Sustainable Urban Design

Bachelor's Degree

- Bachelor of Science in Sustainable Urban Design (https://www.uta.edu/academics/schools-colleges/cappa/academics/landscape-architecture/bs-sustainability/)

Overview

The four-year Bachelor of Science in Sustainable Urban Design (SUD) is distinctive because in addition to the studio-based disciplines of landscape architecture, planning, and architecture, it has public affairs, bringing together the design and governmental realms necessary to bring any urban design project to fruition. This unique interdisciplinary structure will equip students with the skills to successfully navigate within complex urban design decision-making milieus, underscoring the degree's practical, applicable, problem-solving essence. Infusing the curriculum of this design degree is an emphasis upon sustainability that encompasses environmental, social, and economic considerations.

The degree is a pre-professional program for students who intend to pursue graduate study in landscape architecture: such students will need to subsequently enroll in Path A of CAPPA's Master of Landscape Architecture program or an equivalent at another institution. The B.S. in Sustainable Urban Design does prepare for subsequent master-degree study in landscape architecture, planning, and public affairs.

About Us

The Bachelor of Science in Sustainable Urban Design degree combines a core liberal arts curriculum with a structured sequence of courses in sustainable urban design, landscape architecture, architecture, planning, and public affairs. In addition to these courses, students within the program select 18 hours of upper-level electives from a list that includes courses from many disciplines within the university.

The B.S. in Sustainable Urban Design is a four-year program consisting of 120 hours, in two two-year segments: **Basic Studies** and **Major Studies**. Students are expected to show consistent satisfactory progress toward completion of the degree.

The first two years (**Basic Studies**) is a foundation curriculum taken by all undergraduates at that level in the school. In addition to work in the arts and sciences, Basic Studies includes all required core curriculum for the degree as well as a series of lecture and studio courses which introduce the student to the concepts, history, skills, and vocabulary of design.

Following the two-year Basic Studies sequence, the student completes two years of **Major Studies**, an intensive series of courses and studios on the theory, history, skill, and practice of sustainable urban design.

STUDIO CULTURE POLICY (HTTPS://WWW.UTA.EDU/ACADEMICS/SCHOOLS-COLLEGES/CAPPA/ACADEMICS/STUDIO/)

LAPTOP POLICY (HTTPS://WWW.UTA.EDU/ACADEMICS/SCHOOLS-COLLEGES/CAPPA/ADMISSIONS-OLD/ADVISING/TOOLS-RESOURCES/LAPTOP-COMPUTER-POLICY-FAQ/)

Advising:

BS SUD Academic Advisors

Director for Academic Affairs and Advising**:** Cheryl Donaldson

Admissions Requirements

BS SUD Program Director: Diane Jones Allen, D. Eng, ASLA, PLA

Admission to the Sustainable Urban Design Basic Studies sequence is open to all students meeting the general requirements for entrance to the University.

Prospective Students Contact: James Brown, Academic Recruiter

Major Studies: Entrance Requirements

To declare a major entering the third year in Sustainable Urban Design, a student must meet the following requirements in order to enroll in upper-level UDES, LARC, ARCH, INTD, PLAN and PAPP courses:

- The student will have completed the Sustainable Urban Design Basic Studies sequence with a grade of C or better within each course.
- The student will have completed the core curriculum required for the Sustainable Urban Design degree plan with grades of C or better within all Math and Physics courses. Exceptions regarding courses but not grades will be made only for the following situations:
- If the student has not completed UDES 1301, the student must take it during the first (fall) semester of the third year instead of a prescribed elective.
- If the student has not completed UDES 2303, the student must take it during the second (spring) semester of the third year.
- If a student is transferring into the program from the B.S in Architecture program and has taken MATH 1327, credit will be given for that course, releasing the student from needing to take MATH 1301.
- Have a minimum of a 2.8 GPA both overall at UT Arlington as well as within the Sustainable Urban Design Basic Studies sequence.
- Complete a Major Declaration form available from the Academic Advisor. Any of the above exceptions that have been granted must be noted on the form.

GPA requirements may change based on changes in the curriculum of the program. Qualified students must meet the GPA requirements that are in place at the time they fulfill all other requirements to declare their major.

To declare a major for a fall semester, qualified applicants will submit their request to declare a major in the Academic Advisor's office at the completion of the spring semester of second year, by the program specified deadline.

Official records of coursework taken at other institutions or universities must be submitted to the advising office of the School of Architecture before a student can file a Major Declaration form. It is the student's responsibility to ensure that all coursework is transferred to the Office of Admissions at UT Arlington in a timely manner.

Upon entrance into the major studies programs, students will be required to maintain the minimum 2.8 GPAs both overall at UT Arlington and within the major to remain active and proceed within the program.

Programs Cohort

The undergraduate programs in the College of Architecture, Planning and Public Affairs at the University of Texas at Arlington are organized in a structured cohort format.

What Is a Cohort?

A cohort is a group of students that follows the same set schedule and progresses through a program together. The sequential scheduling of the courses promotes an interactive learning environment and facilitates networking opportunities and career-strengthening relationships.

How Does It Work?

The program consists of a sequence of courses that takes a minimum of eight semesters to complete. The courses are offered in specific semesters (Fall and Spring) that require the students to complete the prior level before proceeding to the next level. If a student gets off-track in the cohort, she/he must wait until the missing course(s) are offered again.

How Are the Courses Sequenced?

The major courses must be taken as follows *(Please note: For every year listed below, 'First Semester' is Fall and 'Second Semester' is Spring)*:

Sustainable Urban Design Students Cohort

How Are the Courses Sequenced?

First Year

Fall Semester	Hours	Spring Semester	Hours	
ARCH 1301		3 LARC 4300		3
UDES 1301		3 UDES 2303		3
UNIV 1131 or 1101		1 UDES 2441		4
		7		**10**

Second Year

Fall Semester	Hours	Spring Semester	Hours	
PLAN 4356		3 UDES 3551		5
UDES 2442		4		
		7		**5**

Third Year

Fall Semester	Hours	Spring Semester	Hours	
LARC 4324		3 PAPP 4307		3
PLAN 4320		3 PLAN 4357		3
UDES 3552		5 UDES 3304		3
		UDES 4551		5
		11		**14**

Fourth Year			
Fall Semester	**Hours**	**Spring Semester**	**Hours**
LARC 4326		3 UDES 4404	4
UDES 4552		5	
	8		**4**

Total Hours: 66

Special Academic Requirements

GPA Requirements: Upon admission to the major, all declared majors must maintain a minimum GPA of 2.8 both within the major and in the cumulative GPA to continue in the upper level program to satisfy requirements for graduation.

Grade Requirements: A grade of C or higher must be earned in each UDES and other CAPPA courses (ARCH, INTD, ESST, LARC, PAPP, PLAN) used for credit toward an undergraduate degree offered by the college. A grade of C or higher must also be earned in all required Math and other Science courses (PHYS, GEOL). Grades of P are not acceptable for classes in which a grade of C or higher is required.

Repetition of Courses: Two attempts to achieve a satisfactory grade are permitted for each required UDES course. Beyond that number of attempts, the student is denied access to the course in question, or to the sequence of courses for which it is requisite. Enrollment in the course for the time sufficient to receive a grade, including the grade W, is considered an attempt.

Transfer of Credit: The extent of credit toward degree requirements for academic work done elsewhere will be determined by the representatives of the appropriate program. Students applying to transfer credits from studio courses taken elsewhere must present examples of that work for evaluation.

Student Projects: The College of Architecture, Planning and Public Affairs reserves the right to retain, copyright, use, exhibit, reproduce, and publish any work submitted for course credit. The student is encouraged to develop a portfolio of all work accomplished in advanced courses for future professional and academic uses.

COMPETENCE IN ORAL PRESENTATIONS

Students obtaining a Bachelor of Science degree in Sustainable Urban Design demonstrate oral proficiency by taking and passing UDES 2441, UDES 2442, UDES 3551, UDES 3552, UDES 4551, and UDES 4552.

COMPETENCE IN COMPUTER USE

Students obtaining a Bachelor of Science degree in Interior Design can demonstrate computer proficiency by:

- Taking and passing ENGL 1301 or ENGL 1302 at UT Arlington in a computer classroom environment.

- Passing the University computer literacy examination

Suggested Course Sequence

First Year			
Fall Semester	**Hours**	**Spring Semester**	**Hours**
UNIV 1131 or 1101		1 ENGL 1302	3
ARCH 1301		3 LARC 4300	3
ENGL 1301		3 MATH 1303	3
MATH 1301		3 UDES 2303	3
POLS 2312		3 UDES 2441	4
UDES 1301		3	
	16		**16**

Second Year			
Fall Semester	**Hours**	**Spring Semester**	**Hours**
GEOL 1330 (or BIOL 1334 or ENVR 1301 or GEOL 1301 or GEOL 1340 or GEOL 1360)[2]		3 HIST 1302	3
GLOBAL 2301		3 PHYS 1351 (or BIOL 1334 or ENVR 1301 or GEOL 1301 or GEOL 1340 or GEOL 1360)[2]	3
HIST 1301		3 POLS 2311	3
PLAN 4356		3 UDES 3551	5
UDES 2442		4 SOCIAL/BEHAVIORAL SCIENCES ELECTIVE	3
	16		**17**

Third Year			
Fall Semester	**Hours**	**Spring Semester**	**Hours**
LARC 4324		3 PAPP 4307	3

PLAN 4320	3	PLAN 4357	3
UDES 3552	5	UDES 3304	3
APPROVED SUD ELECTIVE	3	UDES 4551	5
	14		**14**

Fourth Year			
Fall Semester	**Hours**	**Spring Semester**	**Hours**
LARC 4326		3 UDES 4404	4
UDES 4552	5	APPROVED SUD ELECTIVE	3
APPROVED SUD ELECTIVE	3	APPROVED SUD ELECTIVE	3
APPROVED SUD ELECTIVE	3	APPROVED SUD ELECTIVE	3
	14		**13**

Total Hours: 120

Competence in Oral Presentations

Requirements for a Bachelor of Science Degree in sustainable urban Design

Student Success

UNIV 1131	STUDENT SUCCESS	1
or UNIV 1101	CAREER PREPARATION AND STUDENT SUCCESS	

Sustainable Urban Design

UDES 1301	INTRODUCTION TO PRINCIPLES OF SUSTAINABLE URBAN DESIGN	3
UDES 2303	HISTORY OF URBAN DESIGN, FORM, AND INFRASTRUCTURE	3
UDES 2441	URBAN DIAGRAMMING AND COMMUNICATION I	4
UDES 2442	URBAN DIAGRAMMING AND COMMUNICATION II	4
UDES 3551	URBAN DESIGN STUDIO I: URBAN RESILIENCY	5
UDES 3552	URBAN DESIGN STUDIO II: MOBILITY	5
UDES 4404	URBAN SUSTAINABILITY PROJECT CAPSTONE	4
UDES 4551	URBAN DESIGN STUDIO III: CLIMATE CHANGE	5
UDES 4552	URBAN DESIGN STUDIO IV: ADVANCED SUSTAINABLE URBAN DESIGN	5

Architecture

ARCH 1301	INTRODUCTION TO ARCHITECTURE AND INTERIOR DESIGN	3

Landscape Architecture

LARC 4300	INTRODUCTION TO LANDSCAPE ARCHITECTURE	3
LARC 4324	ENVIRONMENTAL ART AND DATA VISUALIZATION	3
LARC 4326	DESIGN AND HUMAN BEHAVIOR	3

Planning

PLAN 4320	SUSTAINABLE COMMUNITIES	3
PLAN 4356	INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS	3
PLAN 4357	INTERMEDIATE GEOGRAPHIC INFORMATION SYSTEMS	3

Public Affairs

PAPP 4307	URBAN GEOGRAPHY	3

Communications

ENGL 1301	RHETORIC AND COMPOSITION I	3
ENGL 1302	RHETORIC AND COMPOSITION II	3

Political Science

POLS 2311	GOVERNMENT OF THE UNITED STATES	3
POLS 2312	STATE AND LOCAL GOVERNMENT	3

History

HIST 1301	HISTORY OF THE UNITED STATES TO 1865	3
HIST 1302	HISTORY OF THE UNITED STATES, 1865 TO PRESENT	3

Mathematics

MATH 1301	CONTEMPORARY MATHEMATICS	3
MATH 1303	TRIGONOMETRY	3

Life and Physical Science Core Curriculum (choose 2) [2]

BIOL 1334	BIOLOGY FOR NON-SCIENCE MAJORS: LIFE ON EARTH	3
ENVR 1301	INTRODUCTION TO ENVIRONMENTAL SCIENCE	3
GEOL 1330	GLOBAL WARMING	3
GEOL 1301	EARTH SYSTEMS	3
GEOL 1340	WEATHER AND CLIMATE	3
GEOL 1360	GEOLOGIC HAZARDS	3
PHYS 1351	ENERGY AND ENVIRONMENT	3
Language, Philosophy & Culture		
GLOBAL 2301	INTRODUCTION TO GLOBAL ISSUES	3
Social & Behavioral Science Core Curriculum		**3**
Designated courses in social or cultural anthropology, archaeology, social/political/cultural geography, economics, sociology, classical studies, or linguistics (https://catalog.uta.edu/academicregulations/degreerequirements/generalcorerequirements/)		
Prescribed Electives		**18**
Select 6 from the list below.		
PLEASE NOTE: Some of the approved prescribed elective classes have required prerequisites. Students will need to meet prerequisite requirements to take the classes.		
Contact arch.advising@uta.edu for possible permission for CAPPA classes (ARCH, ESST, INTD, LARC, PAPP, and PLAN). [1]		
For classes outside of CAPPA, please contact the appropriate department for possible permission.		
Architecture		
ARCH 3361	ARCHITECTURE AND ENVIRONMENT [1]	3
ARCH 3364	SITE DESIGN [1]	3
ARCH 4308	HISTORY OF URBAN FORM [1]	3
ARCH 4314	HISTORIC PRESERVATION AND RESTORATION [1]	3
ARCH 4332	ENERGY USE AND CONSERVATION IN ARCHITECTURE [1]	3
ARCH 4360	POLITICS AND PRACTICE OF PRESERVATION [1]	3
Landscape Architecture		
LARC 4301	SITE PLANNING AND DEVELOPMENT PROCESSES	3
LARC 4327	REGIONALISM, CREATIVITY, AND DESIGN	3
LARC 4330	PLANT IDENTIFICATION AND ECOLOGY	3
Interior Design		
INTD 4314	HISTORIC PRESERVATION AND RESTORATION [1]	3
Planning		
ESST 2300	INTRODUCTION TO ENVIRONMENTAL & SUSTAINABILITY STUDIES	3
PLAN 3301	THE METROPLEX	3
PLAN 4305	FOUNDATIONS OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY	3
PLAN 4327	GREEN CITIES AND TRANSPORTATION	3
Business		
MANA 1301	BUSINESS IN A GLOBAL ENVIRONMENT	3
Engineering		
CE 2300	INTRODUCTION TO SUSTAINABLE ENGINEERING	3
CM 2331	CONSTRUCTION DOCUMENTS	3
Liberal Arts		
ART 3357	SUSTAINABLE DESIGN	3
DS 3355	UNIVERSAL DESIGN & ACCESSIBILITY IN THE PERFORMING ARTS	3
HIST 3327	CITIES AND SUBURBS IN THE UNITED STATES	3
HIST 3336	ENVIRONMENTAL HISTORY OF THE UNITED STATES	3
HIST 3348	HISTORY OF THE DALLAS-FORT WORTH METROPLEX	3
THEA 3355	UNIVERSAL DESIGN & ACCESSIBILITY IN THE PERFORMING ARTS	3
Science [2]		
BIOL 1334	BIOLOGY FOR NON-SCIENCE MAJORS: LIFE ON EARTH	3
GEOG 3380	THE SPATIAL HUMANITIES	3
GEOL 1301	EARTH SYSTEMS	3

Social Work		
AAST 3353	SOCIAL CLIMATE OF CITIES	3
Total Hours		**114**

At least 36 hours must be 3000/4000 level.

*   Plan requirements/classes are subject to change. As needed, students may be changed into the most current plan. Any changes will not impact the student's graduation timeline.

1   Must be fully declared into the SUD major studies program for enrollment consideration into upper-level ARCH and INTD classes.

2   Courses on elective list taken as Life and Physical Science requirements cannot count for both. Classes can only be used to fulfill one requirement.

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LAPTOP POLICY (HTTPS://WWW.UTA.EDU/ACADEMICS/SCHOOLS-COLLEGES/CAPPA/ADMISSIONS-OLD/ADVISING/TOOLS-RESOURCES/LAPTOP-COMPUTER-POLICY-FAQ/)

COURSES

UDES 1301. INTRODUCTION TO PRINCIPLES OF SUSTAINABLE URBAN DESIGN. 3 Hours.
This course is an introduction to sustainable urban design and its principles through the lenses of the college's four disciplines: landscape architecture, architecture, planning and public affairs. How these disciplines interface with environmental, economic, socio-cultural and design sustainability is the focus of the course, culminating with an exploration of urban ecology.

UDES 2303. HISTORY OF URBAN DESIGN, FORM, AND INFRASTRUCTURE. 3 Hours.
This course examines the history of urban design, form and infrastructure in a variety of cities, providing students with an understanding of how decisions about design, form and infrastructure impact the lives of inhabitants. Prerequisite: Restricted to Sustainable Urban Design-intended students.

UDES 2441. URBAN DIAGRAMMING AND COMMUNICATION I. 4 Hours.
This course establishes a framework for understanding how design is used to create sustainable urban communities. An interdisciplinary course, its focus is upon heightening student awareness of the built environment by investigative sketching and measuring, as well as by digital means. This process of documenting encompasses the human uses of objects and systems that comprise an urban community: buildings, public spaces, landscape, transportation systems, waterways, and other infrastructure. Issues of social and economic equity are introduced, as well as the roles that human interaction and participation play in successful design strategies. Prerequisite: Restricted to Sustainable Urban Design-intended students.

UDES 2442. URBAN DIAGRAMMING AND COMMUNICATION II. 4 Hours.
This course continues developing students' abilities to visually document urban environments in relation to urban ecologies, while beginning to investigate how designs are created to address the range of scales and ecological impact in a city, from the individual site to a neighborhood. This course focuses upon the impact of infrastructure upon a city's human and ecological systems, encompassing the plant and animal species that are part of urban environments. Prerequisite: C or better in UDES 2441. Restricted to Sustainable Urban Design-intended students.

UDES 3304. DIGITAL METHODS IN SUSTAINABLE URBAN DESIGN. 3 Hours.
This course introduces students to the use of digital tools with a focus on their applications in sustainable urban design. The course will cover a wide spectrum of digital art methodologies: image creation and manipulation; simple animation and sound design; static and moving images; digital fabrication outputs; utilizing both pixel and vector-based applications. Prerequisite: C or better in UDES 3552 and LARC 4324. Restricted to Sustainable Urban Design majors. Students must have a minimum cumulative GPA of 2.8 and a minimum major course GPA of 2.8.

UDES 3551. URBAN DESIGN STUDIO I: URBAN RESILIENCY. 5 Hours.
This studio focuses upon the planning and design for disaster recovery and the impact upon infrastructure caused by natural events such as earthquakes, flooding and tornadoes. The studio explores the latest and most reliable recovery strategies for rebuilding and repairing a city's human and ecological systems. Students document streets, waterways, transportation and landscape, examining issues of congestion, pollution, storm water management, and transportation access. Group design projects are based on both the scale of neighborhoods and regions. Prerequisite: C or better in UDES 2442. Restricted to Sustainable Urban Design majors. Students must have a minimum cumulative GPA of 2.8 and a minimum major course GPA of 2.8.

UDES 3552. URBAN DESIGN STUDIO II: MOBILITY. 5 Hours.
This studio examines the major shifts in the organization and spatial allocation of cities that are transforming urban mobility infrastructures, from light rail to pedestrian zones to cyclist lanes. The interface of transportation, public open spaces, buildings and landscape architecture is explored as well as issues of diversity, equity, and inclusion. A series of group design projects at the neighborhood scale continues the refinement of students' graphic and written skills. Prerequisite: C or better in UDES 1301, UDES 3551. Restricted to Sustainable Urban Design majors. Students must have a minimum cumulative GPA of 2.8 and a minimum major course GPA of 2.8.

UDES 4391. CONFERENCE COURSE. 3 Hours.
Independent study guided by an instructor on a regular basis. May be repeated for credit. Prerequisite: Permission of the department.

UDES 4395. TOPICS IN SUSTAINABLE URBAN DESIGN. 3 Hours.
Studio and lecture courses to explore and present selected topics in architecture and design. May be repeated for credit as topics change. Prerequisite: Permission of the department.

UDES 4404. URBAN SUSTAINABILITY PROJECT CAPSTONE. 4 Hours.
In the Capstone Course, students will culminate their learning by completing a sustainability project at the Institute for Sustainability and Global Impact (ISGI) at UT Arlington under the supervision of the Chief Sustainability Officer. Student capstone projects will address pressing issues concerning sustainable urban communities. Students may collaborate and work on a project for an external organization, or work on sustainability programs and projects at UT Arlington. Potential capstone sites will range from local non-profits and government agencies to faculty research projects and private sector initiatives. The Capstone Course is a one-semester project. Prerequisite: C or better in UDES 3552. Restricted to Sustainable Urban Design majors. Students must have a minimum cumulative GPA of 2.8 and a minimum major course GPA of 2.8.

UDES 4551. URBAN DESIGN STUDIO III: CLIMATE CHANGE. 5 Hours.
This studio examines specific climate change issues as selected by the instructor. The studio is a recognition of an evolving set of data with shifting timelines and levels of impact for evaluating the ecological impact of climate change, upon the built environment. One of the areas of study will include sea-level rising and its global impact upon coastal cities. The students will engage in problem solving, using contemporary design and planning strategies on a regional scale. Prerequisite: C or better in UDES 3552. Restricted to Sustainable Urban Design majors. Students must have a minimum cumulative GPA of 2.8 and a minimum major course GPA of 2.8.

UDES 4552. URBAN DESIGN STUDIO IV: ADVANCED SUSTAINABLE URBAN DESIGN. 5 Hours.
This studio examines the roles that smart city technologies play in sustainable urban design. The group design projects in the Urban Resiliency and Urban Mobility studios are reassessed, and the course culminates with individual design projects based upon new locations. Prerequisite: C or better in UDES 4551. Restricted to Sustainable Urban Design majors. Students must have a minimum cumulative GPA of 2.8 and a minimum major course GPA of 2.8.