FLORIDA ATLANTIC UNIVERSITY

NEW COURSE PROPOSAL
Undergraduate Programs

Department Urban and Regional Planning

College Charles E. Schmidt College of Science

*(To obtain a course number, contact **erudolph@fau.edu**)*

UUPC Approval 9/8/25
UFS Approval
SCNS Submittal
Confirmed
Banner Posted
Catalog

Prefix URP

Number 4023

(L = Lab Course; C = Combined Lecture/Lab; add if appropriate)

Lab Code

Type of Course Lecture

Course Title Introduction to Urban Design Technology

Credits *(See Definition of a Credit Hour)* 3

Effective Date *(TERM & YEAR)* Spring 2026

Grading *(Select One Option)*

Regular ◉

Sat/UnSat ○

Course Description *(Syllabus must be attached; see Template and Guidelines)*
This is an introductory level course to fundamentals in AutoCAD 2d drafting and SketchUp 3d modeling techniques. This course requires no prerequisites. This course prepares students for other urban planning and urban design courses.

Prerequisites, with minimum grade* No prerequisites

Corequisites N/A

Registration Controls *(Major, College, Level)*

***Default minimum passing grade is D-.** **Prereqs., Coreqs. & Reg. Controls are enforced for all sections of course**

WAC/Gordon Rule Course

☐ **Yes** ☑ **No**

WAC/Gordon Rule criteria must be indicated in syllabus and approval attached to proposal. See WAC Guidelines.

Intellectual Foundations Program (General Education) Requirement *(Select One Option)*

None

General Education criteria must be indicated in the syllabus and approval attached to the proposal. See Intellectual Foundations Guidelines.

Minimum qualifications to teach course

MLA or Ph.D in Urban Planning, Architecture, Urban Design

Faculty Contact/Email/Phone

Jun Wang junwang@fau.edu

List/Attach comments from departments affected by new course

Approved by	***Date***
Department Chair: DMitzova	08/25/2025
College Curriculum Chair:	8/28/25
College Dean: Evonne Rezler (Aug 28, 2025 15:03:15 EDT)	08/28/25
UUPC Chair: Korey Sorge	9/8/25
Undergraduate Studies Dean: Dan Moeroff	9/8/25
UFS President:	
Provost:	

Email this form and syllabus to mjenning@fau.edu seven business days before the UUPC meeting.

FLORIDA ATLANTIC UNIVERSITY

URP 4023

Introduction to Urban Design Technology

3 Credit(s)

Spring 2026 - 1 Full Term

Instructor Information

Jun Wang
Email: junwang@fau.edu
Office: SO 284
Office Hours: Tuesdays 4:00 - 6:00 pm, or by appointment
Phone: (561) 297-4279

Course Description

This is an introductory-level course to fundamentals in AutoCAD 2d drafting and SketchUp 3d modeling techniques. This course requires no prerequisites. This course prepares students for other urban planning and urban design courses.

Instructional Method

The instructional method will be primarily classroom. The class meets in-person for one 3-hour session per week. Outside work is required.

Required Texts/Materials

No textbooks required. All lecture materials are on the Canvas course page

Course Objectives/Student Learning Outcomes

Upon completion of the course, students should be able to:

1. Master electronic-based technology to manage the planning and design process
2. Communicate effectively by applying appropriate graphic depictions
3. Appraise required planning and design project resources by understanding technical drawings.
4. Understand and master the basic principles of AutoCAD and SketchUp (includes V-Ray)

systems.

Faculty Rights and Responsibilities

Florida Atlantic University respects the rights of instructors to teach and students to learn. Maintenance of these rights requires classroom conditions that do not impede their exercise. To ensure these rights, faculty members have the prerogative to:

• Establish and implement academic standards.

• Establish and enforce reasonable behavior standards in each class.

• Recommend disciplinary action for students whose behavior may be judged as disruptive under the Student Code of Conduct University Regulation 4.007.

Disability Policy

In compliance with the Americans with Disabilities Act Amendments Act (ADAAA), students who require reasonable accommodations due to a disability to properly execute coursework must register with Student Accessibility Services (SAS) and follow all SAS procedures. SAS has offices across three of FAU's campuses – Boca Raton, Davie and Jupiter – however disability services are available for students on all campuses. For more information, please visit the SAS website at www.fau.edu/sas/.

Course Evaluation Method

Assignments: 13 project assignments x 5 points each	65%
Final exam	25%
Class attendance and participation	10%

Code of Academic Integrity

Students at Florida Atlantic University are expected to maintain the highest ethical standards. Academic dishonesty is considered a serious breach of these ethical standards, because it interferes with the university mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Academic dishonesty is also destructive of the university community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see University Regulation 4.001.

Attendance Policy Statement

Students are expected to attend all their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of non-attendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal

obligations, or participation in University-approved activities. Examples of University-approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances, and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absences and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the student's final course grade as a direct result of such absence.

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If you are unable to meet this requirement, prior notice must be given at least one week before the anticipated missed module. Failure to do so may result in missed coursework regardless of the reason. If you miss a week due to an unanticipated event, it is your responsibility to notify the instructor via email in a reasonable amount of time.

A reasonable amount of time to contact the instructor is considered the week after an unanticipated absence.

Religious Accommodation Policy Statement

In accordance with the rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs regarding admissions, registration, class attendance, and the scheduling of examinations and work assignments. University Regulation 2.007, Religious Observances, sets forth this policy for FAU and may be accessed on the FAU website at www.fau.edu/regulations.

Any student who feels aggrieved regarding religious accommodations may present a grievance to the executive director of The Office of Civil Rights and Title IX. Any such grievances will follow Florida Atlantic University's established grievance procedure regarding alleged discrimination.

Time Commitment Per Credit Hour

For traditionally delivered courses, not less than one (1) hour of classroom or direct faculty instruction each week for fifteen (15) weeks per Fall or Spring semester, and a minimum of two (2) hours of out-of-class student work for each credit hour. Equivalent time and effort are required for Summer Semesters, which usually have a shortened timeframe. Fully Online courses, hybrid, shortened, intensive format courses, and other non-traditional modes of delivery will demonstrate equivalent time

and effort.

Course Grading Scale

Letter Grade	Letter Grade
A	94 - 100%
A-	90 - 93%
B+	87 - 89%
B	83 - 86%
B-	80 - 82%
C+	77 - 79%
C	73 - 76%
C-	70 - 72%
D+	67 - 69%
D	63 - 66%
D-	60 - 62%
F	Below 60

Grade Appeal Process

You may request a review of the final course grade when you believe that one of the following conditions apply:

• There was a computational or recording error in the grading.

• The grading process used non-academic criteria.

• There was a gross violation of the instructor's own grading system.

University Regulation 4.002 of the University Regulations contains information on the grade appeals process

Policy on Make-up Tests, Late work, and Incompletes

Quizzes:

Late submissions for quizzes are not accepted. If you miss the quiz deadline, you will automatically receive a score of zero.

Recommendation: Plan ahead—don't miss deadlines.

Discussions and Assignments:

Late submissions for discussions and assignments will be accepted; however, **points will be deducted for each 24 hours past the deadline.**

Assignments submitted late will result in a lower grade.

- Late <1 day, -30% penalty,
- Late 1-6 days, -50% penalty,
- Late by 7 days or more, a flat grade of 30% or the original points.

Late work will only be excused if you have planned with the faculty in advance, otherwise the assignment will be graded based on the policy.

Recommendation: Don't leave assignments until the last minute—start early!

Policy on the Recording of Lectures

Students enrolled in this course may record video or audio of class lectures for their own personal educational use. A class lecture is defined as a formal or methodical oral presentation as part of a university course intended to present information or teach students about a particular subject. Recording class activities other than class lectures, including but not limited to student presentations (whether individually or as part of a group), class discussion (except when incidental to and incorporated within a class lecture), labs, clinical presentations such as patient history, academic exercises involving student participation, test or examination administrations, field trips, and private conversations between students in the class or between a student and the lecturer, is prohibited. Recordings may not be used as a substitute for class participation or class attendance and may not be published or shared without the written consent of the faculty member. Failure to adhere to these requirements may constitute a violation of the University's Student Code of Conduct and/or the Code of Academic Integrity.

Artificial Intelligence Preamble

FAU recognizes the value of generative AI in facilitating learning. However, output generated by artificial intelligence (AI), such as written words, computations, code, artwork, images, music, etc., for example, is drawn from previously published materials and is not your own original work.

FAU students are not permitted to use AI for any course work unless explicitly allowed to do so by the instructor of the class for a specific assignment. **[Policy 12.16 Artificial Intelligence]**

Class policies related to AI use are decided by the individual faculty. Some faculty may permit the use of AI in some assignments but not others, and some faculty may prohibit the use of AI in their course entirely. In the case that an instructor permits the use of AI for some assignments, the assignment instructions will indicate when and how the use of AI is permitted in that specific assignment. It is the student's responsibility to comply with the instructor's expectations for each assignment in each course. When AI is authorized, the student is also responsible and accountable for the content of the work. AI may generate inaccurate, false, or exaggerated information. Users should approach any generated content with skepticism and review any information generated by AI before using generated content as-is.

If you are unclear about whether or not the use of AI is permitted, ask your instructor before starting the assignment.

Failure to comply with the requirements related to the use of AI may constitute a violation of the **Florida Atlantic Code of Academic Integrity, Regulation 4.001.**

Proper Citation: If the use of AI is permitted for a specific assignment, then use of the AI tool must be properly documented and cited. For more information on how to properly cite the use of AI tools, visit **https://fau.edu/ai/citation**

Counseling and Psychological Services (CAPS) Center

Life as a university student can be challenging physically, mentally and emotionally. Students who find stress negatively affecting their ability to achieve academic or personal goals may wish to consider utilizing FAU's Counseling and Psychological Services (CAPS) Center. CAPS provides FAU students a range of services – individual therapy, group therapy, and crisis services, to name a few - offered to help improve and maintain emotional well-being. For more information, go to http://www.fau.edu/counseling/

Student Support Services and Online Resources

- Center for Learning and Student Success (CLASS)
- Counseling and Psychological Services (CAPS)
- FAU Libraries
- Math Learning Center
- Office of Information Technology Helpdesk
- Center for Global Engagement
- Office of Undergraduate Research and Inquiry (OURI)
- Science Learning Center
- Speaking Center
- Student Accessibility Services
- Student Athlete Success Center (SASC)
- Testing and Certification
- Test Preparation
- University Academic Advising Services
- University Center for Excellence in Writing (UCEW)
- Writing Across the Curriculum (WAC)

Course Topical Outline

Available on the Course Module.

Date	Weeks	Topics	Assignments
	Week 1	Introducing syllabus Getting started with AutoCAD - User interface - Open, create and view drawings - Zoom and panning	Project 1: create simple drawing Creating simple drawings.

		- Work with commands - Cartesian workspace - Save your work Basic drawing and editing commands - Lines - Erasing objects - Vertical and horizontal lines - Rectangles - Circles - Undo and redo actions	Using object snap tracking to extrapolate a projected top view. Using modify tools to arrange an office layout
	Week 2	Draw with precision - Polar and ortho tracking - Polar tracking at angles - Entering coordinates and angles - Running object snaps - Object snap overrides - Object snap tracking Modify drawings - Selecting objects for editing - Moving objects - Copying - Rotating objects - Scaling objects - Reference option with the scale tool - Mirroring objects - Editing with grips Drawing templates - Using template files (.dwt) to make new drawings - Exploring what settings and elements are saved with templates	Project 2: trace over one of the given map with precision drawing commands Architectural project: public park Planning project: satellite image
	Week 3	Organize drawings with layers - What are layers? - Layer states - Changing an object's layer - Layer tools Advanced object types - Arcs - Polylines and Splines - Editing polylines - Polygons - Ellipses - Round corner Analyze model and object properties - The properties palette - Quick select - Select similar - Measure geometry tools	Project 3: make changes to a plan of activity center
	Week 4	Advanced editing commands - Trim and extend - Stretch - Fillets and chamfers - Offset and explode - Arrays of objects - Join Work with blocks - What are blocks - Dynamic blocks	Project 4: create complex blocks. Starting a floor plan.

		- Insert block command - Inserting blocks with tool palettes - Migrating blocks and other elements between drawings with design center	
	Week 5	Set up a layout - Using Layouts and Viewports - Scaling Viewports - Model Space vs. Paper Space in Layouts Prepare for printing - Print Concepts - Print Layouts - Print and Plot Settings Text tool - The Multiline Text Tool - The Single Line Text Tool - Editing Text - Text in Model Space vs. Paper Space - The Multileader Tool	Project 5: create a plan for dinning hall and prepare the exported pdf for printing. Print it and bring the physical copy to the class next week
	Week 6	Hatching - The Hatch Command - The Hatch Editor Ribbon Tab - Saving and Applying Hatches with Tool Palettes Add dimensions - Using Dimensioning Tools - Dimensioning in a Layout Tab vs. the Model Tab - Using Dimension Styles - Editing Dimensions Annotation - Annotation tools	Project 6: Dimension and annotate a community plan
	Week 7	Sheet set - Introduction to Sheet Sets - Build a Sheet Set - Sheet Set Views Transferring files - Export to common file types - Migrate to PS or AI or ID - Migrate to Rhino SketchUp and other modeling software Common problems and errors of AutoCAD Smart features in AutoCAD 2025	No assignment
	Week 8	Familiarize with SketchUp - Download and install software - User interface - Plug-ins installing - Online model resources - Navigation Create 2D geometry in 3D environment - Create surfaces from lines - Create surfaces from circles - Generate surfaces from polygons - Generate surfaces from arcs - Demonstrating stickiness of geometry using Sketchup	Project 7: Finish given objects in SketchUp (stairs, walls, roofs)

		3D objects - Copying Pillars - Component Bases - Building the Platform Using Inferences - Arcs and Circles - Array the Bars - Creating the Steps - Building the Slide - Applying Color Core concepts - Edges and Surfaces - Inferences - Inference Challenge - Blue Axis - Push / Pull - Move entities to manipulate geometry - Maintain coplanar geometry	
	Week 9	Accuracy - Accuracy and units - Tape measure tool Connect and generate forms - Lock inferences - Generate forms quickly - Restore/Heal a surface Drawing Tools - Circles - Arcs - Rectangles - Freehand - Offset - Eraser - Selection tools - Grouping tools Create model - Mirroring a model - Creating an array - Applying materials 3D text - Using the text tools - Adding text - Placing text	Project 8: make models of required objects, make arrays of objects by 5 duplicates. Annotate the dimension of the objects with measure tool and 3D texts.
	Week 10	Components Tags (previous layers) Camera Solar and climate system Move tool - Move Tool - Manipulate Geometry - What is Auto-fold? - Copy & Array using Move Import models from 3D warehouse - Alter a model using Sketchup Styles - 3D Warehouse for Pre-Made Furnishings - Benches - Boulders - Play Equipment	Project 9: import required categories of objects from 3DWarehouse. Import satellite image map of FAU Boca campus. Place the imported objects on your chosen location. Import and build topography of FAU Boca campus.

		- Railings - People Import site information, imagery and topography - Position and export models - Sandbox Tools - Grading & Terrain Extensions - Hardscape Grading - Walls & Curbs - Landscape Grading Follow me tool - Follow Me Tool - Follow Me as a Lathe - Follow Me: Practice Exercises	
	Week 11	Base model for planning project - Geo-Locating a Model - Importing & Scaling Reference Sketch - Importing CAD Linework - CAD Cleanup & Making Faces - Paint Group & Layer by Material - Extrude Flat Base Materials - Materials Overview - Materials Sources - Applying Materials - Editing Materials Vegetations - Vegetation Components - Placing / Distributing Vegetation - Skatter Extension Demo - Putting it All Together: Photo-Realistic Rendering Preview	Project 10: Import FAU Boca campus CAD to Sketchup with proper scale and geolocation. Import the satellite image of the campus as based map and scale it to correct size. Choose a location, design a simple rainwater garden on campus. Use imported models. Edit the material to make them look coherent. Apply proper vegetation. On the side of the garden, line the original imported models with original material.
	Week 12	Context modeling - Context Overview & Data Sources - Viewing in Google Earth - Nearby Models - Open Data- CADMapper - Open Data- PlaceMaker - Merging Models Optimization, Collaboration & Revisions - Using Layers & Scenes - Model Clean Up - Organizing Large Models for Collaboration - Making Revisions Overlays and dimensions - Graphic Overlays - Text & Dimensions Output and export - Area Take Offs - Exporting for Distribution Elevation and sections (optional) - Cover Hero Shot - Overall Site Plan - Site Plan Enlargement - Elevations Before _ After - Proposed Floor Plans - Interior Sections	Project 11: Import open data with your preferred location as site of your “new town”. Create mass of buildings as your new town’s design. Create layers of your redesign / design of the model, such as bike lane, roadway, residential building, commercial building, etc. Make a section of the new town, annotate the elevations. This section should give us the most information.

	Week 13	V-ray rendering - Download and install - Cabin: Getting Started and Model Overview - Camera: Scene Setup - Initial Test Render - Adding Ground Plane - Applying V-Ray Materials - Adding Material Maps & Layers - Adding Ground Plane - Applying V-Ray Materials - Adding Material Maps & Layers - V-Ray Fur (Grass) - Proxy Objects: (High Poly-Assets) - Finishing Touches - Final Render & Export - Dusk: Environmental Lighting - Dusk: Artificial Lighting - Dusk: Final Render	Project 12: Finish rendering of any house model. Should have at least five different angles.
	Week 14	Sketchup for Photoshop - Model-Overview - Layers Overview - Scene Setup - Exporting Scenes - Importing to Photoshop - Photoshop Layer Organization - Base Color Overlay - Shadow Adjustments - Linework Adjustments - Entourage Adjustments - Effects: Paper - Effects: Color Wash - Effects: Final Adjustments - Bonus: Ground Level Walk Through Non-linear forms in SketchUp (optional) Enscape overview	Project 13: make your rendering in photoshop with given SketchUp model.
	Week 15		
	Week 16	Final exam	

Title IX Statement

In any case involving allegations of sexual misconduct, you are encouraged to report the matter to the University Title IX Coordinator in the Office of Civil Rights and Title IX (OCR9). If University faculty become aware of an allegation of sexual misconduct, they are expected to report it to OCR9. If a report is made, someone from OCR9 and/or Campus Victim Services will contact you to make you aware of available resources including support services, supportive measures, and the University's grievance procedures. More information, including contact information for OCR9, is available at **https://www.fau.edu/ocr9/title-ix/**. You may also contact Victim Services at **victimservices@fau.edu** or 561-297-0500 (ask to speak to an Advocate) or schedule an appointment with a counselor at Counseling and Psychological Services (CAPS) by calling 561-297-CAPS.

DURP - New Course - Intro to Urban Design Tech

Final Audit Report 2025-08-28

Created:	2025-08-28
By:	Korey Sorge (ksorge@fau.edu)
Status:	Signed
Transaction ID:	CBJCHBCAABAA3a8F0wkuzNm3Gdg-YbRpYNmTZG2VMpSu

"DURP - New Course - Intro to Urban Design Tech" History

Document created by Korey Sorge (ksorge@fau.edu)
2025-08-28 - 12:26:21 PM GMT

Document emailed to Evonne Rezler (erezler@fau.edu) for signature
2025-08-28 - 12:26:26 PM GMT

Email viewed by Evonne Rezler (erezler@fau.edu)
2025-08-28 - 7:05:01 PM GMT

Document e-signed by Evonne Rezler (erezler@fau.edu)
Signature Date: 2025-08-28 - 7:05:19 PM GMT - Time Source: server

Agreement completed.
2025-08-28 - 7:05:19 PM GMT