SAN JOSÉ STATE UNIVERSITY

DEPARTMENT OF URBAN AND REGIONAL PLANNING

URBP 248/148 AND DSGN 248/148, SPATIAL VISUALIZATION TECHNOLOGIES IN URBAN PLANNING
SPRING 2020

Instructor:	Shahzia Sarwar Shazi, M.Arch
Office Location:	WSQ 218 (URBP Student Lounge)
Telephone:	Email preferred
Email:	shahzia.shazi@sjsu.edu
Office Hours:	Mondays 6:30 PM to 7:30 PM or By appointment
Class Days/Time:	Mondays 7:30 PM to 10:15 PM
Classroom:	WSQ 208
Prerequisites:	None
Units:	3

Course Catalog Description

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

Course Description and Course Learning Objectives

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 document template. The document template should mimic a real-life plan/report that would be presented to the public and used by planners to implement a project.

The course introduces students to spatial visualization and graphic communication software tools that include Illustrator, InDesign, Photoshop, AutoCAD, 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 PowerPoint.
2. Use basic Illustrator skills 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 Photoshop skills to create a photo simulation of a streetscape to conceptually illustrate a conceptual project and color render an urban streetscape.
4. Use basic SketchUp skills to create a 3D cross sections of existing conditions and a preferred improvement concept and a 3D model of a streetscape corridor improvement project.
5. Use basic AutoCAD 2D drafting skills to create 2D line drawings of the selected site.
6. Use basic InDesign skills to create a poster and document template and organize content in a logical and easy to understand format.

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. Additionally, students will be asked to document any useful resources they found during the term. A consolidated list of collected resources will be distributed to students for future reference.

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

- AutoCAD: https://thesourcecad.com/autocad-tutorials/

- InDesign: https://helpx.adobe.com/support/indesign.html

URBP 248/148 AND DSGN 248/148 SPATIAL VISUALIZATION

TECHNOLOGIES IN URBAN PLANNING
SPRING 2020

COURSE SCHEDULE

Subject to change with fair notice in class or by email.

Date	Topic	Assignments Due
January 27	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	
February 3	Introduction to Adobe Illustrator- Interface introduction, Panels & Workspaces, Vector basics and Creating Plan View Maps	Assignment 1
February 10	Introduction to Adobe Photoshop- Interface introduction, panels and workspaces, raster image principles, layer management, image manipulation/enhancement, common file types and file management	Assignment 2
February 17	Additional Photoshop Features- Color Rendering techniques	Assignment 3
February 24	Introduction to SketchUp- Introduction to workspace and basic tools overview, 3D Modeling	
March 2	Additional Sketchup Features- Creating Scenes/Exporting as JPEGs, Importing/exporting images, paint buckets/materials, google warehouse, adding scenes and visualization techniques	Assignment 4
March 9	Additional Sketchup Modeling and Animation	
March 16	Additional Sketchup Modeling and 3D Cross sections	Assignment 5
March 23	Introduction to 2D Drafting techniques using AutoCAD	
March 30	Spring Recess (No Class)	
April 6	Additional AutoCAD Features	Assignment 6
April 13	Introduction to Adobe InDesign	
April 20	Additional InDesign Features- Document layout/Formatting	Assignment 7
April 27	Compilation of all the past assignments/Composition and Layout of Design Portfolio	Assignment 8
May 4	Progress of Design Portfolio	
May 11	Review and Submission of Final Design Portfolio	Assignment 9

Course Requirements and Assignments

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

Assignments	Due Dates	Percent of Course Grade	Course Learning Objectives Covered
Assignment 1: Goals & Project area Students will select sites using Google earth to create *PowerPoint* slides on the existing site conditions.	February 3	10%	1
Assignment 2: Plan View Maps Students will create a series of plan view maps using *Adobe Illustrator*, illustrating circulation, land use, and project improvements.	February 10	15%	2
Assignment 3: 2D Photo Simulation Students will enhance an image of existing conditions and create a photo simulation using *Adobe Photoshop* to reflect proposed corridor conditions.	February 17	10%	3
Assignment 4: Color Rendering Students will use *Adobe Photoshop* to color render an urban streetscape.	March 2	10%	3
Assignment 5: 3D Model Students will create 3D models of the existing and proposed corridor conditions using *SketchUp*.	March 16	15%	4
Assignment 6: Animation and Shadow Analysis Students will prepare an animated video using *Sketchup* of the proposed conditions of the corridor along with a shadow analysis of both the existing and proposed conditions of the corridor.	April 6	5%	4
Assignment 7: Cross Sections (3D) Students will create 3D cross sections from their *SketchUp* model for existing and proposed corridor conditions.	April 20	10%	4
Assignment 8: 2D Drafting Students will use *AutoCAD* to 2D draft the existing and proposed sites.	April 27	10%	5
Assignment 9: Design Portfolio Students will create a portfolio using *Adobe InDesign* to display the past assignments in a clear and creative format.	May 11	15%	6

Grading Information

The course grade consists of 10 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: Goals and Project Area	50	10%
Assignment 2: Plan View Maps	75	15%
Assignment 3: 2D Photo Simulation	50	10%
Assignment 4: Color Rendering	50	10%
Assignment 5: 3D Model	75	15%
Assignment 6: Animation and Shadow Analysis	25	5%
Assignment 7: Cross Sections (3D)	50	10%
Assignment 8: 2D Drafting	50	10%
Assignment 9: Design Portfolio	75	15%
Total	500	100%

If a student named "Joe" obtains 45 points on Assignment 1, 50 points on Assignment 2, 72.5 points on Assignment 3, 75 on Assignment 4, 48 points on Assignment 5, 73 points on Assignment 6, 22 points on Assignment 7, 50 points on Assignment 8, and 48 points on Assignment 9, his final letter grade can be calculated using the following steps:

a) Calculate the weighted score for each assignment.
Assignment 1: 45/50 times 100 times 0.10 = 9
Assignment 2: 50/50 times 100 times 0.10 = 10
Assignment 3: 72.5/75 times 100 times 0.15 = 14.5
Assignment 4: 70/75 times 100 times 0.15 = 14
Assignment 5: 46.5/50 times 100 times 0.10 = 9.3
Assignment 6: 73/75 times 100 times 0.15 = 14.6
Assignment 7: 22/25 times 100 times 0.05 = 4.4
Assignment 8: 46.5/50 times 100 times 0.10 = 9.3
Assignment 9: 48/50 times 100 times 0.10 = 9.6

b) Add the score for each assignment to arrive at the final score for the course. Round the final score to the nearest whole number and refer to the grading scheme.
Final score = 9 + 10 + 14.5 + 14 + 9.3 + 14.6 + 4.4 + 9.3 + 9.6 = 94.7
Final score rounded to nearest whole number = 95

c) Grading scheme: A+ (97 and above); A (93 to 96); A- (90 to 92); B+ (87 to 89); B (84 to 86); B- (81 to 83); C+ (78 to 80); C (75 to 77); C- (72 to 74); D+ (69 to 71); D (66 to 68); D- (63 to 65); F (below 63)
d) Use the conversion scheme provided in step "c" to arrive at the letter grade.

The score of 94 for "Joe" equals a letter grade of "A."

Other Grading and Assignment Issues

Assignments are due on the respective due date by 10:00 AM, unless otherwise noted. Assignments will be accepted through Canvas. 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. Late assignments will be accepted at a reduced grade. Late assignments will receive a deduction of 5 points for each 24-hour period. For example, if the assignment is due on Saturday at 10:00 AM and it is turned in on Monday at 10:01 AM, there will be a 15 points penalty.

Course Workload

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.

Classroom Protocol

Given the nature of this course, **attendance at all 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.

A break will be provided between lessons. Students who need to leave the classroom to use the restroom are encouraged to do so during open lab instead of during lectures and demonstrations.

Cell phones are prohibited in the classroom. Computers are to be used for the purposes of completing assignments and associated research. Other use of the computers may be permitted outside of class hours and during breaks, as long as the use does not violate any university policy.

University Policies

Per University Policy S16-9, university-wide policy information relevant to all courses, such as academic integrity, accommodations, etc. will be available on Office of Graduate and Undergraduate Programs' Syllabus Information web page at http://www.sjsu.edu/gup/syllabusinfo/"

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. In essence, plagiarism is both theft and lying: you have stolen someone else's ideas, and then lied by implying that they are your own.

> **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 <u>before</u> you hand in draft or final work.**

Learning when to cite a source and when not to 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 reference the source.

• Using data some other person or organization has collected without referencing the source.

The University of Indiana has developed a very helpful website with concrete examples about proper paraphrasing and quotation. See in particular the following pages:
• Overview of plagiarism at www.indiana.edu/~istd/overview.html

• Examples of plagiarism at www.indiana.edu/~istd/examples.html

• Plagiarism quiz at www.indiana.edu/~istd/test.html

If you still have questions, feel free to talk to me personally. There is nothing wrong with asking for help, whereas even unintentional plagiarism is a serious offense.

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.