their essays to be included as source documents in the Turnitin.com reference database, where they will be used solely for the purpose of detecting plagiarism. The terms that apply to the University's use of the Turnitin.com service are described on the Turnitin.com website. For accepted methods of standard documentation formats, including electronic citation of internet sources please see the U of T writing website at: http://www.writing.utoronto.ca/advice/using-sources/documentation. Please also refer to "Reading and

Using Sources: How Not to Plagiarize" on the University of Toronto writing site (http://www.writing.utoronto.ca/).

REPRODUCTION RIGHTS:

On occasion, the John H. Daniels Faculty of Architecture, Landscape, and Design (the Faculty) will reproduce, use, exhibit, display, broadcast, and distribute images of student work completed in this course in connection with the activities of the Faculty for promoting, publicizing, or explaining the activities of the school. Unless you notify use otherwise at communications@daniels.utoronto.ca, your participation in this course grants the Faculty permission to publish such images in PR/promotional materials such as marketing, advertising, fundraising, and any other Faculty-related publication. These images may appear in a wide variety of formats including but not limited to print, broadcast, videotape, CD-ROM, and online media.

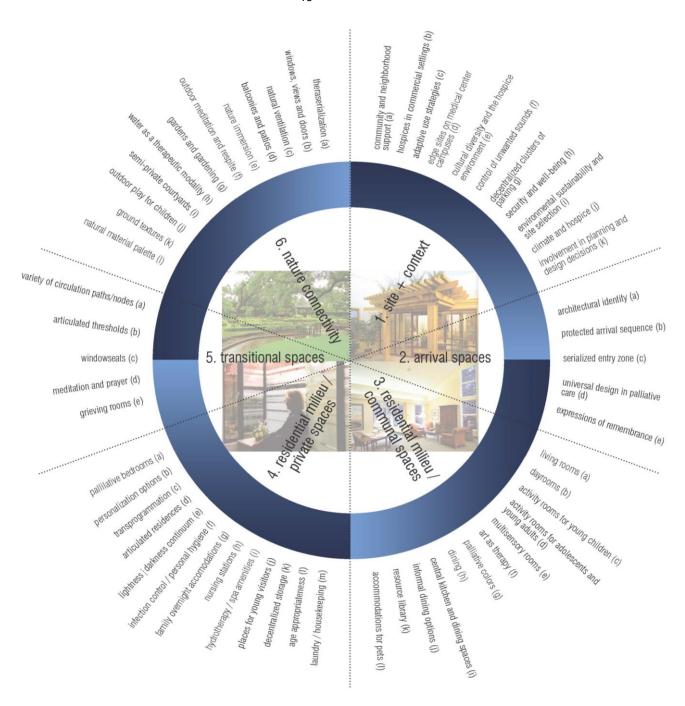


Figure 1: Architectural and Landscape Design Considerations in Residential Hospice Environments