SAN JOSÉ STATE UNIVERSITY

DEPARTMENT OF URBAN AND REGIONAL PLANNING

URBP 248/148 AND DSGN 248/148

SPATIAL VISUALIZATION TECHNOLOGIES IN URBAN PLANNING

SPRING 2021

Instructor:	Shahzia Sarwar Shazi, M.Arch.
Office Location:	Remote teaching in Spring 2021
Email:	shahzia.shazi@sjsu.edu
Office Hours:	Mondays, 6:00 PM to 7:00 PM (By appointment)
Classroom:	Zoom
Class Days/Time:	Mondays, 7:30 PM to 10:15 PM
Prerequisites:	None
Units:	3

Course Catalog Description:

Lab-based course in digital visualization for urban spatial representation using industry standard software such as Adobe Illustrator, Adobe Photoshop, Adobe InDesign, Trimble Sketch-Up, Google Earth and Microsoft PowerPoint.

Course Description:

Planners rely on visualization tools to communicate complex spatial information to a diverse array of stakeholders. Although charts, graphs, sketches, and maps are important ways of visualizing places, quantitative data, and community member narratives, new digital visualization technologies provide planners and designers with a powerful set of tools to make their message clearer, engaging, and more inclusive.

This course focuses on digital visualization and its application to urban spatial representation and analysis. Through demonstrations and hands-on activities, the course will introduce a variety of methods for representing urban places and their users, simulating changes, presenting visions for the future, and engaging multiple actors in decision-making processes.
Students will identify a conceptual project and will prepare graphics that practicing planners would typically utilize for plans, reports, and presentations. Graphic assignments will be incorporated into a portfolio. The portfolio should mimic a real-life plan that would be presented to the public and used by planners to implement a project.

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Course Learning Objectives:

The course introduces students to spatial visualization and graphic communication software tools that include Illustrator, Photoshop, InDesign, SketchUp and PowerPoint. Incorporation with other software tools including Google Earth will be addressed.

Upon successful completion of the course, students will be able to:

1. Identify project improvement goals, use basic mapping tools (e.g., *Google Earth*) and create presentation slides using ***Microsoft PowerPoint***.
2. Use basic skills in ***Adobe Illustrator*** to create plan view maps of existing conditions and a preferred improvement concept and a map series that illustrates relevant project components.
3. Use basic skills in ***Adobe Photoshop*** to create a photo simulation of a streetscape to conceptually illustrate a conceptual project and color render a site plan.
4. Use basic skills in ***Trimble SketchUp*** to create a 3D model, Animation, Shadow Analysis and 3D cross sections of existing and proposed conditions of the site.
5. Use basic skills in ***Adobe InDesign*** to create a document template as design portfolio and organize content in a logical and easy to understand format.

Course Format:

This is a **synchronous online** course and will combine weekly instructional sessions via **Zoom meetings**. Students are **required** to install the necessary software needed for this course on their Windows or Mac before class meetings and **must be** prepared to use them in class. All the instructions to install the software will be available on Canvas.
This course is formatted to quickly get students familiar with the interface between **Google Earth**, **Microsoft PowerPoint**, **Adobe Illustrator, Adobe Photoshop, Trimble SketchUp** and **Adobe InDesign**. Students are **required** to complete the designated assignments using each of these programs.
This course relies less on reading and more on skill development through individual assignments and independent work on each student's final design portfolio. Students are expected to participate, share information, skills, and ideas in the instructional sessions to initiate a cooperative learning environment. The assignments, lectures, video tutorials and a detailed set of instructions will engage students into the techniques and methods involved in producing graphics that will clearly communicate ideas. Instructions, additional materials and video tutorials will be available on Canvas after each class session.

Students should have **3 copies** (backup files) of each assignment (Thumb drive, Server, Hard Drive, etc.). This will make them at most 1-2 hours behind if something happens to 1 of the copies.

Technology Requirements for this Course:

Students are required to have an electronic device (laptop or desktop) with a camera and built-in microphone. SJSU has a free equipment loan program available for students. Students are responsible for ensuring that they have access to reliable Internet access during class meetings.

The following software are required for this course and students are expected to install all the programs before each class session:

1. Google earth
2. Microsoft PowerPoint
3. Adobe Illustrator
4. Adobe Photoshop
5. Adobe InDesign &
6. Trimble SketchUp

Planning Accreditation Board (PAB) Knowledge Components:

This course partially covers the following PAB Knowledge Components: 1.e., 2.b., 2.c., 2.d., 2.e., and 3.b. A complete list of the PAB Knowledge Components can be found at: http://www.sjsu.edu/urbanplanning/courses/pabknowledge.html.

Required Course Texts:

There are no required course texts. A list of recommended resources for each program will be provided with the appropriate lecture and step by step video tutorials.

Should students wish to learn more, the following is a list of optional resources:

- Illustrator: https://helpx.adobe.com/support/illustrator.html
- Photoshop: https://helpx.adobe.com/support/photoshop.html
- SketchUp: https://www.sketchup.com/learn/resources
  https://www.youtube.com/c/SketchUp/videos
- InDesign: https://helpx.adobe.com/support/indesign.html

Course Workload:

URBP 248/148 is a 3-unit class. Success in this course is based on the expectation that students will spend, for each unit of credit, a minimum of forty-five hours over the length of the course (normally 3 hours per unit per week with 1 of the hours used for lecture) for instruction or preparation/studying or course related activities including but not limited to internships, labs, clinical practical. Other course structures will have equivalent workload expectations as described in the syllabus.

Submission Guidelines:

Students are **required** to upload the necessary files in the correct format for each assignment on Canvas on the **respective due date by the end of the day (11:59 P.M.)** It is recommended that assignments be turned in when they are finished in advance of the due date, especially since larger files take time to upload.
Students are going to lose points if they do not submit the assignment on the due date of each submission date. Late assignments will be accepted at a reduced grade.
Late assignments will receive a deduction of 5 points for each 24-hour period.

All assignments in this course will be evaluated based on the following criteria:
Correct, Complete and On time.

Classroom Protocol:

In Spring 2021, we are in a unique situation because of the pandemic. Given the nature of this course, **attendance at all synchronous sessions is mandatory**. If a student is unable to attend a session in part or full, he/she must inform the instructor as soon as possible and ideally before class. Students are expected to be set up and ready by the time the class begins. **Attendance will be recorded regularly.**

Recording of Zoom Classes:

This course or portions of this course (i.e., lectures, discussions, student presentations) will be recorded for instructional or educational purposes. The recordings will only be shared with students enrolled in the class through Canvas. The recordings will be deleted at the end of the semester. University policy (S12-7) requires consent from all individuals who will appear in a class recording. If you do not wish to be identified in a class recording, please discuss this with the instructors. For example, we may permit an "anonymous" option (e.g., you temporarily turning off identifying information from the Zoom session, including name and picture, prior to recording).

Students are not allowed to record without instructor permission. Also, students are prohibited from recording class activities (including class lectures, office hours, advising sessions, etc.), distributing class recordings, or posting class recordings. Materials created by the instructor for the course (syllabi, lectures and lecture notes, presentations, etc.) are copyrighted by the instructor. University policy (S12-7) is in place to protect the privacy of students in the course. Students who record, distribute, or post these materials will be referred to the Student Conduct and Ethical Development office. Unauthorized recording may violate university and state law. Students must obtain permission in advance to record any course materials. Such permission allows the recordings to be used for a student's private, study purposes only. Students will not be permitted to share any class recordings with someone who isn't enrolled in the class or without permission. The recordings are protected by instructor's copyright.

Zoom Classroom Etiquette

- **Mute Your Microphone:** To help keep background noise to a minimum, make sure you mute your microphone when you are not speaking.
- **Be Mindful of Background Noise and Distractions:** Find a quiet place to "attend" class, to the greatest extent possible. Avoid video setups where people may be walking behind you, people talking/making noise, etc. Avoid activities that could create additional noise, such as shuffling papers, listening to music in the background, etc.
- **Position Your Camera Properly:** Be sure your webcam is in a stable position and focused at eye level. Ideally everyone in class should be able to see your eyes and your whole face. Avoid having backlight from a window or other light source opposite the camera. Limit Your Distractions/Avoid Multitasking: You can make it easier to focus on the meeting by turning off notifications, closing or minimizing running apps, and putting your smartphone away (unless you are using it to access Zoom).
- **Use Appropriate Virtual Backgrounds:** If using a virtual background, it should be appropriate and professional and should NOT suggest or include content that is objectively offensive or demeaning.

University Policies:

Per University Policy S16-9 (http://www.sjsu.edu/senate/docs/S16-9.pdf), relevant university policy concerning all courses, such as student responsibilities, academic integrity, accommodations, dropping and adding, consent for recording of class, etc. and available student services (e.g., learning assistance, counseling, and other resources) are listed on Syllabus Information web page: (https://www.sjsu.edu/curriculum/courses/syllabus-info.php). Make sure to visit this page to review and be aware of these university policies and resources.

Plagiarism and Citing Sources Properly:

Plagiarism is the use of someone else's language, images, data, or ideas without proper attribution. It is a very serious offense both in the university and in your professional work. Plagiarism will lead to grade penalties and a record filed with the Office of Student Conduct and Ethical Development. In severe cases, students may also fail the course or even be expelled from the university. If you are unsure what constitutes plagiarism, it is your responsibility to make sure you clarify the issues before you hand in draft or final work. Learning when to cite a source is an art, not a science. However, here are some common examples of plagiarism that you should be careful to avoid:

- Using a sentence (or even a part of a sentence), that someone else wrote without identifying the language as a quote by putting the text in quote marks and referencing the source.
- Paraphrasing somebody else's theory or idea without referencing the source.
- Using a picture or table from a webpage or book without referencing the source.
- Using data some other person or organization has collected without referencing the source.

Citation style:

It is important to properly cite any references you use in your assignments. The Department of Urban and Regional Planning uses Kate Turabian's *A Manual for Writers of Research Papers, Theses, and Dissertations*, 8th edition (University of Chicago Press, 2013, ISBN 780226816388). Copies are available in the SJSU King Library. Additionally, the book is relatively inexpensive, and you may wish to purchase a copy. Please note that Turabian's book describes two systems for referencing materials: (1) "notes" (footnotes or endnotes), plus a corresponding bibliography, and (2) in-text parenthetical references, plus a corresponding reference list. In this class, students should may use any of the styles, as long as one is used consistently throughout the assignment.

Library Liaison:

The SJSU Library Liaison for the Urban and Regional Planning Department is Peggy Cabrera. If you have questions, you can contact her at peggy.cabrera@sjsu.edu or 408-808-2034.

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COURSE SCHEDULE

Date	Topic	Assignments Due
02/01/2021	Course introduction, Graphic communication in the urban design & planning practice, syllabus & assignments overview. Basic Goal Setting, Editing Google Earth Maps, and Selecting Sites, Basic PowerPoint skills	
02/08/2021	**Microsoft PowerPoint:** Project Area & Analysis PowerPoint Presentation	Assignment 1
02/15/2021	**Adobe Illustrator**- Interface introduction, Panels & Workspaces, Vector basics and Creating Plan View Maps	
02/22/2021	**Adobe Photoshop**- Interface introduction, panels and workspaces, raster image principles, layer management, common file types- Color Rendering techniques	Assignment 2
03/01/2021	**Adobe Photoshop**- Additional Photoshop Features- Tools for Photo Simulation-image manipulation/enhancement, layer mask, clone stamp, layer styles, textures	Assignment 3
03/08/2021	**Trimble SketchUp**- Introduction to workspace and basic tools overview	Assignment 4
03/15/2021	**Trimble SketchUp**- Geo-location, scaling google earth map, 3D modeling tools & techniques	
03/22/2021	**Trimble SketchUp**- 3D modeling tools & techniques continued, modeling flatwork base, materials, 3D warehouse	
03/29/2021	Spring Recess (NO CLASS)	
04/05/2021	**Trimble Sketchup**- Creating Scenes, adding ornamentation the scenes Exporting scenes, Animation	Assignment 5
04/12/2021	**Trimble SketchUp**- Shadow Analysis	Assignment 6
04/19/2021	**Trimble SketchUp**- 3D Cross Sections	Assignment 7
04/26/2021	**Adobe InDesign**-Introduction to InDesign workspace, Document setup/layout, Master & Document pages	Assignment 8
05/03/2021	**Adobe InDesign**-Layout discussion and organization, past portfolio examples	
05/10/2021	**Adobe InDesign**-Additional InDesign Features- Draft submission, presentation & discussion	
05/17/2021	Submission of Final Design Portfolio & Presentation	Assignment 9

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COURSE REQUIREMENTS & ASSIGNMENTS

The grade for the course will be based on the following assignments:

Assignments	Due Dates	Percent of Course Grade	Course Learning Objectives Covered
Assignment 1: Project area & Analysis Students will select a site using Google earth to create and present *Microsoft PowerPoint* slides on the existing site conditions.	02/08/2021	10%	1
Assignment 2: Plan View Maps Students will create plan view maps using *Adobe Illustrator*, illustrating circulation, land use, and project improvements.	02/22/2021	15%	2
Assignment 3: Color Rendering Students will use *Adobe Photoshop* to color render a site plan.	03/01/2021	10%	3
Assignment 4: 2D Photo Simulation Students will enhance an image of existing conditions and create a photo simulation using *Adobe Photoshop* to reflect proposed corridor conditions.	03/08/2021	10%	3
Assignment 5: 3D Model Students will create 3D models of the existing and proposed corridor conditions using *Trimble SketchUp*.	04/05/2021	15%	4
Assignment 6: Scene Animation Students will prepare an animated video using *Trimble SketchUp* of the proposed conditions of both the existing and proposed conditions of the corridor.	04/12/2021	10%	4
Assignment 7: Shadow Analysis Students will prepare an animated video using *Trimble SketchUp* of the shadow analysis of both the existing and proposed conditions of the corridor.	04/19/2021	5%	4
Assignment 8: Cross Sections (3D) Students will create 3D cross sections from their *Trimble SketchUp* model for existing and proposed corridor conditions.	04/26/2021	10%	4
Assignment 9: Design Portfolio Students will create a portfolio using *Adobe InDesign* to display the past assignments in a clear and creative format.	05/17/2021	15%	5

Grading Information:

The course grade consists of 9 assignments. The following table identifies the number of points for each assignment and the respective percentage of the course grade.

Assignment	Assignment Points	Percentage of Course Grade
Assignment 1: Project Area & Analysis	50	10%
Assignment 2: Plan View Maps	75	15%
Assignment 3: Color Rendering	50	10%
Assignment 4: Photo Simulation	75	10%
Assignment 5: 3D Model	75	15%
Assignment 6: Scene Animation	50	10%
Assignment 7: Shadow Analysis	25	5%
Assignment 8: Cross Sections (3D)	25	10%
Assignment 9: Design Portfolio	75	15%
Total	500	100%

Grading Scale: The following grading scale is used to translate final grades to letter grades:

Grade	Percentage	Grade	Percentage
A+	96-100%	C	73-75%
A	93-95%	C-	70-72%
A-	90-92%	D+	66-69%
B+	86-89%	D	63-65%
B	83-85%	D-	60-62%
B-	80-82%	F	59% and below
C+	76-79%		