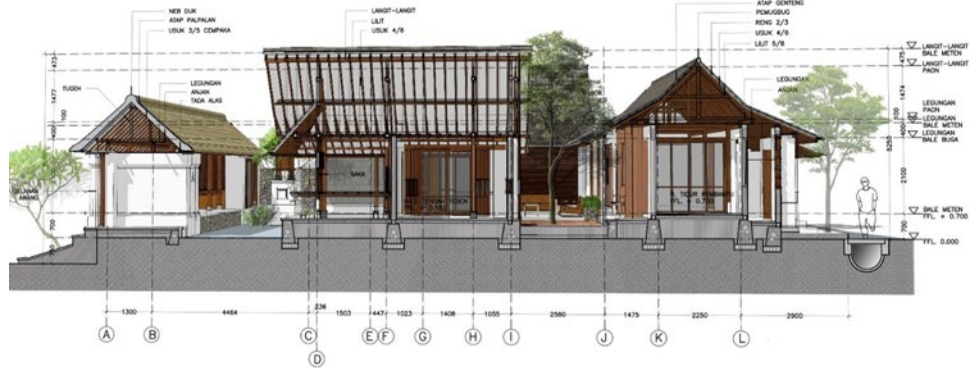


Professor Joe Aranha, Coordinator

joseph.aranha@ttu.edu

Classroom: ARCH 311

Office Hours: W-10:00 - 11:00, F-10:00-12:00 | ARCH Rm1002E



The studio is based upon the premise that appropriate, culturally expressive and sustainable architecture is derived from an understanding of a range of factors including Local materials, construction processes, safety issues, environmental context, local lifestyle and culture.

Students will explore design proposals for a building that will draw from understanding local and regional building traditions developed over generations, understand use of local materials, regional responses to the environment and will propose design solutions that accommodating contemporary needs related to a given building program.

The project will be located within the unique traditional architectural and cultural context of the village of Tenganan in Bali, Indonesia. The program for the project will involve a multifunctional community-oriented building. Harmony with the natural environment, an important component of traditional Balinese architecture, will be a focus of learning in the studio.

Borrowing from the ideas of *sekala* (seen) and *niskala* (unseen), explained in a book on Balinese culture by Fred Eisenman, Jr, students will begin with analyzing case studies of architecture (seen) to identify and understand basic ideas behind those buildings (unseen). Students will be expected to understand and use lessons learnt from the case studies, to derive concepts or strategies for their own design proposals and to represent the 'seen' and the 'unseen' using technical and presentation drawings, diagrams, models, and other forms of design communication. Precedent studies will include traditional architecture of Bali as well as selected works of modern and contemporary architects around the world, recognized for exemplary and innovative designs that draw inspiration from the local.



The following is adapted from the general course syllabus for ARCH 4601 developed by Dr. J Zook, Coordinator

COURSE REQUIREMENTS

- I. Provides instruction in advanced architectural design projects.
- II. Students develop integrated design skills negotiating the complex issues of program, site, and form in a specific cultural context.
- III. Integrates aspects of architectural theory, building technology, and computation into the design process.

1a. “An advanced architectural design project”

The purpose of this fourth-year studio is to develop and integrate your architectural knowledge and skills to design a small community hub existing of two small buildings within a specific geographical, social and cultural context. The hub will consist of a small community-based clinic and a community wellness center/ administration office. Both buildings will have specific features that enhance health and decrease pollution. Students will work in teams of two, with each student designing one building independently and the team working together on site design.

1b. “Negotiating complex issues of form, site, and context”

Buildings for healthcare have specific pragmatic functions but they also need to be places that are user friendly and culturally inclusive so as to allow users to feel safe and comfortable. Buildings for wellness need to accommodate the needs of a community which include people of all ages from older adults to children. Negotiating complex issues arising from functional requirements, limitations and opportunities of a given site, climate and a specific cultural context will be the challenge in this course.

1c. “Theory, building technology, and computation”

This advanced undergraduate studio involves theory, computation, and building technology as follows:

1ci Architectural theory and aesthetics

Specific architectural theory related to a given cultural. For the purpose of this course students will be assigned readings that describe and explain architectural theories related to the built environment in Bali, Indonesia.

Students will be assigned short readings addressing the topics identified above.

1cii. Building Technology and Computation

For the purposes of this course, computation and building technology are entwined. Building technologies create a re-programmable building where embodied energy and operational energy are key considerations. Computation is used to characterize these technologies and will be diagrammatic.

LEARNING OBJECTIVES AND SKILLS¹, MEANS OF EVALUATION, STUDIO METHODS, GRADING

student learning objectives	associated student skills²	evaluation/grading*
1. Develop site design to support wellness 2. Develop site design to reduce building energy use	Site analysis Passive design strategies for massing Precedent studies	Studio review 1, 20% grade See following section, “Review Requirements”
3. Develop building form, including structural grid and	Grid systems and their implications for structure,	Studio review 2, 20% grade

¹ Meet NAAB SC.1 Health, Safety and Welfare in the Built Environment and SC.5 Design Synthesis

² These are student performance objectives for this course.

<p>scheme for mechanical and partition systems, that can easily convert program</p>	<p>program, space, and adaptability</p> <p>Reflected ceiling plans and integrating structure, space, and systems</p>	<p>See following section, "Review Requirements"</p>
<p>4. Develop the building material form to provide:</p> <p>4a. healthy indoor environmental quality</p> <p>4b. reduced material embodied energy and building energy use</p>	<p>Applying principles in design for:</p> <ul style="list-style-type: none"> * indoor environmental quality * reduced material and energy use 	<p>Studio review 3, 30% grade</p> <p>See following section, "Review Requirements"</p>
<p>5. Present a complete final project with visual and verbal clarity and (optional, but preferred) with joy</p>	<p>Strategies for verbal and visual narration</p> <p>Student ownership of an intellectually and formally coherent project</p>	<p>Final review, 30% grade</p> <p>See following section, "Review Requirements"</p>

***Grading**

Grading follows standards from TTU Operating Policy 32.12.

A = Excellent; B = Good; C = Average; D = Inferior (passing, but not necessarily satisfying degree requirements); F = Failure

DESIGN PROJECT

The project for the semester is to design a health and wellness center for the village of Tenganan in Bali, Indonesia. The overall theme of the design is based upon a Balinese concept known as **Sekala- Niskala**.

Sekala refers to what is seen.

Niskala refers to that which is unseen.

In Balinese culture the concept of Sekala- Niskala is a key element of art, rituals, form, layout and order.

This concept when applied to the built environment and architecture refers to those components of buildings that are seen such as walls, roofs, etc versus those components of buildings that are unseen but very important in design. The hidden or unseen components include concepts and factors that generate order, layout, orientation, structural logic, symbolic meaning of forms, etc.

The challenge in this studio to design buildings (Skala-Seen) that are generated by concepts (Niskala- Unseen) that can be clearly explained.

The Balinese in general and the people of Tenganan, in particular are very traditional in their beliefs and ways of life. However, given that the Balinese are an innovative and creative society, they also easily adapt to, absorb or adopt new ideas that can fit into their traditional beliefs and customs, including their architecture. The concept of Sekal-Niskala is therefore important in explaining the logic and concepts behind a design. These concepts in the case of this studio will be a combination of ideas drawn from traditional Balinese architectural (culture) together with principles and strategies for architecture in a tropical climate (local materials and sustainable climate responsive design)

PROGRAM

The program for the semester is to design a community center that comprising of of a small medical clinic / wellness center along with a small administrative office for the village. Both of these functions are provided by

the local regional government and therefore coupled together. The details of the program will be provided separately.

THE SITE

Tenganan is a unique Balinese village in that it is walled. Anything that is built within the village walls must strictly follow centuries old building regulations that are generally not applicable to modern building functions such as an office or clinic. Therefore a site has been made available just outside the main entrance gate of the village. Even though the site is outside the village walls it is important that that the architecture of the new building must blend or fit in with the architectural character of Tenganan. Site information will be provided. Students are expected to 'visit' the site virtually using available online resources and to base their site study and analysis using data that can be obtained on line.

CASE STUDIES AND READINGS

Each student will study, analyze and present two types of precedents. One will consist of an assigned building or architectural component of typical Balinese architecture and construction. The other will be assigned from a selection of contemporary buildings from around the world that draw from local building materials, technologies and forms in innovate ways so as to create regionally sustainable or climate responsive buildings.

Students will be required to read, understand and present basic ideas used in Balinese architectural layouts. Readings on this topic will be provided.

Additionally, students will also be required to read and apply basic layout and orientation strategies for architectural design in tropical climates. These readings will also be provided.

REVIEW REQUIREMENTS

Your studio grade will be based on four reviews. Drawing lists for each review appear below and drawing standards appear in Appendix 1.

4601 Review 1: Site Analysis and precedent studies; September 8

1. Work from small groups: site model (scale to be determined); site and background, and analysis of precedents.
2. Site plan series that conveys site extents, topography, flood plains, easements, required setbacks, and existing plantings, roads, and buildings (scale to be determined)
3. Site sections that convey topography and existing plantings, roads, and buildings (scale to be determined)
4. Site and context photos to explain site and cultural context
5. Diagrammatic representation and analysis of site conditions, contextual influences, and climatic context. SWOT analysis of site
6. Three specific site options developed with building area (approx. 5000 sf) in plan, diagrammed for the following (scale to be determined):
 - a) Prevailing winds and potential for passive ventilation
 - b) Solar orientation and potential for cooling

Solar orientation and potential for visual glare

- c) Solar orientation and potential for daylighting
- d) Potential vehicular access path
- e) Potential pedestrian and cycling paths

4601 Review 2: Concept Design for a Building: Form, Structure, and Systems, September 27

Develop a design strategy (concept) and two options for a building that are based upon the defined concept.

1. Title

2. 25-50 word narrative
3. Program diagrams: At 1'0" = 1/16", draw all programmatic items in plan. Array and label them. For exam, procedure, and consultation rooms, include typical furnishings.
4. Adjacencies graph identifying key spaces that should be directly connected, visually connected, or within threshold distances of one another.
5. How does the precedent study and analysis influence the building design concept and how are they integrated with program, technology, and aesthetics (local architectural traditions and forms).
6. Presentation of two design proposals column grid concepts in plan, section, and plan oblique (1'0" = 1/16").

Drawings will include

Plans

Exploded plan oblique including layers for foundation, column grid, HVAC, and roof: 6 total; 2 programs by three column grid designs; show programmatic zones. (1'0" = 1/8")

Or physical model

Elevations that establish a relation of fenestration to the column grid: 3 total, 1 per column grid (1'0" = 1/8")

Sections that show spatial attributes and integration of building technology: 3 total, 1 per column grid (1'0" = 1/8")

Predesign and concept design will be developed into a research book with the following sections: user, program, context, and precedent studies.

4601 Review 3: Design Development, October 22

1. Title
2. 50-word narrative
3. Plans: All floors, roof, reflected ceiling plan (1'-0" = 1/8"); include plan for accessibility
4. Building sections: 2, (1) longitudinal and (1) cross (1'-0" = 1/8")
5. Building elevations: 4 (1'-0" = 1/8")
6. Wall section (1'0" = 1/2")
7. Exploded plan oblique including foundation, column grid, HVAC, and roof. 1'0" = 1/16"
8. Full building section with developed interior elevations: (1'0" = 1/2").
9. Section perspective (not to scale)
10. Photos of study models showing structural and enclosure 'layers' for the building .
11. Physical model (1'-0" = 1/8")
12. Patient / User p.o.v. render series, 5 renders
13. Provider p.o.v. render series, 5 renders
14. Community member p.o.v. render series, 5 renders

4601 Final Review, Nov 19

Revision and presentation of items from Review 3

4601 Final Submission, Nov 29

Boards (exact format TBD)

Book (exact format TBD)

A ONEDRIVE folder will be established for each student. All work will be submitted physically (pin up) as well as uploaded to this folder on the due dates.

The following course calendar may be modified at the discretion of the instructor and if deemed necessary for the benefit of the class.

Week	Date	Phase	In-studio topic	In-studio activity
1	M Au 25	Pre	All-school meeting & lottery no studio meeting	All-school meeting
1	W Au 25	Pre	WELCOME, OVERVIEW, SYLLABUS REVIEW <i>BEGIN PREDESIGN</i> Group work https://ci.lubbock.tx.us/departments/gis-data-services/gis-web-apps	Studio & phase overview In-class work
1	F Au 27	Pre	On-site documentation: 1:30-4:30 2219 Martin Luther King Jr Road Lubbock TX 79404 Homework: site plans and sections; preliminary design of three site options with observed site conditions	In-person site visit
2	M Au 30	Pre	SUSTAINABLE SITE DESIGN, 1-2pm (McReynolds) Site options with climate and circulation implications	ALL-STUDIO LECTURE In-class work, desk crits
2	W Sep 1	Pre	Complete and prepare presentation format	In-class work, desk crits
2	F Sep 3	Pre	PRE-DESIGN: IN-CLASS REVIEW	
			Work session (Cooke)	In-class independent work
3	M Sep 6	---	NO CLASS: ENJOY YOUR LABOR DAY	
3	W Sep 8	Concept	HEALTH AND SUSTAINABILITY: BASE BUILDING + INFILL, 1-2pm (Zook) For Friday, read "What is population health?"	ALL-STUDIO LECTURE Phase overview
			PRE-DESIGN: IN-CLASS REVIEW	20% of grade
			<i>BEGIN CONCEPT DESIGN</i> Analysis of grid precedent	
3	F Sep 10	Concept	Analysis of grid precedent Analysis of program	In-class work, desk crits
4	M Sep 13	Concept	INTERVENING + RENOVATING, 1-2pm (Martinez) Three grid iterations with programmatic overlay in plan	ALL-STUDIO LECTURE In-class work, desk crits
			CoA Lecture: PI.KL Studio: Open Practice, 3pm	CoA Lecture
4	W Sep 15	Concept	In-class presentation of grid precedents, program	In-class presentation
4	F Sep 17	Concept	Development of grid concepts	In-class work, desk crits
5	M Sep 20	Concept	PASSIVE COOLING DESIGN, 1-2pm (Aranha) Three grid iterations with programmatic overlay in plan	ALL-STUDIO LECTURE In-class work, desk crits
			Development of grid concepts	In-class work, desk crits
5	F Sep 24	Concept	Development of research book as presentation	In-class work, desk crits
6	M Sep 27	Concept	CONCEPT REVIEW JURORED REVIEW	CONCEPT REVIEW (25% grade)
			CoA Lecture: Dawn Finley Lecture: System of Novellies, 3pm	CoA Lecture

Week	Date	Phase	In-studio topic	In-studio activity
6	W Sep 29	DD	CONCEPT REVIEW JURORED REVIEW	CONCEPT REVIEW (25% grade)
			MATERIAL ASSEMBLIES, 1-2pm (Raab) BEGIN DESIGN DEVELOPMENT For Wednesday, read "How Plastic is a Function of Colonialism" For Wednesday, view "Closing remarks to the Lancet"	ALL-STUDIO LECTURE In-class work, desk crits
6	F Oct 1	DD	COOKE SECTION-PERSPECTIVE/REVIT DEMO, 1-2pm Plans	Cooke lecture for Sustain Health sections In-class work, desk crits
8	M Oct 4	DD	SENSORY DESIGN AND LEARNING FROM DISABILITY, 1-2pm (Wade) Sections	ALL-STUDIO LECTURE In-class work, desk crits
7	W Oct 6	DD	Elevations	In-class work, desk crits
7	F Oct 8	DD	Wall section	In-class work, desk crits
8	M Oct 11	DD	DRAWING SETS, 1-2pm (Wahlberg) Exploded plan oblique For Wednesday, read "Beauty is a method"	ALL-STUDIO LECTURE In-class work, desk crits
8	W Oct 13	DD	Interior elevations	In-class work, desk crits
8	F Oct 15	DD	Render sketches	In-class work, desk crits
9	M Oct 18	DD	Render drafts	In-class work, desk crits
9	W Oct 20	DD	Render drafts, presentation formatting	In-class work, desk crits
9	F Oct 22	DD	DESIGN DEVELOPMENT JURORED REVIEW	DESIGN DEV REVIEW (30% of grade)
10	M Oct 25	Final	BOOKS, COMPETITIONS, PRESENTATION, 1-2 pm ISSUE FINAL	Zook lecture for Sustain Health sections In-class work, desk crits
10	W Oct 27	Final	Revision and presentation prep	In-class work, desk crits
10	F Oct 29	Final	Revision and presentation prep	In-class work, desk crits
11	M Nov 1	Final	Revision and presentation prep	In-class work, desk crits
11	W Nov 3	Final	Revision and presentation prep	In-class work, desk crits
11	F Nov 5	Final	Revision and presentation prep	In-class work, desk crits
12	M Nov 8	Final	Mock review	In-class mock review
12	W Nov 10	Final	Revision and presentation prep	In-class work, desk crits
12	F Nov 12	Final	Revision and presentation prep	In-class work, desk crits
13	M Nov 15	Final	Revision and presentation prep	In-class work, desk crits
13	W Nov 17	Final	Preparation for final review	
13	F Nov 19	Final	FINAL REVIEW	FINAL REVIEW * (40% grade)
14	M Nov 22		Work on Final Book	
14	W Nov 24		NO CLASS: ENJOY YOUR HOLIDAY	
14	F Nov 26		NO CLASS: ENJOY YOUR HOLIDAY	

Week	Date	Phase	In-studio topic	In-studio activity
15	M Nov 29		<i>Final submission of all drawings and book</i>	
15	W Dec 1		NO CLASS: POST FINAL REVIEW	
15	F Dec 3		NO CLASS: STUDY DAY	
16	M Dec 6		NO CLASS: FINAL EXAMS PERIOD	
16	W Dec 8		NO CLASS: FINAL EXAMS PERIOD	
16	R Dec 9		NO CLASS: SEMESTER ENDS	

UNIVERSITY STATEMENTS ON COVID

PREVENTING COVID-19

1. Vaccinations

COVID-19 vaccinations are strongly encouraged by TTU and the CoA. The delta variant is spreading across our city and the country and the best way to protect your health and the health of others is to get vaccinated. The university also has a vaccine incentive program. See here for details:

<https://www.depts.ttu.edu/communications/emergency/coronavirus/vaccination-incentives/>

Please go here to learn more about the safety and efficacy of the COVID-19 vaccine:

<https://www.depts.ttu.edu/communications/emergency/coronavirus/vaccination-incentives/>

Where to receive a COVID-19 vaccine?

Off campus:

- Your local pharmacy
- Your physician
- The City of Lubbock is hosting several clinics: <https://ci.lubbock.tx.us/departments/health-department/covid-19/covid-19-vaccine>
- The City of Lubbock is hosting a pop up clinic Thursday-Sunday, from noon- close, inside the South Plains Mall- location D06 across from Claire's and Journeys Kidz

On campus:

- The Texas Department of Emergency Management (TDEM) will operate a COVID-19 vaccination clinic from August 11-17 at the one-stop-shop back-to-school event at Holden Hall. After August 17th, vaccinations will be available on campus at Student Health Services.
- On August 20th, vaccinations will be available at 18th and Flint from 10.m. to 2 p.m. in a City of Lubbock Mobile Vaccination Bus
- On August 26th, vaccinations will be available at Memorial Circle from 10.m. to 2 p.m. in a City of Lubbock Mobile Vaccination Bus

Students should submit their COVID-19 vaccination record here:

<https://auth.medproctor.com/cas/login?service=https://secure.medproctor.com/casHandler>

2. **Masks**

Face coverings are welcome and encouraged to help mitigate the spread of COVID-19. Masks will be available in all College of Architecture classes.

EXPOSURES AND SYMPTOMATIC COVID-19

Testing

- Students that are exhibiting symptoms of COVID-19 should contact Student Health Services immediately and schedule an appointment for testing. The cost for testing provided through Student Health Services will be billed to insurance for those students that are covered. Insurance pays 100 percent of the testing costs. The self-pay cost is \$40 and can be posted to a student's account through Student Business Services. To make an appointment, please call **806-743-2848**.
- COVID-19 testing is also offered at numerous pharmacies across the City of Lubbock.
- The City offers testing sites found here: <https://ci.lubbock.tx.us/departments/health-department/covid-19/covid-19-testing-location>
- **Where to report a positive diagnosis:** <https://ttucovid19.ttu.edu/User/Consent>

Quarantine and Isolation Procedures

- Fully vaccinated students (including those with medical and religious exemptions) that aren't experiencing symptoms will not be required to quarantine following an exposure to a COVID-19 positive person, including roommates. Following a known exposure, students should monitor for symptoms over the course of 14 days and quarantine if symptoms develop.
- Fully vaccinated students that receive a positive diagnosis for COVID-19 will be required to self-isolate. Students that are vaccinated, including those with medical and religious exceptions, and live in university housing will be provided with a location to complete the self-isolation period. If an off-campus location is necessary, the university will cover the associated housing expenses.
- Unvaccinated or undisclosed students that have been identified as having a known exposure to a COVID-19 positive person will be required to quarantine for a minimum of 7 days or longer depending upon testing. If a student is unvaccinated and can prove a COVID-19 diagnosis and recovery in the last three months, quarantine will not be required.
- Unvaccinated or undisclosed students that receive a positive diagnosis for COVID-19 will be required to self-isolate. The university will offer information regarding off-campus options for unvaccinated students that reside in university housing to complete the self-isolation period but will not cover any associated expenses,

OTHER UNIVERSITY STATEMENTS

ADA STATEMENT:

Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor's office hours. Please note: instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, please contact Student Disability Services in West Hall or call 806-742-2405.

ACADEMIC INTEGRITY STATEMENT:

Academic integrity is taking responsibility for one's own class and/or course work, being individually accountable, and demonstrating intellectual honesty and ethical behavior. Academic integrity is a personal choice to abide by the standards of intellectual honesty and responsibility. Because education is a shared effort to achieve learning through the exchange of ideas, students, faculty, and staff have the collective responsibility to build mutual trust and respect. Ethical behavior and independent thought are essential for the highest level of academic achievement, which then must be measured. Academic achievement includes scholarship, teaching, and learning, all of which are shared endeavors. Grades are a device used to quantify the successful accumulation of knowledge through learning. Adhering to the standards of academic integrity ensures grades are earned honestly. Academic integrity is the foundation upon which students, faculty, and staff build their educational and professional careers. [Texas Tech University ("University") Quality Enhancement Plan, Academic Integrity Task Force, 2010]

RELIGIOUS HOLY DAY STATEMENT:

"Religious holy day" means a holy day observed by a religion whose places of worship are exempt from property taxation under Texas Tax Code §11.20. A student who intends to observe a religious holy day should make that intention known in writing to the instructor prior to the absence. A student who is absent from

classes for the observance of a religious holy day shall be allowed to take an examination or complete an assignment scheduled for that day within a reasonable time after the absence. A student who is excused under section 2 may not be penalized for the absence; however, the instructor may respond appropriately if the student fails to complete the assignment satisfactorily.

DISCRIMINATION, HARASSMENT, AND SEXUAL VIOLENCE STATEMENT:

Texas Tech University is committed to providing and strengthening an educational, working, and living environment where students, faculty, staff, and visitors are free from gender and/or sex discrimination of any kind. Sexual assault, discrimination, harassment, and other [Title IX violations](#) are not tolerated by the University. Report any incidents to the Office for Student Rights & Resolution, (806)-742-SAFE (7233) or file a report online at titleix.ttu.edu/students. Faculty and staff members at TTU are committed to connecting you to resources on campus. Some of these available resources are: TTU Student Counseling Center, 806- 742-3674, <https://www.depts.ttu.edu/scc/> (Provides confidential support on campus.) TTU 24-hour Crisis Helpline, 806-742-5555, (Assists students who are experiencing a mental health or interpersonal violence crisis. If you call the helpline, you will speak with a mental health counselor.) Voice of Hope Lubbock Rape Crisis Center, 806-763-7273, voiceofhopelubbock.org (24-hour hotline that provides support for survivors of sexual violence.) The Risk, Intervention, Safety and Education (RISE) Office, 806-742-2110, <https://www.depts.ttu.edu/rise/> (Provides a range of resources and support options focused on prevention education and student wellness.) Texas Tech Police Department, 806-742- 3931, [http://www.depts.ttu.edu/ttpd/](http://www.depts.ttu.edu/ttupd/) (To report criminal activity that occurs on or near Texas Tech campus.)

CIVILITY IN THE CLASSROOM STATEMENT:

Texas Tech University is a community of faculty, students, and staff that enjoys an expectation of cooperation, professionalism, and civility during the conduct of all forms of university business, including the conduct of student–student and student–faculty interactions in and out of the classroom. Further, the classroom is a setting in which an exchange of ideas and creative thinking should be encouraged and where intellectual growth and development are fostered. Students who disrupt this classroom mission by rude, sarcastic, threatening, abusive or obscene language and/or behavior will be subject to appropriate sanctions according to university policy. Likewise, faculty members are expected to maintain the highest standards of professionalism in all interactions with all constituents of the university (www.depts.ttu.edu/ethics/matadorchallenge/ethicalprinciples.php).

LGBTQIA SUPPORT STATEMENT*:

Office of LGBTQIA, Student Union Building Room 201, www.lgbtqia.ttu.edu, 806.742.5433
Within the Center for Campus Life, the Office serves the Texas Tech community through facilitation and leadership of programming and advocacy efforts. This work is aimed at strengthening the lesbian, gay, bisexual, transgender, queer, intersex, and asexual (LGBTQIA) community and sustaining an inclusive campus that welcomes people of all sexual orientations, gender identities, and gender expressions.