IND 3468   # Interior Environmental Technologies
3 credits

Meeting Time	Tuesday/Thursday,	Periods 2 - 3 (8:30 - 10:25),	ARCH 213

Instructor   Nam-Kyu Park, PhD, LEED AP   npark@ufl.edu   (352) 294-1437
Office hours: T/R 10:30 – 11:30 am (or by appointment)   Office: 354 Arch

COURSE INTENTIONS

This course will help interior design students understand and visualize the types of building systems that exist between the walls, ceilings, and under the floors of buildings. The primary goal of this course is to give students an introduction to the relationships between people, technology, and the environments that we inhabit daily. A secondary goal of this course is to familiarize students with the vocabulary and concepts of environmental controls used by designers. From this knowledge base, students will develop a more holistic understanding of design considerations for building systems within interior spaces and be able to implement these concepts in their current and future design work.

COURSE OBJECTIVES

In accordance with *the Council for Interior Design Accreditation (CIDA) Professional Standards 2020*, this course will help students:

- Understand why and how human and environmental conditions, building technology, materials, and construction vary according to geographic location and impact design and construction decisions (4a).
- Understand how systems thinking and environmental responsibility inform the practice of interior design (4c).
- Demonstrate an understanding of the relationship between the natural, built, virtual, and technological environments as they relate to the human experience, wellbeing, behavior, and performance. (7b).
- Understand the principles of natural and artificial lighting design, strategies for using and modulating natural light, demonstrate proper selection of and application of, luminaires and light sources, how light and color in the interior environment impact health, safety, and wellbeing, and be aware of the environmental impact of illumination strategies and decisions. (12a, b, d, f).
- Identify, select, and apply products and materials on the basis of their properties and performance criteria, including ergonomics, environmental attributes, life safety, and life cycle cost (13e).
- Gain awareness that design decisions relating to relating to acoustics, thermal comfort, and indoor air quality impact human well-being and the environment by demonstrating an understanding of; the principles of acoustical design, appropriate strategies for acoustical control, principles of thermal design, how active and passive thermal systems and components impact interior design

solutions, the principles of water systems and waste systems, and strategies for integrating water systems and waste systems the principles of indoor air quality, and how the selection and application of products and systems impact indoor air quality (14a-14g).

- Demonstrate understanding of how design solutions affect and are impacted by the integration of building systems including electrical (such as power, data, lighting, telecommunications, audio visual), and mechanical (such as HVAC, plumbing, and sprinklers), monitoring systems pertaining to energy, security, and building controls systems, and vertical and horizontal systems of transport and circulation such as stairs, elevators, and escalators(15e-g).
- Demonstrate ability to read and interpret building construction documents (15i).
- Demonstrate understanding of the origins and intent of laws, codes, and standards that impact health, wellness, and fire and life safety, standards and guidelines related to sustainability and wellness, sector-specific regulations and guidelines related to construction, products, and materials, application of federal, state and local codes including fire and life safety, barrier-free and accessibility regulations and guidelines. (16a-e).

COURSE ORGANIZATION

Course format will include lectures, readings from textbook, application exercises, field observational project and exams. Note the due date of assignments and be sure to complete by deadlines!

Required Texts
Binggeli, Corky (2016)
Building Systems for Interior Designers, 3rd
Edition, published by John Wiley & Sons.
ISBN-13: 978-1118925546

Canvas e-learning, additional recommended texts & materials
Course information, support materials, and grades are accessed on the course web page in the UF CANVAS e- learning system. https://elearning.ufl.edu/ From there you can log in to your student CANVAS dashboard. Class communications will be sent via Canvas, it is the student's responsibility to check the system daily and/or set appropriate notification reminders. Any technical problems should be directed to UF Computer Help, https://lss.at.ufl.eu/help.shtml

The instructor reserves the right to make changes in the course schedule and syllabus as required to facilitate learning. Adjustments will be made when necessary and according to the professional judgment of the instructor. Be sure to check Canvas regularly for updates!

COURSE EVALUATION

Exam One	20%
Exam Two	20%
Exam Three	20%
Class Exercises	20%
Assignments	20%
Final Grade	100%

Grading Scale

A	= 93 – 100%	C	= 73 – 76%
A-	= 90 – 92%	C-	= 70 – 72%
B+	= 87 – 89%	D+	= 67 – 69%
B	= 83 – 86%	D	= 63 – 66%
B-	= 80 – 82%	D-	= 60 – 62%
C+	= 77 – 79%	E	< 60%

For further information on UF's Grading Policy, see:
http://www.isis.ufl.edu/minusgrades.html

Each assignment/exercise- complete or incomplete - must be turned in on the due date and will be graded as they stand. Students who seek an alternative to this rule must attain permission from instructor prior to the due date. The projects will be evaluated based on what is turned in at that time. No unexcused late project will be accepted. The late project will be given a failing grade.

Work Products

All work produced in class is property of the University of Florida Department of Interior Design. Instructors may elect to keep samples of student work for CIDA accreditation purposes. *Students are advised to document work before collection.*

Course Technology

Access to and on-going use of a computer is required for all students. Course work will require use of a computer and a broadband connection to the Internet. In addition, students are required to have speakers and a webcam for some videoed assignments. For technology related issues the UF computing help desk can be reached at:

- http://helpdesk.ufl.edu
- (352) 392-HELP - select option 2

COURSE POLICIES

Attendance Policy

Three or more unexcused absences will result in the lowering of a student's final course grade. Final grades will be lowered a letter-grade starting with the third unexcused absence. Requirements for class attendance and make-up exams, assignments, and other work are consistent with university policies that can be found at: https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx

Students must also:
- Attend class on time and have materials & tools, and work at each class period.
- Participate in class discussions related to the assigned readings.
- Complete daily assignments, work on exercises/projects outside of class time
- Maintain a professional and respectful climate during zoom meetings and team work. We expect students to be engaged with their zoom camera on while **maintaining professionalism** (e.g. Turn always Video On at each class period; Sit properly at a computer).

Late Assignments

All assignments—complete or incomplete—must be turned in on the due date and will be graded as they stand. If a student's work is incomplete, the professors have the right to cancel that student's presentation to the design jury. Students who seek an alternative to this rule must attain written permission from instructors prior to the due date. The projects will be evaluated based on what is turned in at that time. NO UNEXCUSED LATE WORK WILL BE ACCEPTED. LATE PROJECTS WILL BE GIVEN A FAILING GRADE.

Make-up Policy

Students who can demonstrate that they were unable to submit an assignment by the deadline due to an excused absence and who can provide enough appropriate documentation for the absence will be given a reasonable period of time to make up the late work. Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from the Help Desk when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Incomplete Grades

The criteria by which a student may receive an incomplete grade (I*) are described at
http://www.registrar.ufl.edu/catalog/policies/regulationgrades.html#incomplete

Please note that the instructor is not required to assign incomplete grades. It is at the instructor's discretion as to the extenuating circumstances that may warrant adequate excuse for not completing required course work.

Honor Code
All University of Florida students are expected to comply in full to the University of Florida Student Honor Code. This honor code details academic honesty expectations at the University of Florida. It is essential all students review this policy to understand the scope of these standards as well as the magnitude of infractions. It is each student's responsibility to read, understand, and follow these guidelines. All assessments (tests, quizzes, final exams, etc.), design studio projects, and any other assignments in UF's Interior Design Department are subject to Honor Code policy. Consequently, all instructors will strictly enforce the UF Honor Code in studio and classroom settings, which is the University of Florida's expectation as well as reflecting the profession of interior design's ethical standards. To review the honor code, visit: http://www.dso.ufl.edu/sccr/honorcodes/honorcode.php.

Special Honor Code Issues for Interior Design Students
It is common in design related fields to take inspiration from various sources. While we encourage inspiration from any source it is the responsibility of the student to always maintain a clear delineation between inspirations from OTHER SOURCES and YOUR AUTHENTIC work. This applies both to in process-work as well as final classroom deliverables. Any violations of this policy will be considered plagiarism.

UF POLICIES

University Policy on Accommodating Students with Disabilities:
"Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester."

University Policy on Academic Conduct:

UF students are bound by The Honor Pledge which states, "We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: "On my honor, I have neither given nor received unauthorized aid in doing this assignment." The Honor Code (http://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Class Demeanor or Netiquette:
All members of the class are expected to follow rules of common courtesy in all email messages, threaded discussions and chats. Students must be respectful to one another, even when there are differing opinions. UF netiquette guidelines can be found at: Netiquette Guide for Online Courses

Consequences might negatively affect an assignment grade, or for very severe cases, a report to the university administration.

Online course evaluation:
Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semesters, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.

Getting Help

For issues with technical difficulties for Canvas, please contact the UF Help Desk at:

- (352) 392-HELP - select option 2 or Canvas help at https://lss.at.ufl.eu/help.shtml

The ticket number received from LSS when the problem was reported to them MUST accompany any requests for make-ups due to technical issues. The ticket number will document the time and date of the problem. You MUST e-mail your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Other resources are available at http://www.distance.ufl.edu/getting-help for:

- Counseling and Wellness resources
- Disability resources
- Resources for handling student concerns and complaints
- Library Help Desk support

Should you have any complaints with your experience in this course please visit http://www.distance.ufl.edu/student-complaints to submit a complaint.

CAMPUS RESOURCES

Health and Wellness

U Matter, We Care: If you or someone you know is in distress, please contact umatter@ufl.edu, 352-392-1575, or visit U Matter, We Care website to refer or report a concern and a team member will reach out to the student in distress.

Counseling and Wellness Center: Visit the Counseling and Wellness Center website or call 352-392-1575 for information on crisis services as well as non-crisis services.

Student Health Care Center: Call 352-392-1161 for 24/7 information to help you find the care you need, or visit the Student Health Care Center website.

University Police Department: Visit UF Police Department website or call 352-392-1111 (or 9-1-1 for emergencies).

UF Health Shands Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road,

Gainesville, FL 32608; Visit the UF Health Emergency Room and Trauma Center website.

Academic Resources

E-learning technical support: Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at helpdesk@ufl.edu.

Career Connections Center: Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

Library Support: Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center: Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

Writing Studio*: 2215 Turlington Hall*, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: Visit the Student Honor Code and Student Conduct Code webpage for more information.

On-Line Students Complaints: View the Distance Learning Student Complaint Process.

COURSE SCHEDULE

AUGUST		
WEEK 1	**24** Course Overview	**26** The Big Picture/ Sustainable design Reading: Ch 1
WEEK 2	**31** Sustainable design & LEED	**2** Wellness design & WELL
SEPTEMBER		
WEEK 3	**07** Sustainable design & LEED UF LEED Building Analysis Reading: Ch 2	**09** Thermal Comfort Reading: Ch 9
WEEK 4	**14** Thermal Comfort Reading: Ch 9, 11	**16** Thermal Systems Reading: Ch 10
WEEK 5	**21** Indoor Air Quality Reading: Ch 11	**23** Vertical Circulation Systems Reading: Ch 5
WEEK 6	**28** **EXAM #1**	**30** Sustainability & Lighting Reading: Ch 13
OCTOBER		
WEEK 7	**05** Electrical Systems Reading: Ch 12	**07** Electrical Systems Reading: Ch 12
WEEK 8	**12** Electrical Design and Plan	**14** Communication Systems Reading: Ch 14
WEEK 9	**19** Electrical Design and Plan	**21** **EXAM #2**
WEEK 10	**26** Water & Wastes Reading: Ch 6, 7, 8	**28** Water & Wastes Reading: Ch 6, 7, 8
NOVEMBER		
WEEK 11	**02** Fire Safety Exercise Reading: Ch 15, 16	**04** Fire Safety Reading: Ch 15, 16
WEEK 12	**09** Fire Safety Exercise Reading: Ch 15, 16	**11** **No class** (Veterans Day)
WEEK 13	**16** Acoustics Reading: Ch 17, 18, 19, 20	**18** Acoustics Reading: Ch 19, 20
WEEK 14	**23** Acoustics	**25** **No class** (Thanksgiving)
DECEMBER		
WEEK 15	**30** Exam Review	**02** **EXAM #3**
WEEK 16	**07** Final Project	