Course Title: Environmental Systems
Course Prefix: ARCH  Course No.: 3345  Section No.: P01

“.the act of architecture is not finished when the design is done, but when the building is built. However, must students see, and are taught, that the design is the end product.” Gerald Weisbach, FAIA

School of Architecture
- Architecture
- Construction Science
- Art
- Digital Media Art
- Community Development

Class Meeting Days & Times: Thursday; 6:30 PM - 9:20 PM
Catalog Description: 3 semester hours. Fundamentals of Mechanical, Electrical, Lighting, Plumbing systems with a brief overview of Acoustics and Vertical Transportation systems.
Prerequisites: NA
Co-requisites: NA
Mode of Instruction: ☑ Face-to-face  ☐ On-line  ☐ Hybrid

Instructor: Huiyi Xu, M. Arch, MPH
Adjunct Professor
Office Location: School of Architecture, Prairie View A&M University
Room 248
Office Telephone: 936) 261-9820
Email Address: huxu@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: By appointment (Monday and Wednesday 1:00PM -2:30PM preferred), meetings will be conducted via ZOOM. Students are advised to make appointments with the professor ahead of time and be
specific with the subject matter to be discussed. Students must prepare for their appointment by having all applicable materials and information submitted to the instructor prior to the meeting.

Virtual Office Hours:


Recommended Text/Readings: Professor will provide supplemental Required Handouts throughout the semester as required.

Course Goals and Overview:

This course is designed for Architects to have a general understanding of the various MEP systems that are integral in all buildings. The student will complete this course with a basic understanding of the various HVAC systems, Lighting Systems, Electrical and Plumbing Distribution, Environmental Impacts, and Solar Exposure Impacts on the buildings and these systems. At The end of the semester the students will be introduced to basic Acoustic Design and Vertical Circulation Systems. The students will be required to prepare a research paper on a building of their choice discussing the specific building systems which are unique to that building and the successes or failures of the systems and the overall building.

Course Outcomes/Learning Objectives:

At the end of this course, the students will:

<table>
<thead>
<tr>
<th>No.</th>
<th>Learning Objectives</th>
<th>Core Curriculum Outcome Alignment</th>
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</thead>
<tbody>
<tr>
<td>3453.1</td>
<td>Describe the different building environmental systems</td>
<td>1A</td>
</tr>
<tr>
<td>3453.2</td>
<td>Understand the importance of site analysis and the environmental impact that climate plays in the building system designs</td>
<td>1A, 1B</td>
</tr>
<tr>
<td>3453.3</td>
<td>Understand the differences and the impact on the building of various HVAC systems</td>
<td>SLO 20</td>
</tr>
<tr>
<td>3453.4</td>
<td>Understand the differences and the impact of various lighting systems</td>
<td>4A</td>
</tr>
<tr>
<td>3453.5</td>
<td>Have an understanding and appreciation for Sanitary, Storm, and Domestic Water Plumbing systems and different Fire suppression Systems</td>
<td>SLO 20</td>
</tr>
<tr>
<td>3453.6</td>
<td>Have a general understanding of various vertical transportation systems</td>
<td>3A</td>
</tr>
<tr>
<td>3452.7</td>
<td>Have a General Understanding of basic acoustic principals</td>
<td>1A</td>
</tr>
</tbody>
</table>

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/Quiz/Papers/Exercises:** Written assignments designed to supplement and reinforce course material
- **Exams:** Written tests designed to measure knowledge of presented course material
- **Projects:** Assignments designed to measure ability to apply presented course material
- **Class Attendance/Participation and Discussion Boards:** Daily attendance and participation in class discussions

## Grading Matrix

<table>
<thead>
<tr>
<th>Instrument</th>
<th>Value (points or percentages)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assignments</td>
<td>10 quizzes at 10 points each&lt;br&gt;• Late submittal: -10% point penalty. No late submittal after the submittal platform is closed on CANVAS</td>
<td>20%</td>
</tr>
<tr>
<td>Final Project and Presentation</td>
<td>100 points&lt;br&gt;• If students cannot make the Final Presentation by the assigned day due to the University Approved Excuse, students need to get approval for the late presentation before the assigned day by instructor. Without approving, the Final Presentation is “0”.</td>
<td>25%</td>
</tr>
<tr>
<td>Exercises</td>
<td>3 Exams at 100 points each</td>
<td>45%</td>
</tr>
<tr>
<td>Class Attendance/Participation</td>
<td>1 point each&lt;br&gt;Includes attendance and participation&lt;br&gt;• - 1 absent&lt;br&gt;• - 0.5 late&lt;br&gt;• - 0.5 left early</td>
<td>10%</td>
</tr>
</tbody>
</table>

**Total:** 100%

| Additional Credit/Bonus                         |                                                                                           |       |
| Total:                                         |                                                                                           | 100%  |

**Grade Determination:**

- **A** = 89.50-100 %
- **B** = 79.50–89.49 %
- **C** = 76.50–79.49 %
- **D** = 59.50–69.49 %
- **F** = 59.49% points or below

If a student has stopped attending the course (i.e. “stopped out”) at any point after the first day of class but did not officially withdraw from the course and has missed assignments and exams and performed below the grade level of a D, a grade of FN (failed non-attendance) will be assigned for the final course grade to ensure compliance with the federal Title IV financial aid regulations. In contrast, if the student has completed all assignments and exams, but performed below the grade level of a D, a grade of F will be assigned for the final course grade.

Students need to follow the Class Attendance Policy and Excused Absent Policy. There is no exception for any absence.

## Course Procedures: *Edit to comply with your course.*

| Taskstream | 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 Canvas. |

**ARCH 3345 P01**<br>ENVIRONMENTAL SYSTEMS<br>PRAIRIE VIEW A&M UNIVERSITY<br>COURSE SYLLABUS<br>SCHOOL OF ARCHITECTURE
class Attendance policy (see catalog for full Attendance policy)

Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet. Excessive absenteeism, whether excused or unexcused, may result in a student's course grade being reduced or in assignment of a grade of "F". Absences are accumulated beginning with the first day of class during regular semesters and summer terms. Each faculty member will include the University's attendance policy in each course syllabus.

Instructor's Attendance and Participation Policy

Prairie View A&M University requires regular class attendance. Attending all classes supports full academic development of each learner whether classes are taught with the instructor physically present or via distance learning technologies such as interactive video and/or internet. Absences are accumulated beginning with the first day of class during regular semesters and summer terms. If you fail to submit the weekly tasks when due, you will be marked absent for that week.

Participation and absences are accumulated beginning with the first day of class on August 25, 2022. 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:

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.
6. Confinement because of illness.
7. Required participation in military duties.

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 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.

personal conduct

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:

1. During regular class periods all students are expected to dress appropriately in accordance with university regulations so that no disruptions in the learning experience will occur.
2. No hats or caps will be allowed to be worn in the classroom during class sessions. 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. Dress Code for Presentations: 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. **Students should not be eating food or consuming drinks** during the discussion sessions. No food or drink is allowed in the classroom at any time.

5. **Cellular telephones are to be turned off or put on silent ring tone** during the class period. 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. **Laptops must emit no noise**. 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. **Harassment** of your fellow students of any kind will not be tolerated.

### Conduct of the Class

Please note the following rules for the conduct of the class.

1. **Class will begin at the appointed time.**

2. **Class is dismissed when so indicated by the instructor.** Students are expected to be on time and stay throughout the entire class period. Leaving the classroom presentation or discussion board before the class is dismissed without prior approval from the instructor will result in a loss of participation for that class.

3. **Lecture Notes and Handouts** will be posted on Canvas or 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.

### 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 and quizzes will be announced online via Canvas as scheduled. Exams should be taken as scheduled. No makeup examinations will be allowed except under documented emergencies (See Student Handbook).

### COVID-19 Campus Safety Measures

[NOTE: Delete this section when the COVID-19 pandemic is over]

To promote public safety and protect students, faculty, and staff during the coronavirus pandemic, PVAMU has adopted policies and practices to limit virus transmission.

- **Self-reporting** – Students who test positive for COVID-19 are required to report their positive test results within 48 hours using the PVAMU Self-Reporting Form. Proof of off-campus and self-administered home test results must be sent to covid-19@pvamu.edu. Proof for self-administered home test is a picture of the test with a photo ID in the same photo.
- **Self-monitoring** – Students should follow public health guidance to help slow the spread of the virus, including being vaccinated. Students who have a fever or exhibit symptoms of COVID-19 should not participate in face-to-face instruction.
- **Face Coverings** – Face coverings (KN-95, surgical mask, etc.) are highly recommended in classrooms, teaching laboratories, common spaces such as lobbies and hallways, public study spaces, libraries, academic resource and support offices, and outdoor spaces where 6 feet of physical distancing is challenging to maintain reliably.
- **Physical Distancing** – Physical distancing should be maintained between students, instructors, and others in course and course-related activities where possible.
- **Personal Illness and Quarantine** – Students required to quarantine are to participate in courses and course-related activities remotely and must not attend face-to-face course activities. Communication with the student's instructor for remote support will take place by the Office of the Assistant Vice President for Academic Engagement and Success. Students under quarantine are expected to participate in courses and complete graded work unless they have symptoms that are too severe to participate in course activities. Students experiencing personal injury or illness that is too severe for the student to attend class may qualify for an excused absence. To receive an excused absence,
students must provide appropriate documentation to the Office for Student Conduct, studentconduct@pvamu.edu.

- Questions – For answers regarding COVID-19 policies and/or procedures, students should refer to www.pvamu.edu/coronavirus or email covid-19@pvamu.edu.

### Professional Organizations and Journals

### References

### University Rules and Procedures:

#### Disability Statement (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.

#### Academic Misconduct:

Academic dishonesty is defined as any form of cheating or dishonesty that has the effect or intent of interfering with any academic exercise or fair evaluation of a student's performance. The college faculty can provide additional information, particularly related to a specific course, laboratory, or assignment.

You are expected to practice academic honesty in every aspect of this course and all other courses. Make sure you are familiar with the University Administrative Guidelines on Academic Integrity, which can be found on the Academic Integrity webpage. Students who engage in academic misconduct are subject to university disciplinary procedures. As listed in the University Administrative Guidelines on Academic Integrity, the University Online Catalog, and the Student Code of Conduct, the following are examples of prohibited conduct. This list is not designed to be all-inclusive or exhaustive. In addition to academic sanctions, any student found to have committed academic misconduct that is also a violation of criminal law may also be subject to disciplinary review and action by the Office of Student Conduct (as outlined in the Student Code of Conduct).

#### Forms Of Academic Dishonesty:

1. **Cheating:** Deception in which a student misrepresents that he/she has mastered information on an academic exercise that he/she has not learned, giving or receiving aid unauthorized by the instructor on assignments or examinations. Examples: unauthorized use of notes for a test; using a "cheat sheet" on a quiz or exam; any alteration made on a graded test or exam which is then resubmitted to the teacher;

2. **Plagiarism:** Careless or deliberate use of the work or the ideas of another; representation of another's work, words, ideas, or data as your own without permission or appropriate acknowledgment. Examples: copying another's paper or answers, failure to identify information or essays from the internet and submitting or representing it as your own; submitting an assignment which has been partially or wholly done by another and claiming it as yours; not properly acknowledging a source which has been summarized or paraphrased in your work; failure to acknowledge the use of another's words with quotation marks;

3. **Collusion:** When more than one student or person contributes to a piece of work that is submitted as the work of an individual;

4. **Conspiracy:** Agreeing with one or more persons to commit an act of academic/scholastic dishonesty; and

5. **Multiple Submission:** Submission of work from one course to satisfy a requirement in another course without explicit permission. Example: using a paper prepared and graded for credit in one course to fulfill a requirement and receive credit in a different course.

#### Nonacademic Misconduct:

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. The Office of Student Conduct will adjudicate such incidents under nonacademic procedures.

| **Sexual Misconduct** | Sexual harassment of students and employees at Prairie View A&M University is unacceptable and will not be tolerated. Any member of the university community violating the university's sexual harassment policy will be subject to disciplinary action. In accordance with the Texas A&M University System guidelines, your instructor is obligated to report to the Office of Title IX Compliance (titleixteam@pvamu.edu) any instance of sexual misconduct involving a student, which includes sexual assault, stalking, dating violence, domestic violence, and sexual harassment, about which the instructor becomes aware during this course through writing, discussion, or personal disclosure. The faculty and staff of PVAMU actively strive to provide a learning, working, and living environment that promotes respect that is free from sexual misconduct, discrimination, and all forms of violence. If students, faculty, or staff would like assistance or have questions, they may contact the Title IX Coordinator at 936-261-2144 or titleixteam@pvamu.edu. More information can be found at www.pvamu.edu/titleix, including confidential resources available on campus. |
| **Protections and Accommodations for Pregnant and Parenting Students** | The U.S. Department of Education’s Office for Civil Rights (OCR) enforces, among other statutes, Title IX of the Education Amendments of 1972. Title IX protects people from discrimination based on sex, sexual orientation, and gender identity in education programs or activities that receive federal financial assistance. This protection includes those who may be pregnant and parenting. Title IX states: “No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.” Students seeking accommodations related to pregnancy or parenting should contact the Office of Title IX for information, resources, and support at titleixteam@pvamu.edu. Additional information and/or support may be provided by the Office of Disability Services or the Office of the Dean of Students. |
| **Non-Discrimination Statement** | Prairie View A&M University does not discriminate on the basis of race, color, sex, religion, national origin, age, disability, genetic information, veteran status, sexual orientation, or gender identity in its programs and activities. The University is committed to supporting students and complying with The Texas A&M University System non-discrimination policy. It seeks to establish an environment that is free of bias, discrimination, and harassment. If you experience an incident of discrimination or harassment, we encourage you to report it. If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are individuals who can meet with you. The Director of Equal Opportunity & Diversity has been designated to handle inquiries regarding the non-discrimination policies and can be reached at Harrington Science Building, Suite 109 or by phone at 936-261-1744 or 1792. |
| **Student Academic Appeals Process** | 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 University Catalog and by doing so within thirty days of receiving the grade or experiencing any other problematic academic event that prompted the complaint. Students can file Academic Complaints and/or Grade Appeals at this [webpage](https://www.pvamu.edu/library/). |
| **Student Support and Success:** | **John B. Coleman Library**

The John B. Coleman Library’s mission is to enhance the scholarly pursuit of knowledge, to foster intellectual curiosity, and to promote life-long learning and research through our innovative services, resources, and cultural programs, which support the Prairie View A&M University’s global mission of teaching, service, and research. It maintains library collections and access both on campus, online, and through local agreements to further the educational goals of students and faculty. Website: [https://www.pvamu.edu/library/](https://www.pvamu.edu/library/);

Phone: 936-261-1500

**Academic Advising Services**

Academic Advising Services offers students a variety of services that contributes to student success and leads towards graduation. We assist students with understanding
<table>
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<tr>
<th><strong>The University Tutoring Center</strong></th>
<th>The University Tutoring Center (UTC) offers free tutoring and academic support to all registered PVAMU students. The mission of the UTC is to help provide a solid academic foundation that enables students to become confident, capable, independent learners. Competent and caring staff and peer tutors guide students in identifying, acquiring, and enhancing the knowledge, skills, and attitudes needed to reach their desired goals. Tutoring and academic support are offered face-to-face in the UTC, in virtual face-to-face sessions (<a href="https://www.pvamu.edu/student-success/sass/university-tutoring-center/">https://www.pvamu.edu/student-success/sass/university-tutoring-center/</a>), and through online sessions (<a href="https://www.pvamu.edu/pvplace/">https://www.pvamu.edu/pvplace/</a>). Other support services available for students include Supplemental Instruction, Study Break, Academic Success Workshops, and Algebra Study Jam. Location: J. B. Coleman Library, Rm. 307; Phone: 936-261-1561; Email: <a href="mailto:pvvtutoring@pvamu.edu">pvvtutoring@pvamu.edu</a>; Website: <a href="https://www.pvamu.edu/student-success/sass/university-tutoring-center/">https://www.pvamu.edu/student-success/sass/university-tutoring-center/</a></th>
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<tr>
<td><strong>Writing Center</strong></td>
<td>The Writing Center provides well-trained peer tutors to assist students with writing assignments at any stage of the writing process. Tutors help students with various writing tasks from understanding assignments, brainstorming, drafting, revising, editing, researching, and integrating sources. Students have free access to Grammarly online writing assistance. Grammarly is an automated proofreading and plagiarism detection tool. Students must register for Grammarly by using their student email address. In addition, students have access to face-to-face and virtual tutoring services either asynchronously via email or synchronously via Zoom. Location: J. B. Coleman Library, Rm. 209; Phone: 936-261-3724; Website: <a href="https://www.pvamu.edu/student-success/writing-center/">https://www.pvamu.edu/student-success/writing-center/</a>; Grammarly Registration: <a href="https://www.grammarly.com/enterprise/signup">https://www.grammarly.com/enterprise/signup</a></td>
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<tr>
<td><strong>Academic Early Alert</strong></td>
<td>Academic Early Alert is a proactive system of communication and collaboration between faculty, academic advisors, and PVAMU students that is designed to support student success by promptly identifying issues and allowing for intervention. Academic Early Alerts help students by providing a central location to schedule advising appointments, view advisor contact information, and request assistance. Students who recognize that they have a problem that is negatively affecting their academic performance or ability to continue school may self-refer an Academic Early Alert. To do so, students will log in to PV Place and click on Academic Early Alert on the left sidebar. Phone: 936-261-5902; Website: <a href="https://www.pvamu.edu/student-success/early-alert/">https://www.pvamu.edu/student-success/early-alert/</a></td>
</tr>
<tr>
<td><strong>Student Counseling Services</strong></td>
<td>The Student Counseling Services unit offers a range of services and programs to assist students in maximizing their potential for success: short-term individual, couples, and group counseling, as well as crisis intervention, outreach, consultation, and referral services. The staff is licensed by the State of Texas and assists students who are dealing with academic skills concerns, situational crises, adjustment problems, and emotional difficulties. Information shared with the staff is treated confidentially and in accordance with Texas State Law. Location: Hobart Taylor, 2nd floor; Phone: 936-261-3564; Website: <a href="https://www.pvamu.edu/healthservices/student-counseling-services/">https://www.pvamu.edu/healthservices/student-counseling-services/</a></td>
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<tr>
<td><strong>Office of Testing Services</strong></td>
<td>Testing Services serves to create opportunities by offering a suite of exams that aid in the students’ academic and professional success. Currently, we administer entrance (HESI A2), college readiness (TSI assessment), Prior Learning (CLEP, DSST), and proctored exams. Location: Wilhelmina Delco, 3rd Floor, Rm. 305; Phone: 936-261-3627; Email: <a href="mailto:aetesting@pvamu.edu">aetesting@pvamu.edu</a>; Website: <a href="http://www.pvamu.edu/testing">www.pvamu.edu/testing</a></td>
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<tr>
<td><strong>Office of Diagnostic Testing and Disability Services</strong></td>
<td>The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe</td>
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you have a disability requiring an accommodation, contact the Office of Disability Services. As a federally-mandated educational support unit, the Office of Disability Services serves as the repository for confidential disability files for faculty, staff, and students. For persons with a disability, the Office develops individualized ADA letters of request for accommodations. Other services include learning style inventories, awareness workshops, accessibility pathways, webinars, computer laboratory with adapted hard and software, adapted furniture, proctoring non-standardized test administrations, ASL interpreters, ALDs, digital recorders, Livescribe, and a comprehensive referral network across campus and the broader community. Location: Hobart Taylor, Rm. 1D128; Phone: 936-261-3583; Website: https://www.pvamu.edu/disabilityservices/

Center for Instructional Innovation and Technology Services (CIITS)

Distance Learning, also referred to as Distance Education, is the employment of alternative instructional delivery methods to extend programs and services to persons unable to attend college in the traditional manner. The Center for Instructional Innovation and Technology Services (CIITS) supports student learning through online, hybrid, web-assist, and 2-way video course delivery. For more details and contact information, visit: https://www.pvamu.edu/dlearning/distance-learning-2-2/students-2/; Phone: 936-261-3283

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Veteran Affairs

Veterans Services works with student veterans, current military and military dependents to support their transition to the college environment and continued persistence to graduation. The Office coordinates and certifies benefits for both the G.I. Bill and the Texas Hazlewood Act. Location: Evans Hall, Rm. 102; Phone: 936-261-3563; Website: https://www.pvamu.edu/sa/departments/veteranaffairs/

Office for Student Engagement

The Office for Student Engagement delivers comprehensive programs and services designed to meet the co-curricular needs of students. The Office implements inclusive and accessible programs and services that enhance student development through exposure to and participation in diverse and relevant social, cultural, intellectual, recreational, community service, leadership development, and campus governance. Location: Memorial Student Center, Rm. 221; Phone: 936-261-1340; Website: https://www.pvamu.edu/studentengagement/

Career Services

Career Services supports students through professional development, career readiness, and placement and employment assistance. The Office provides one-on-one career coaching, interview preparation, resume and letter writing, and career exploration workshops and seminars. Services are provided for students at the Northwest Houston Center and College of Nursing in the Medical Center twice a month or on a requested basis. Distance Learning students are encouraged to visit the Career Services website for information regarding services provided. Location: Anderson Hall, 2nd floor; Phone: 936-261-3570; Website: https://www.pvamu.edu/careerservices/

Technical Considerations for Online and Web-Assist Courses:

Minimum Hardware and Software Requirements

Minimum Recommended Hardware and Software:

- Intel PC or Laptop with Windows 10 or later version; Mac with OS High Sierra*
- Smartphone or iPad/Tablet with Wi-Fi*
- High speed Internet access
- 8 GB Memory
- Hard drive with 320 GB storage space
- 15" monitor, 800x600, color or 16 bit
- Sound card w/speakers
- Microphone and recording software
- Keyboard & mouse
- Most current version of Google Chrome, Safari or Firefox
*Smartphone, Google Chrome books and Android tablets may not be supported. iPads are the only tablets supported.

**Note:** Be sure to enable Java & pop-ups in the Web browser preferences

**Participants should have a basic proficiency of the following computer skills:**
- Sending and receiving emails
- A working knowledge of the Internet
- Microsoft Word (or a program convertible to Word)
- Acrobat PDF Reader
- Windows or Mac OS
- Video conferencing software

**Netiquette (online etiquette):**
Students are expected to participate in all discussions and virtual classroom chats as directed. Students are to be respectful and courteous to others on discussions boards. Foul or abusive language will not be tolerated. Do not use ALL CAPS for communicating to others AS IT CAN BE INTERPRETED AS YELLING. Avoid slang terms such as “wassup?” and texting abbreviations such as “u” instead of “you.” Limit and possibly avoid the use of emoticons. Be cautious when using humor or sarcasm as tone is sometimes lost in an email or discussion post and the message might be taken seriously or sound offensive.

**Video Conferencing Etiquette:**
When using Zoom, WebEx or other video conferencing tools, confirm the visible area is tidy, clear of background clutter, inappropriate or offensive posters, and other distractions. Ensure you dress appropriately and avoid using high traffic or noisy areas. Stay muted when you are not speaking and avoid eating/drinking during session. Before class session begins, test audio, video and lighting to alleviate technology issues.

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.

During the first week of class each student will be required to acknowledge by replying to a Posting stating that you have reviewed and understand the following Online Netiquette Policy for the course.

1. **Discussion/Zoom / Webcam Behavior**
   When in a Zoom meeting or utilizing your webcam, be sure to act and dress as professionally as you can. You should look the same as you would if we were meeting face-to-face in the instructor’s office or in class. You should be sitting up in a chair and not laying down. Consider how you might look if you were going to be interviewed for a job via Zoom. If you feel as though your behavior or appearance would reflect negatively on you during that situation you are advised against it. You should also try to keep your physical environment where you are working on the class to be as quiet as possible. If there is a television or loud music playing in the background try to limit it, as it can inhibit your ability to be easily heard and understood.
   - Be properly dressed- hair bonnets, caps, pajamas, etc., will not be acceptable when attending class and participating in the discussions.
   - Be punctual
   - Be kind to each other
   - Please mute microphones when lecture is in session
   - Have fun!

2. When posting discussions or e-mailing one another, please be respectful of what you write. Inappropriate language will not be tolerated, and the instructor has the right to determine what is inappropriate. Disrespectful students are subject to discipline or dismissal from the online learning platform for this course. All activities in the classroom will follow standards set in the Student Handbook

3. When creating/posting images do NOT use graphics that have sexual, political or religious implications. If you are unsure if you are unsure if a certain graphic is appropriate, email your instructor privately.

4. Address your peer or instructor with their names for each post or email

5. Do not use ALL CAPS for postings or unnecessary exclamation marks, and not use text messaging-style for official assignment postings & email to the instructor. Caps where
6. When posting critiques, try to be positive with your remarks, at the same time well-seasoned with ideas and comments how your peers can improve their work.

7. This course requires that you give support and feedback to your classmate’s works. If you see that someone does not have any comments made, please review your classmate’s works by posting feedback.

8. Aim at getting your discussion assignments & projects in early. (The instructor permits revisions for better grades, most important personal enrichment and improvement if assignment is posted before the due date.) Late assignments or discussions can slow the class down and will not benefit you as the learner.

9. Include references with your answers when it is cited from. Do not violate copyright laws.

10. Respect examples of Students Works posted online. They are posted as a guide.

**Technical Support:**

Students should go to the Password Reset Tool if they have password issues. The page will provide instructions for resetting passwords and contact information if login issues persist. For other technical questions regarding eCourses, call the Center for Instructional Innovation and Technology Services (CiITS) at 936-261-3283 or email ciits@pvamu.edu. Assignments, Papers, Exercises, and Projects will distributed and submitted through your online course. Directions for accessing your online course will be provided. Additional assistance can be obtained from the Office of Distance Learning.

**ASSIGNMENTS** are due at the start of the class session. No late work will be accepted without proper documentation.

All **DISCUSSION FORUMS** have two due dates. The first one is the **deadline to post your substantive post** (without losing credit), and the second one is to finish up with your responses. This is designed to allow ample time after everyone has answered the question for class discussion. Be sure to check the due dates on the assignment and schedule documents for each module.

**Grade and Evaluation**

Grades for assignments, submissions and exams will be posted within five (5) business days from the due date. You will be notified if those circumstances change. Responses will usually provide a grade and written feedback as well.

**Emails will be responded via email within 24 hours Monday-Friday before 5:00 PM.** There will not be a response to emails asking about the class discussion (check your weekly schedule).

Please send all correspondences to the instructor’s Canvas’ portal. Do not send any course materials, assignments, questions or any email(s) to the instructor’s PV’s webmail Outlook account. This method will allow the instructor to track you and all correspondences to better serve your needs in a timely manner.

**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 and obtain guidance, go to the NAAB website, www.naab.org and access “NAAB 2020 Conditions for Accreditation.”

**Performance Criteria:**

<table>
<thead>
<tr>
<th>Skill</th>
<th>Understanding</th>
<th>Course Learning Outcomes Competencies (T, R, I)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Taught</td>
</tr>
</tbody>
</table>

**STUDENT CRITERIA 1: Health, Safety and Welfare in the Built Environment (Understanding Level)**

<table>
<thead>
<tr>
<th>Performance Criteria</th>
<th>Skill</th>
<th>Understanding</th>
<th>Course Learning Outcomes Competencies (T, R, I)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.A. Impact of Built Environment on Human Health</td>
<td>X</td>
<td>T</td>
<td></td>
</tr>
</tbody>
</table>
### Understanding

1. B. Impact of Built Environment on Safety (Understanding)  
   | X | T |

1. C. Impact of Built Environment on Welfare at Multiple Scales, from building to cities (Understanding)  

### STUDENT CRITERIA 2: Professional Practice (Understanding Level)

2. A. Professional Ethics (Understanding)  
2. B. Regulatory Requirements (Understanding)  
2. C. Fundamental business processes (Understanding)  

### STUDENT CRITERIA 3: Regulatory Context (Understanding Level)

3. A. Life Safety (Understanding)  
   | X | T |

3. B. Land Use (Understanding)  
   | X | T |

3. C. Current Laws and Regulations (Understanding)  

3. D. Evaluative process used to comply with 3.C. (Understanding)  

### STUDENT CRITERIA 4: Technical Knowledge (Understanding Level)

4. A. Emerging Systems of Building Construction (Understanding)  
   | X | T |

4. B. Emerging Technologies of Building Construction (Understanding)  

4. C. Emerging Assemblies of Building Construction (Understanding)  

4. D. Methods and Criteria to Assess use of 4.C. (Understanding)  

### STUDENT CRITERIA 5: Design Synthesis (Skill Level)

5. A. Make Design Decisions within Architectural Projects (Ability)  
5. B. Demonstrate Synthesis of User Requirements (Ability)  
5. C. Demonstrate Synthesis of Regulatory Requirements (Ability)  
5. D. Demonstrate Synthesis of Site conditions (Ability)  
5. E. Demonstrate Synthesis of Accessible Design (Ability)  
5. F. Measurable Environmental Impacts on Design (Ability)  

### STUDENT CRITERIA 6: Building Integration (Skill Level)

6. A. Make Design Decisions within Architectural Projects (Ability)  
6. B. Demonstrate Integration of Building Envelope Systems (Ability)  
6. C. Demonstrate Integration of Building Assemblies (Ability)  
6. D. Demonstrate Integration of Structural Systems (Ability)  
6. E. Demonstrate Integration of Environmental Controls (Ability)  
6. F. Demonstrate Integration of Life Safety (Ability)  
6. G. Measurable Outcomes of Building Performance (Ability)  

### ACCREDITATION/ASSESSMENT CRITERIA TABLE No. 2: ACCE CRITERIA

This course is structured to assist the student meet the following criteria shown in Table No. 2 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.”

<table>
<thead>
<tr>
<th>Course Learning Outcomes</th>
<th>Competencies (T, R, I)</th>
<th>ACCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Create written communications appropriate to the construction discipline.</td>
<td>T Taught</td>
<td>I Assessed</td>
</tr>
<tr>
<td>2. Create oral presentations appropriate to the construction discipline</td>
<td>R Reinforced</td>
<td></td>
</tr>
<tr>
<td>3. Create a construction project safety plan</td>
<td>I Utilized/Integrated</td>
<td></td>
</tr>
<tr>
<td>4. Create construction project cost estimates</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Create construction project schedules</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Analyze professional decisions based on ethical principles.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Analyze construction documents for planning and management of construction processes.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Analyze <strong>methods, materials, and equipment</strong> used to construct projects.</td>
<td><strong>T</strong></td>
</tr>
<tr>
<td>---</td>
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</tr>
<tr>
<td>9.</td>
<td>Apply construction management skills as a member of a <strong>multidisciplinary team</strong>.</td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>Apply <strong>electronic-based technology</strong> to manage the construction process.</td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>Apply basic <strong>surveying techniques</strong> for construction layout and control.</td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>Understand different <strong>methods of project delivery</strong> and the roles and responsibilities of all constituencies involved in the design and construction process.</td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>Understand <strong>construction risk management</strong>.</td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>Understand <strong>construction accounting and cost control</strong>.</td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>Understand <strong>construction quality assurance and control</strong>.</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>Understand <strong>construction project control</strong> processes.</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>Understand the <strong>legal implications</strong> of contract, common, and regulatory law to manage a construction project.</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>Understand the basic principles of <strong>sustainable construction</strong>.</td>
<td><strong>T</strong></td>
</tr>
<tr>
<td>19.</td>
<td>Understand the basic principles of <strong>structural behavior</strong>.</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>Understand the basic principles of <strong>mechanical, electrical and piping systems</strong>.</td>
<td><strong>T</strong></td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Registration/Assembly Dates</th>
<th>Dates exam scores will be posted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Dates</td>
<td>Holidays</td>
</tr>
<tr>
<td>Graduation Applications</td>
<td>Guest lectures</td>
</tr>
<tr>
<td>Dates for Exams</td>
<td>Project Team Workshop</td>
</tr>
<tr>
<td>Proctored Exams</td>
<td>Class Sessions using ZOOM or teleconference technology</td>
</tr>
<tr>
<td>Lecture Completed</td>
<td>Lecture Notes, Assignments, or Articles posted to CANVAS</td>
</tr>
</tbody>
</table>

16 WEEK CALENDAR

**Week One: Topic August 22-26, 2022**

Module 1 – Introduction
Heat/thermal gain; environmental impact on design

| Chapter (s): | Text - Chapter 1, 2, 3, & 4 |
| Assignment (s): | Quiz 1 |
| University Events: | August 22, 2022; TUITION AND FEES PAYMENT DUE DATE @ 5:00 PM  
August 22-29, 2022; LATE REGISTRATION (FEE: $50.00)  
August 23-31, 2022; ATTENDANCE REPORTING PERIOD (ND/SH). Students who do not attend class during this period will have their courses removed and financial aid reduced or cancelled. |

**Week Two: Topic August 29-September 2, 2022**

Module 2 - Thermal Comfort

| Chapter (s): | Text - Chapter 4 |
| Assignment (s): | Quiz 2 |
| University Events: | September 2, 2022; Financial Aid Refunds Begin |

**Week Three: Topic September 5-9, 2022**

Module 3 - Indoor Air Quality & Mechanical System

| Chapter (s): | Text - Chapter 5, 7, 12 |
| Assignment (s): | Quiz 3 |
| University Events: | September 5, 2022; LABOR DAY (University Closed; subject to TAMUS Board of Regents)  
September 7, 2022; CENSUS DATE (12TH CLASS DAY) |

**Week Four: Topic September 12-16, 2022**

Exam 1

<p>| Chapter (s): | |
| Assignment (s): | |
| University Events: | September 13, 2022; DROP FOR NON-PAYMENT OF TUITION AND FEES @ 5:00 PM. |</p>
<table>
<thead>
<tr>
<th>Week Five: Topic</th>
<th>Module 4 – Day Lighting and Lighting Fundamentals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>September 19-23, 2022</strong></td>
<td><strong>Chapter (s):</strong> Text - Chapter 8, 13</td>
</tr>
</tbody>
</table>
| **Assignment (s):** Quiz 4 | **University Events:**  
| September 19, 2022 (Monday) | CENSUS DATE (20th CLASS DAY)  
| September 20, 2022 (Tuesday) | FINAL DAY TO DROP/Withdraw FROM COURSE WITHOUT ACADEMIC RECORD.  
| | WITHDRAWAL FROM COURSES “WITH ACADEMIC RECORD” (W) BEGINS. |

<table>
<thead>
<tr>
<th>Week Six: Topic</th>
<th>Module 5 – Lighting Design Process and Lighting Electrical Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>September 26-30, 2022</strong></td>
<td><strong>Chapter (s):</strong> Text - Chapter 8, 13</td>
</tr>
</tbody>
</table>
| **Assignment (s):** • Quiz 5 | **University Events:**  
| | |  

| Week Seven: Topic | Module 6 – Electricity  
|-----------------|------------------------------------------------|
| **October 3-7, 2022** | **Final Project Release**  
| **Chapter (s):** Text – Part VII | **Assignment (s):**  
| • Quiz 6 | • Final Project  |
| **University Events:** |  
| October 13-15, 2022 (Thursday-Saturday) | Mid-Term Exams  |

| Week Eight: Topic | Exam 2  
|-----------------|------------------------------------------------|
| **October 10-14, 2022** | **Final Project**  
| **Chapter (s):** | **Assignment (s):**  
| **University Events:** |  
| October 13-15, 2022 (Thursday-Saturday) | Mid-Term Exams  |

| Week Nine: Topic | Module 7 – Water and Basic Design  
|-----------------|------------------------------------------------|
| **October 17-21, 2022** | **Module 8 – Water Supply and Waste**  
| **Chapter (s):** Text – Chapter 18,19, 20, 21 | **Assignment (s):**  
| • Quiz 7 | • Final Project  
| **University Events:** |  
| October 17, 2022 (Monday) | STUDENT AND FACULTY NON-CLASS DAY  
| October 19, 2022 (Wednesday) | 2021 Staff Enrichment Day  
| | MID-TERM EXAM GRADES DUE  |

| Week Ten: Topic | Module 9 – Fire and Life safety  
|-----------------|------------------------------------------------|
| **October 24-28, 2022** | **Final Project Release**  
| **Chapter (s):** Text – Chapter 25 | **Assignment (s):**  
| • Quiz 8 | • Final Project  
| **University Events:** |  
| October 28, 2021 (Thursday) |  
| October 27, 2022 (Thursday) | FALL 2022 GRADUATION: FINAL DATE TO APPLY FOR GRADUATION! (Ceremony participation)  
| October 28, 2022 (Friday) | FALL 2022 GRADUATION: Application for Graduation-Degree Conferral Only Begins. (NO ceremony participation or name listed in program.)  
| **October 28, 2022 (Thursday) |  
| **University Events:** |  

**ARCH 3345 P01**  
**ENVIRONMENTAL SYSTEMS**  
**COURSE SYLLABUS**  
**PRAIRIE VIEW A&M UNIVERSITY**  
**SCHOOL OF ARCHITECTURE**  
**15**
### Week Eleven: Topic October 31 - November 4, 2022

**Module 10 – Vertical Transportation**

**Chapter (s):** Text – Part IX

**Assignment (s):**
- Quiz 9
- Final Project

**University Events:**
- November 2, 2020 [Monday] \(\text{FINAL DAY TO WITHDRAW FROM COURSES WITH ACADEMIC RECORD ("W") ENDS} \)

### Week Twelve: Topic November 7 - 11, 2022

**Module 11 – Acoustic**
- **Exam 3 Review**

**Chapter (s):** Text – Chapter 22, 23, 24

**Assignment (s):**
- Quiz 10
- Final Project

**University Events:**
- November 7, 2022 [Monday] \(\text{Priority Registration Period for continuing students for Spring Semester 2023 including December/January Mini-Master. (Special Populations)} \)
- November 8, 2022 [Tuesday] \(\text{Priority Registration Period for continuing students for Spring Semester 2023 including December/January Mini-Master. (Masters and Seniors)} \)
- November 9, 2022 [Wednesday] \(\text{Priority Registration Period for continuing students for Spring Semester 2023 including December/January Mini-Master. (Juniors)} \)
- November 10, 2022 [Thursday] \(\text{Priority Registration Period for continuing students for Spring Semester 2023 including December/January Mini-Master. (Sophomores)} \)
- November 11, 2022 [Friday] \(\text{Priority Registration Period for continuing students for Spring Semester 2023 including December/January Mini-Master. (Freshmen)} \)

### Week Thirteen: Topic November 14 - 18, 2022

**Module 11 – Final Presentation**

**Chapter (s):**

**Assignment (s):**

**University Events:**

### Week Fourteen: Topic November 21 - 25, 2022

**Thanksgiving Holiday - No Class**

**Chapter (s):**

**Assignment (s):**

**University Events:**
- November 24-26, 2022 [Thursday-Saturday] \(\text{THANKSGIVING (UNIVERSITY CLOSED)} \)

### Week Fifteen: Topic November 28 - December 2, 2022

**Exam 3 (December 01, 2022)**

**Chapter (s):**

**Assignment (s):**

**University Events:**
- November 29, 2022 [Tuesday] \(\text{Last day of class for Fall Semester 2022!} \)
- November 30, 2022 [Wednesday] \(\text{Last Day to Withdraw from a Course or the University ("W") for the Fall Semester 2022} \)
- December 1-2, 2022 [Thursday-Friday] \(\text{Study Day (No classes in Session)} \)
- December 2, 2022 [Friday] \(\text{FINAL EXAMINATION PERIOD} \)
- December 2, 2022 [Friday] \(\text{FALL 2022 GRADUATION: Final Day to Apply for Graduation-Degree Conferral Only. (NO ceremony participation or name listed in program.)} \)

### Week Sixteen
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 3345-P01 Fall Semester 2022, 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

Huiyi Xu 8 / 22 /2022
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: ___________________________________