



**PRAIRIE VIEW
A&M UNIVERSITY**

SYLLABUS

Course Title:	Sustainable Building			
Course Prefix:	ARCH	Course No.:	3463	Section No.: P01

"Design is the ultimate renewable resource." Cameron Sinclair



School of Architecture	Department: Architecture <input type="checkbox"/> Construction Science <input type="checkbox"/> Art <input type="checkbox"/> Digital Media Art <input type="checkbox"/> Community Development <input type="checkbox"/>
Course Location:	Nathelyne Archie Kennedy Building, Room 134
Class Meeting Days & Times:	Mondays 6:00pm - 8:50pm
Catalog Description:	Issues facing the design and construction industries in creating and maintaining high performance green buildings. Sustainable building projects will be analyzed, green building rating systems of USGBC's LEED system and the DOE's Energy Star program will be studied and researched. Presentation of benchmark sustainable case study projects will be accomplished.
Prerequisites:	ARCH 3463
Co-requisites:	N/A
Mode of Instruction:	x Face-to-face

Instructor:	April Ward, AIA Assoc., LEED GCP, PhD Candidate, Assistant Professor
Office Location:	School of Architecture, Prairie View A&M University, Room 239
Office Telephone:	(832) 372-5497
Fax:	(936) 261-9826
Email Address:	jaward@pvamu.edu
U.S. Postal Service Address:	Prairie View A&M University P.O. Box 519 Mail Stop 2100 Prairie View, TX 77446
Office Hours:	Monday, Wednesday, Thursday 10:00-1:00 PM Monday, Wednesday, Thursday 4:30-5:30 PM OTHER HOURS BY APPOINTMENT. Students are advised to make appointments with the professor ahead of time and be specific with the subject matter to be discussed. Students must be prepared for their appointment by bring all applicable materials and information to the meeting.
Virtual Office Hours:	
Required Text:	<p>1) <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition</u>, Heather McCombs, LEED AP ID+C, U.S. Green Building Council (USGBC), ISBN: 978-0-8269-1294-7 2015</p> <p>2) <u>LEED Green Associate Handbook</u>, U.S. Green Building Council (USGBC), updated July 2017 (PDF download available)</p> <p>3) <u>Rating System Selection Guidance</u>, version 4, updated 2011, U.S. Green Building Council (USGBC) (PDF download available)</p> <p>4) <u>LEED Core Concepts Guide: An Introduction to LEED and Green Building</u> 3rd Edition, U.S. Green Building Council (USGBC), ISBN: 978-1-932444-34-6 (Digital PDF available through course website)</p> <p>Professor will provide supplemental Required Handouts, Flashcards and Lectures Students are responsible for all materials distributed and presented during class time. Supplemental materials will be provided through ecourse and http://sustainablebuilding.me</p>
Required Training:	Manual and Digital Fabrication Laboratory certifications "Manual and/or Digital." Students will engage in the use of various tools and machines (laser cutter, cnc router, plasma cutter and 3d printer) located in the School of Architecture's "Manual and Digital Fabrication Facility" at PVAMU. They will use these tools and machines to fabricate various parts for scale models with the objective that they will further their understanding of the basic principles involved in designing the building envelopes, parts, and assemblies for their studio design project.
Recommended Text/Readings:	<u>Green Building Illustrated</u> Francis D.K. Ching, ISBN: 978-1-118-56237-6, 2014
Learning Resources	<p>PVAMU Library: Telephone: (936) 261-1500; web: http://www.tamu.edu/pvamu/library/ Use the Reference Desk at the library where the staff is eager to guide your research. They can orient you to hard copies and on-line resources.</p> <p>University Bookstore: Telephone: (936) 261-1990 web: https://www.bkstr.com/Home/10001-10734-1?demoKey=d</p>

	<p>The Writing Center Telephone: (936) 261-3700 The Writing Center's goal is to provide a friendly, stress-free environment for students from all over campus to meet with a consultant and talk about writing of all types. They provide a responsive audience and advice from experienced writers in sessions generally lasting thirty to forty-five minutes. Sessions of this length offer time to work individually with students on any aspect of the writing process: from brain storming and drafting, to revising and proofreading. They will explore ways to improve a student's overall writing skills. They do NOT proofread or edit for students, but instead teach proofreading and editing techniques. Their goal is to: make a better writer for the long term.</p> <p>Student Academic Success Center Telephone: (936) 261-1040 Student Academic Success Center identifies academic and social roadblocks that interfere with persistence and timely graduation of PVAMU students. SASC informs campus-wide policies by staying current with retention literature and best practices. Further, SASC develops programs and services that are specifically aimed at continuing the academic success of the first year. We strive to provide PVAMU students with <i>"Navigation to Graduation"</i>.</p> <p>The Tutoring Center John B. Coleman Library in Room 209 Telephone: (936) 261-1561 Hours: Monday through Thursday 12 pm to 9 pm and Friday from 8 am to 5 pm. Email: AEtutoring@pvamu.edu Open to all undergraduate students enrolled for credit in targeted PVAMU courses. offers help for:</p> <ul style="list-style-type: none"> ▪ Microeconomics, Macroeconomics ▪ Management Information Systems ▪ History, Government ▪ Statistics, Basics – Calculus II ▪ Psychology, Sociology ▪ English (Basics – Freshman Comp II), Speech ▪ Spanish I&II ▪ Biology (Pre-Med, Pre-Nursing) ▪ Chemistry (Bio & Nursing Majors) ▪ Physics ▪ Materials & Science
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Course Goals and Overview:

	<p>Issues facing the design and construction industries in creating and maintaining high performance green buildings. Sustainable building projects will be analyzed, green building rating systems of USGBC's LEED system and DOE's Energy Star program will be studied and researched. Presentation of benchmark sustainable case study projects will be accomplished.</p> <p>Students will become conversant with the tools used in designing, constructing, and operating & maintaining Sustainable Buildings. They will research Benchmark Green projects and identify the most effective tools used in high performance buildings. The USGBC's LEED rating system and the DOE's Energy Star Program will be reviewed and the Living Building Institute Strategy will be presented along with the AIA's 2030 Challenge.</p> <p>NAAB B6 ENVIRONMENTAL SYSTEMS</p>
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Course Outcomes/Learning Objectives

At the end of this course, the students will:

3463.1	Learn the critical knowledge related to the important role of sustainable design , construction, and maintenance of sustainable buildings.
3463.2	Understand the metrics of sustainable building performance tools .
3463.3	Understand and analyze high performance buildings .
3463.4	Prepare a team project to analyze a space for sustainable performance .
3463.5	Understand the interactive aspects of sustainable design and construction.
3463.6	Develop and demonstrate the ability to solve environmental challenges .
3463.7	Develop and demonstrate the ability to effectively communicate to the project team your point of view in the sustainable process.
3463.8	Prepare a research paper demonstrating your knowledge of a benchmark sustainable building project .

Course Requirements & Evaluation Methods

This course will utilize the following instruments to determine student grades and proficiency of the learning outcomes for the course.

- **Assignments:** Weekly Reading and Writing (note taking) will be due each week to supplement and reinforce course materials. Must BE SUBMIT online before the start of class. No late assignments will be accepted.
- **Mid-Term Exam:** Designed to measure knowledge of and apply course material, through the analysis of a space for sustainable performance, and demonstrate the ability to effectively solve environmental challenges and communicate a point of view in the sustainable process. All exam questions will come from the course reading.
- **Research Paper:** Designed to apply critical knowledge and communicate a point of view, through the analysis of a current case study/ benchmark sustainable building project and the important role of sustainable design, construction, and maintenance of sustainable buildings.
- **Final Exam:** Designed to measure knowledge of course materials. All exam questions will come from the course reading.
- **Class Attendance/Participation:** Attendance and participation in class discussions. The instructor will evaluate the student's participation in the class. Students will lose points for being tardy to class, sleeping in class, not paying attention in class, being disruptive to the class, failing to turn off cell phones, texting, etc. You will be graded on how well you participate in the team project.
- **Team Project(s):** You will be given time during class and expected to work outside of class time as homework on team projects. The team project will support course study material and teams will prepare a project to analyze a space for sustainable performance.

Grading Matrix

Instrument	Value (points or percentages)	Total
Assignments: Weekly Reading Notes	20%	20
Class Attendance + Participation: Including Reviews and Group Projects	20%	20
Team Project	15%	10
Final Case Study Report	5%	5
Mid-term Exam	20%	20
Final Exam	20%	25
Total:		100
Grade Determination:	A = 90-100 points B = 80-89 points C = 70-79 points D = 60-69 points; F = 59 points or below	

Course Procedures

Taskstream

University Attendance Policy:	Taskstream is a tool that Prairie View A&M University uses for assessment purposes. One of your assignments may be considered an "artifact," an item of coursework that serves as evidence that course objectives are met. More information will be provided during the semester, but for general information, you can visit Taskstream via the link in eCourses.
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<p>Instructor's Attendance and Participation Policy</p>	<p>All design assignments are due on the assigned date. Late work will not be accepted and will result in a grade of 0 for that assignment or project. All students must be present to submit and present their design concepts/drawings/models as make-up opportunities are very limited and will be granted only when caused by a university excused absence. It is also understood that emergencies do occur. If a university excused absence or a valid emergency is reported and approved, a make-up presentation/pin-up must occur during the next scheduled class period to avoid a penalty. As a student in a professional practice course at Prairie View A&M University you are expected to attend each class. Class attendance is recorded on roll sheets that are circulated to record your name and signature. Students are expected to behave and dress professionally in the studio and to be productive towards the completion of studio projects and/or assignments during studio hours. Given this expectation, students are required to adhere to the following rules:</p> <ol style="list-style-type: none"> 1. Students arriving 10 minutes past the beginning of class shall be marked late and deducted 20% from the daily classroom grade. Lateness will be indicted with a red-line drawn on the sign-in sheet at 10 past arrival time. Students arriving 30 minutes late will be deducted a minimum of 50% from their daily grade. 2. Visitors are not allowed during class time. Talking during class will adversely affect your daily grade, unless students are directly addressing the course work at hand. Eating during studio is not permitted. 3. Desk critique sign-in sheets will be posted at the beginning of each class. Students should sign up with the instructor for one on one desk critiques a minimum of two time per week. Students will meet with instructor based on this sign-in sheet. Any students that are not met with on that appointed time, will be met with first at the next period. 4. During each class, students are required to have their required reading and notebook or laptop for taking notes. 5. Weekly assignments are to be turned in on time. Late work will not be accepted without a doctor's excuse. 6. Students are expected to have all materials ready for work by the beginning of the second week of the semester including: 1) design notebook; 2) laptop; 3) sketch-up, CAD, REVIT on your laptop 4) mechanical drafting pencil, 5) yellow tracing paper and 6) drawing tape, 7) desk drawing/cutting board, 8) sketch & final model-making material, basswood, museum board, etc. 7. Along with the course syllabus, all Assignments for the semester will be placed in ECOURSES and sustainablebuilding.me. It is the student's responsibility to upload current files on time and to check for digital comments. This system time stamp will be referred to for grading and the system will not accept assignments past the deadline. 8. Students will be given weekly grades based on weekly assignments/reviews, attendance and professionalism. Students must sign weekly grades. 9. <i>Attendance for the Mid-term and Final Exams is mandatory. Missing either the Mid-term or Final Exam without a valid doctor's excuse will result in a zero and may result in the failure of the course.</i> <p>At the end of the semester, the instructor may award a growth grade worth an additional 5 points based upon their overall assessment of your participation, growth and development during the semester. Participation and absences are accumulated beginning with the first day of class. If you do not come to class, you may assume that you have received zero (0) points for the class period unless you have a university approved excuse in one of the following classifications:</p>
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	<ol style="list-style-type: none"> 10. Participation in an activity appearing on the University authorized activity list. 11. Death or major illness in a student's immediate family. 12. Illness of a dependent family member. 13. Participation in legal proceedings that requires a student's presence. 14. Religious holy day. 15. Confinement because of illness. 16. Required participation in military duties. <p>If you miss class for one of these reasons, you must provide a memorandum plus supporting documentation to clear the absence from your record. These documents will be accepted for ONE WEEK AFTER THE ABSENCE HAS OCCURRED. There will be NO exceptions to this rule. This includes student-athletes who are to provide university forms for reporting absences to participate in approved competitions. Emails will not be accepted to clear these absences. After that, the involvement grade stands. If you have another reason other than these seven for being absent, you may submit a memorandum with supporting documentation requesting that the absence be removed from you record for ONE WEEK AFTER THE ABSENCE HAS OCCURRED. There will be NO exceptions to this rule. All requests will be reviewed and approved or disapproved based upon the justification that you provide in your memorandum. While other reasons for being absent are rarely approved; it is understood that you might feel that there is a higher priority that requires you to miss class. In accepting your decision to miss class, you must also be willing to accept the instructor's decision to not award you involvement points for the class or classes that are missed. To assist you in recovering lost points, there is an opportunity to earn up to 500 additional points towards your final grade</p>
Personal Conduct	<p>As a student in a professional practice course at Prairie View A&M University you are expected to attend each class. Class attendance is recorded on roll sheets that are circulated to record <u>your</u> name and signature. Since attendance is critical to the learning objectives and the class discussions, a <u>400 point involvement grade is awarded for each class period (200 points for Part 1 + 200 points for Part 2).</u> You start with <u>100 points</u> for attending each class session under the assumption that you have come to learn. However, to gain an understanding of construction materials and installation methods, you must do more than just show up. Attentiveness is important. For example, showing up for class and then reading the newspaper will cause a deduction from your 100 points. Other things that could cause you to lose points would be sleeping in class, working on other assignments in class, being late, being rude or being disruptive. However, if you are attentive during the lectures and discussions, you will be awarded an additional <u>40 points</u> for each class. The <u>remaining 60 points</u> per class are <u>earned</u> by action on your part such as diligently taking notes, finding or sharing your thoughts on the subject being discussed, or asking a thoughtful and appropriate question. These points, plus potential bonus points, could also be earned by writing a one-page reaction paper about the class material or finding an insightful article from the newspaper or an architectural magazine. <u>If you are late to class you are subject to losing all or parts of the 60 participation points. Typical deductions for being late are: Up to 5 minutes: 0 points; from 5 to 10 minutes: 20 points; from 10-15 minutes: 40 points; and over 15 minutes: 60 points.</u></p> <p>You are <u>not</u> in competition with your fellow classmates for involvement points. Each student can receive 200 points per class session as long as they are legitimately earned. At the end of the semester, the instructor may award a growth grade worth an additional 400 involvement points based upon their overall assessment of your participation, growth and development during the semester. Participation and absences are accumulated beginning with the first day of class. If you do not come to class, you may assume that you have received zero (0) points for the class period unless you have a university approved excuse in one of the following classifications:</p> <ol style="list-style-type: none"> 1. Participation in an activity appearing on the University authorized activity list. 2. Death or major illness in a student's immediate family. 3. Illness of a dependent family member. 4. Participation in legal proceedings that requires a student's presence. 5. Religious holy day.

	<p>6. Confinement because of illness.</p> <p>7. Required participation in military duties.</p> <p><u>If you miss class for one of these reasons, you must provide a memorandum plus supporting documentation to clear the absence from your record. These documents will be accepted for ONE WEEK AFTER THE ABSENCE HAS OCCURRED. There will be NO exceptions to this rule. This includes student-athletes who are to provide university forms for reporting absences to participate in approved competitions. Emails will not be accepted to clear these absences. After that, the involvement grade stands.</u> If you have another reason other than these seven for being absent, you may submit a memorandum with supporting documentation requesting that the absence be removed from your record for ONE WEEK AFTER THE ABSENCE HAS OCCURRED. There will be NO exceptions to this rule. All requests will be reviewed and approved or disapproved based upon the justification that you provide in your memorandum. While other reasons for being absent are rarely approved; it is understood that you might feel that there is a higher priority that requires you to miss class. In accepting your decision to miss class, you must also be willing to accept the instructor's decision to not award you involvement points for the class or classes that are missed. To assist you in recovering lost points, there is an opportunity to earn up to 500 additional points towards your final grade</p>
Conduct of the Class and Care of the Facility	<p>Students and faculty are expected to conduct themselves in ways that support individual learning and the learning of others. To that end members of the classroom community will conduct themselves in a professional and ethical manner to achieve these objectives. Any conduct construed to interfere with the learning opportunities of members of the class may result in the removal of the student from the class for that day. Repeated inappropriate conduct will result in permanent removal from the class. Based upon the fact that you are preparing for professional employment, you are expected to adhere to the following specific guidelines:</p> <ol style="list-style-type: none"> 1. During regular class periods <u>all students are expected to dress appropriately</u> in accordance with university regulations so that no disruptions in the learning experience will occur. 2. <u>No hats or caps will be allowed to be worn in the classroom during class sessions.</u> If you elect to wear a hat or cap during the lectures or class discussion, your decision will be respected. However you should also respect the instructor's decision to not award you daily participation points based upon that decision. 3. <u>Dress Code for Presentations:</u> Professional dress is expected for all design and technical presentations in class. Failure to adhere to the guidelines posted by the instructor will result in a deduction of ten percent (10%) from your final presentation score. 4. <u>No food or drink is allowed in the classroom at any time.</u> 5. <u>Cellular telephones are to be turned off or put on silent ring tone during the class period.</u> Texting is strictly prohibited during the class period. No "ear phone" units will be allowed. If your cell phone rings during the lecture or you are texting you are subject to losing all participation point for that class period. 6. <u>Laptops must emit no noise.</u> Make sure your laptop is warmed up and your battery charged before class starts. A laptop is allowed only for taking notes or accessing relevant course material during the class. Checking email, playing a game, messaging and other non-class related activities are not allowed at any time. 7. <u>Harassment of your fellow students of any kind will not be tolerated.</u> 8. <u>No children, friends, family members or guests are allowed in the class without prior approval.</u> Failure to adhere to this rule will result in a "0" for that class period.
	<p>Please note the following rules for the conduct of the class.</p> <ol style="list-style-type: none"> 1. <u>Class will begin at the appointed time.</u> 2. <u>Class is dismissed when so indicated by the instructor.</u> Students are expected to be on time and stay throughout the entire class period. Leaving the classroom before the class is dismissed without prior approval from the instructor will result in a loss of participation for that class. 3. All class members are required to <u>keep the classroom in a clean and orderly manner to facilitate the number of students using it each day.</u> Failure to maintain the classroom

	<p>as requested by the instructor will result in a deduction in participation points for all class members for that date of instruction.</p> <p>4. <u>Lecture Notes and Handouts</u> will be sent to your official university email. Handouts distributed during a class period will not be distributed at any other time. It is the student's responsibility to get a copy from another student or source.</p>
Submission of Assignments:	Assignments are due at the start of the class session. No late work will be accepted without proper documentation. Digital files must be uploaded to the google drive folder.
Formatting Documents:	Microsoft Word is the standard word processing tool used at PVAMU. If you are using other word processors, be sure to save the document in either the Microsoft Word, Rich-Text, or plain text format.
Exam Policy:	Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook).
References	
University Rules and Procedures	
Disability Statement (See Student Handbook):	
Academic Misconduct (See Student Handbook):	Students with disabilities, including learning disabilities, who wish to request accommodations in class should register with the Services for Students with Disabilities (SSD) early in the semester so that appropriate arrangements may be made. In accordance with federal laws, a student requesting special accommodations must provide documentation of their disability to the SSD coordinator. Students should also inform the instructor of their need for accommodations immediately at the outset of the course so that a solution designed to being successful in class can be produced.
Forms Of Academic Dishonesty:	You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with your Student Handbook, especially the section on academic misconduct. Students who engage in academic misconduct are subject to university disciplinary procedures.
Nonacademic Misconduct (See Student Handbook)	<ol style="list-style-type: none"> 1. Cheating: deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not mastered; giving or receiving aid unauthorized by the instructor on assignments or examinations. 2. Academic misconduct: tampering with grades or taking part in obtaining or distributing any part of a scheduled test. 3. Fabrication: use of invented information or falsified research. 4. Plagiarism: unacknowledged quotation and/or paraphrase of someone else's words, ideas, or data as one's own in work submitted for credit. Failure to identify information or essays from the Internet and submitting them as one's own work also constitutes plagiarism.
Sexual misconduct (See Student Handbook):	The university respects the rights of instructors to teach and students to learn. Maintenance of these rights requires campus conditions that do not impede their exercise. Campus behavior that interferes with either: (1) the instructor's ability to conduct the class; (2) the inability of other students to profit from the instructional program, or (3) campus behavior that interferes with the rights of others will not be tolerated. An individual engaging in such disruptive behavior may be subject to disciplinary action. Such incidents will be adjudicated by the Dean of Students under nonacademic procedures.
Student Academic Appeals Process	Sexual harassment of students and employers at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating this policy will be subject to disciplinary action.
Technical Considerations for Online and Web-Assist Courses	Authority and responsibility for assigning grades to students rests with the faculty. However, in those instances where students believe that miscommunication, errors, or unfairness of any kind may have adversely affected the instructor's assessment of their academic performance, the student has a right to appeal by the procedure listed in the Undergraduate Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint.
Minimum Hardware and Software Requirements	
Netiquette (online etiquette):	<p>Pentium with Windows XP or PowerMac with OS 9</p> <ul style="list-style-type: none"> -56K modem or network access -Internet provider with SLIP or PPP -8X or greater CD-ROM -64MB RAM -Hard drive with 40MB available space -15" monitor, 800x600, color or 16 bit -Sound card w/speakers -Microphone and recording software -Keyboard & mouse -Netscape Communicator ver. 4.61 or Microsoft Internet Explorer ver. 5.0 /plug-ins

	-Participants should have a basic proficiency of the following computer skills: ·Sending and receiving email ·A working knowledge of the Internet ·Proficiency in Microsoft Word ·Proficiency in the Acrobat PDF Reader ·Basic knowledge of Windows or Mac O.S.
Technical Support:	Students are expected to participate in all discussions and virtual classroom chats when directed to do so. Students are to be respectful and courteous to others in the discussions. Foul or abusive language will not be tolerated. When referring to information from books, websites or articles, please use APA standards to reference sources.
Communication Expectations and Standards:	Students should call the Prairie View A&M University Helpdesk at 936-261-2525 for technical issues with accessing your online course. The helpdesk is available 24 hours a day/7 days a week. For other technical questions regarding your online course, call the Office of Distance Learning at 936-261-3290 or 936-261-3282
Submission of Assignments-On Line Courses:	All emails or discussion postings will receive a response from the instructor, usually within 48 hours. Urgent emails should be marked as such. Check regularly for responses. You can send email anytime that is convenient to you, but the instructors will check their email messages continuously during the day throughout the work-week (Monday through Friday) during normal office hours. Instructors should respond to email messages during the work-week by the close of business (5:00 pm) on the day following their receipt of them. Emails received on Friday will be responded to by the close of business on the following Monday.
	ONLINE SUBMISSION of WORK must be done through ECOURSES

ACCREDITATION/ASSESSMENT CRITERIA Table No. 1-NAAB CRITERIA

This course is structured to assist the student meet the following criteria shown in **Table No. 1** as established by the National Architectural Accreditation Board (NAAB). To view the entire list, go to the NAAB website, www.naab.org and access "2014 NAAB Conditions for Accreditation."

Performance Criteria:	Ability □	Understanding □	Course Learning Outcomes Competencies (T, R, I)		
			T Taught	R Reinforced	I Utilized/ Integrated
REALM A: Critical Thinking and Representation					
A.1. Professional Communication Skills (Ability)					
A.2. Design Thinking Skills (Ability)					
A.3. Investigative Skills (Ability)					
A.4. Architectural Design Skills (Ability)					
A.5. Ordering Systems (Ability)					
A.6. Use of Precedents (Ability)					
A.7. History and Global Culture (Understanding)					
A.8. Cultural Diversity and Social Equity (Understanding)					
REALM B: Building Practices, Technical Skills, and Knowledge					
B.1. Pre-Design (Ability)					
B.2. Site Design (Ability)					
B.3. Codes and Regulations (Ability)					
B.4. Technical Documentation (Ability)					
B.5. Structural Systems (Ability)					
B.6. Environmental Systems (Ability)	□		T		
B.7. Building Envelope Systems and Assemblies (Understanding)					
B.8. Building Materials and Assemblies (Understanding)					
B.9. Building Service Systems (Understanding)					
B.10. Financial Considerations (Understanding)					
REALM C: Integrated Architectural Solutions					
C.1. Research (Understanding)					
C.2. Integrated Evaluations and Decision-Making Design Process (Ability)					
C.3. Integrative Design (Ability)					

REALM D: Professional Practice

D.1. Stakeholder Roles in Architecture (Understanding)					
D.2. Project Management (Understanding)					
D.3. Business Practices (Understanding)					
D.4. Legal Responsibilities (Understanding)					
D.5. Professional Conduct (Understanding)					









ACCREDITATION/ASSESSMENT CRITERIA TABLE 2: ACCE CRITERIA

This course is structured to assist the student meet the following criteria shown in **Table No. 1** as established by the American Council for Construction Education (ACCE) *Standards and Criteria for Accreditation*. To view the entire list, go to the ACCE website, www.acce-hq.org and view the "Accreditation Procedures."

Course Learning Outcomes:	Competencies (T, R, I)		
	T Taught	R Reinforced	I Utilized/ Integrated
Learn the critical knowledge related to the important role of sustainable design , construction, and maintenance of sustainable buildings.	<input type="checkbox"/>		
Understand the metrics of sustainable building performance tools .	<input type="checkbox"/>		
Understand and analyze high performance buildings	<input type="checkbox"/>		
Prepare a team project to analyze a space for sustainable performance .	<input type="checkbox"/>		
Understand the interactive aspects of sustainable design and construction.	<input type="checkbox"/>		
Develop and demonstrate the ability to solve environmental challenges .	<input type="checkbox"/>		
Develop and demonstrate the ability to effectively communicate to the project team your point of view in the sustainable process.	<input type="checkbox"/>		
Prepare a research paper demonstrating your knowledge of a benchmark sustainable building project .	<input type="checkbox"/>		

COURSE OUTLINE: EVENT AND LECTURE SCHEDULE



This schedule is subject to change as the semester proceeds in order to cover the most important material in the time allotted. Any revisions will be duly noted and announced in class. All referenced readings are taken from the required text.

	Registration/Assembly Dates		Dates exam scores will be posted
	Key Dates		Holidays
	Graduation Applications		Guest lectures
	Dates for Exams		Project Team Workshop

16 WEEK CALENDAR

Week One: Topic August 26, 2019	INTRO to Sustainability Metrics and Performance-Based Frameworks Becoming a LEED Green Associate	
Chapter (s):	<u>LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition</u> "Section 1: The Environmental Impacts of Buildings; What is Green Building?; The Rise of the Green Building Industry; Green Building and Climate Change" <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition</u> "Becoming a LEED Green Associate"	
Assignment (s):	01 Weekly Reading Notes due Sept. 2	
University Events: <input type="checkbox"/>	August 26, 2019	FIRST DAY of ALL CLASSES
	August 26, 2019	LATE REGISTRATION/ADD COURSES/CHANGE COURSE SCHEDULE ENDS
Week Two: Topic Sept. 2, 2019	The LEED Green Associate Test Process	
Chapter (s):	<u>LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition</u> "Section 1: Green Building over Time; Green Building and Location; Green Building Costs and Savings; Beyond Green; Green Building Expertise + Section 5: About USGBC; About LEED" <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition</u> "The Test Process"	
Assignment (s):	02 Weekly Reading Notes due Sept. 9	
University Events: <input type="checkbox"/>	August 31, 2019	FINAL DAY to ADD CLASSES
	September 02, 2019	LABOR DAY HOLIDAY - University Closed
Week Three: Topic Sept. 9, 2019	LEED v4 Core Concepts and Themes	
Chapter (s):	<u>LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition</u> "Section 2: Systems Thinking" <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition</u> "LEED v4 Core Concepts and Themes"	
Assignment (s):	03 Weekly Reading Notes due Sept. 16	
	September 12, 2019	NOTE September 11 FINAL DAY to WITHDRAW without an Academic Record- WITHDRAWAL FROM COURSES "WITH ACADEMIC RECORD" (W) BEGINS
Week Four: Topic Sept. 16, 2019	Overview of USGBC and LEED	
Chapter (s):	<u>LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition</u> "Section 2: Life-cycle Approach; Integrative Process" <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition</u> "Overview of USGBC and LEED"	
Assignment (s):	04 Weekly Reading Notes due Sept. 23	
Week Five: Topic Sept. 23, 2019	Location and Transportation	
Chapter (s):	<u>LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition</u> "Section 3: Getting Started; Establishing an Iterative Process; Team Selection; Goal Setting + Section 4 (Location and Transportation): Location; Transportation; Neighborhood Pattern and Design" <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition</u> "Location and Transportation"	
Assignment (s):	05 Weekly Reading Notes due Sept. 30	
Week Six: Topic	Sustainable Sites	

Sept. 30, 2019	
Chapter (s):	LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition "Section 3: Observation of the System; Exploration and Selection of Technologies and Strategies; Implementation; On going Performance + Section 4 (Sustainable Sites): Site Design and Management; Rainwater Management; Heat Island Effect" LEED Green Associate: Exam Preparation Guide LEED v4 Edition "Sustainable Sites"
Assignment (s):	06 Weekly Reading Notes due Oct.7
Week Seven: Topic Oct. 7, 2019	Water Efficiency
Chapter (s):	LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition "Section 4 (Water Efficiency): Indoor Water Use; Outdoor Water Use " LEED Green Associate: Exam Preparation Guide LEED v4 Edition "Water Efficiency"
Assignment (s):	07 Mid-term REVIEW
Week Eight: Topic Oct. 14, 2019	MID-TERM EXAM and MID-TERM PROJECT DUE
Chapter (s):	UPLOAD ALL WORK FOR CREDIT BY MONDAY THE 14TH at 6:00pm
Assignment (s):	MID-TERM
Week Nine: Topic Oct.21, 2019	REVIEW of EXAM and PROJECT Presentations
University Events: <input type="checkbox"/>	October 22, 2019 <input type="checkbox"/> MID-TERM EXAM GRADES DUE
Week Ten: Topic Oct.28, 2019	Energy and Atmosphere
Chapter (s):	LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition "Section 4 (Energy and Atmosphere): Energy Demand; LEED in Practice; Energy Efficiency; Renewable Energy; Ongoing Energy Performance" LEED Green Associate: Exam Preparation Guide LEED v4 Edition "Energy and Atmosphere"
Assignment (s):	08 Weekly Reading Notes due Nov. 4
University Events: <input type="checkbox"/>	NOTE! NOVEMBER 01, 2019 - FINAL DAY TO WITHDRAW FROM COURSES (w) ON ACADEMIC RECORD
Week Eleven: Topic Nov. 4, 2019	Materials and Resources
Chapter (s):	LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition "Section 4 (Materials and Resources): Conservation of Materials; Environmentally Preferable Materials; Waste Management; LEED in Practice" LEED Green Associate: Exam Preparation Guide LEED v4 Edition "Materials and Resources"
Assignment (s):	08 Weekly Reading Notes due Nov. 11
Week Twelve: Topic Nov. 11, 2019	Indoor Environmental Quality
Chapter (s):	LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition "Section 4 (Indoor Environmental Quality): Indoor Air Quality; Lighting, Acoustics, and Occupant Experience; LEED in Practice" LEED Green Associate: Exam Preparation Guide LEED v4 Edition "Indoor Environmental Quality"
Assignment (s):	08 Weekly Reading Notes due Nov. 18
Week Thirteen: Topic Nov. 18, 2019	Innovation and Regional Priority
Chapter (s):	LEED Core Concepts Guide: An Introduction to LEED and Green Building 3rd Edition

	"Section 4 (Innovation)" <u>LEED Green Associate: Exam Preparation Guide LEED v4 Edition "Innovation and Regional Priority"</u>	
Assignment (s):	09 FINAL EXAM REVIEW	
Week Fourteen: Topic Nov. 25, 2019	Final Exam Review	
Assignment (s):	Review for Final Exam	
University Events: <input type="checkbox"/> 	November 28-29, 2019	NOTE! THANKSGIVING DAY (UNIVERSITY CLOSED)
Week Fifteen Topic Dec. 2, 2019	Final Exam	
Chapter (s):		
Assignment (s):	UPLOAD ALL WORK BY - DECEMBER 02, 2019	
University Events: <input type="checkbox"/>	DEC. 3, 2019	LAST DAY OF CLASS
	DEC. 4- 10 Final Exam Period	FINAL EXAM Grades Posted by DECEMBER 9, 2019
Week Sixteen		
<input type="checkbox"/>	December 12, 2019	FINAL GRADES DUE FOR GRADUATING CANDIDATES
	December 10, 2019	COMMENCEMENT
<input type="checkbox"/>	December 17, 2019	FINAL GRADES DUE FOR ALL STUDENTS

In order to assure that you have read over this entire document you are required to sign the Statement of Agreement on the final page of the syllabus and return it at the start of second class period. This will be our contract that you have read over the entire syllabus and that you understand what is expected of you in this class.

STATEMENT OF AGREEMENT

I have read the Course Syllabus for **ARCH 3463** including the Class Lecture and Event Schedule, and agree to abide by the conditions for the class as spelled out in this document. My signature indicates my personal commitment to meeting the course objectives and succeeding in this educational endeavor.

Signature-Student

Student name (Please print neatly)

Student ID #

Date

Signature-Instructor

Instructors name

Date

RETURN THIS PAGE FROM THE SYLLABUS TO THE INSTRUCTOR TO COMPLETE YOUR ENROLLMENT IN THIS COURSE.

 **RECEIVED WITH STUDENT'S SIGNATURE:** _____

☒ **ENTERED INTO GRADE BOOK:** _____
