FACULTY OF
ARCHITECTURE
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MIM-SBP-PEM

tes112e

VISUAL COMMUNICATION I:
VISUALIZATION & TECHNICAL DRAWING

Section 3

2022-2023 fall
Friday 08:30 – 12:30

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Syllabus

VISUAL COMMUNICATION I: VISUALIZATION AND TECHNICAL DRAWING

COURSE OBJECTIVE and DESCRIPTION

TES112E Visual Communication 1 course aims to increase the interaction and coordination between the mind and hand. It will be the vital tool to develop and improve your design ideas. Communicating is via sketches, perspectives, use of images, renderings, texts; communicating will work for two partners: allows you to see; and for other people to whom you want to describe your ideas.

The studio will concentrate on introducing you to the media and give you critical experience on how to use it effectively: you will sketch to externalize ideas, draw to map and represent, and then produce and re-produce these productions into eloquent graphics. This semester will provide a solid, heart-felt, and hand-felt foundation of various techniques and approaches to both visualization and representation, of ideas, processes, and relationships. Hence, the course forms a basis for your future development as a planner and designer.

Besides visualization and communication of ideas, two major issues to be covered are “graphics” and “technical drawing”. You will be introduced to the fundamental concepts of graphics – the issues related to the performance of the various elements of a visual or artboard. Technical Drawing on the other hand will allow you to develop your skills in 3D thinking, handling an object in its physicality and in Cartesian space, and effectively mapping formal properties. This will be a fundamental basis for you to understand and communicating – in an architectural manner – various archetypal forms in context and in scale.

COURSE CONTENT

The course will run independent, but also closely linked with the Project-I studio. Various graphic and visual exercises will address render common themes, and feed each other; however part of the topics will be independent. The first part of the semester will concentrate on basics of graphical design, sketching, collage and a brief introduction to technical drawing basics. In the second part, in accordance with your project modules, we will focus on advanced technical drawing techniques and data visualization tools. The course consists of **6 modules** in total:

MODULE 1 | WEEK 1 (Collage)

Collage techniques, abstraction through collage, ability to use recyclable materials and application of composition principles.

MODULE 2 | WEEKS 2-3 (Basics of Graphics)

Quick and effective sketching techniques, use of pencil and sketch paper, geometric etudes and search for forms, expression of the transformation process from solid shapes to objects, use of typography in sketching and poster design.

MODULE 3 | WEEKS 4-5-6 (Basics of Technical Drawing)

Teaching technical drawing tools, use of T-square and triangles, drawing the top-front-side views and cross-section of objects/solid shapes by orthographic projection, axonometric projection methods, use of isometric-oblique and exploded perspective.

MODULE 4 | WEEKS 7, 11 (Externalization and Visualization Techniques)

Diagramming, concept diagrams, Info-graphics, flowcharts, time lapse and sequence analyses; embodying an idea, information, process and/or design with several visualization and externalization tools.

MODULE 5 | WEEK 9-10 (Graphic Design Basics and Digital Media)

Communicating issues and ideas, understanding digital visualization techniques and tools, layering & super-positioning techniques, use of transparency in collage, rethinking and re-editing in poster design.

MODULE 6 | WEEKS 12-15 (Advanced Tech. Drawing + Graphic Design)

Disciplinary modes of technical drawing, representation of archetypes, scales & abstraction, notation & documentation projects and layering of ideas with board design, poster design and presentation tools.

Additional to the modules, there will be a general technical drawing exam across all Sections in the 13th week of the course calendar. It will comprise 10% of the course grade.

COURSE LEARNING OUTCOMES

Students who complete the course satisfactorily will be able to:

1) Understand the basic elements of design, theories and systems of color,
2) Use colored, fast drawing techniques; prepare effective presentations,
3) Express ideas, scenarios, concepts graphically,
4) Use 2D and 3D rendering technologies and tool,
5) Create freehand sketching and lettering,
6) Learn the concept of scale, give dimensions on the drawings,
7) Learn the principles of projection, sketch the orthographic views of structural and contextual elements.
8) Apply necessary markings and symbols on drawings.

WEEKLY PROGRAM

Week / Date	Subject	Keywords & Basic Principles	Learning Outcomes
1 23.Sep	**COLLAGE** **Assignment &Pin-Up:** Analog abstraction with collage techniques	*Collage, composition, abstraction, materials*	1,3,4
2 30.Sep	**BASICS OF GRAPHICS (Sketch Marathon)** **Seminar:** Drawing Tools & Sketching **Assignment & Pin-Up:** Freehand drawing; understanding forms, line attributes and objects; comprehending sharp geometric and elliptic forms, segmentation, addition, subtraction and layering	*Sketch, form, geometry, line, contour, section, transformation*	1,2,3,5
3 7.Oct	**BASICS OF GRAPHICS (Sketch Marathon)** **Seminar:** Typography & Presentation **Assignment & Pin-Up:** Typography exercises, generating a thematic poster with sketches, texts and graphic tools (logos, diagrams, etc.)	*Text, typography, logo, poster, graphic design basics, composition*	1,2,3,5,8
4 14.Oct	**BASICS OF TECHNICAL DRAWING** **Seminar:** (1) Technical Drawing Tools, (2) Orthographic Projection **Assignment:** Technical representations: plan-section and views	*2D orthogonal projection, axonometric perspective, plan oblique*	6,7
5 21.Oct	**BASICS OF TECHNICAL DRAWING** **Seminar:** Axonometric/Oblique Projection **Assignment:** Technical representations: Axonometric perspective, plan oblique, exploded perspective	*2D orthogonal projection, axonometric perspective, plan oblique*	6,7

6 28.Oct	**BASICS OF TECHNICAL DRAWING** **Assignment:** Technical representations: Orthographic and Axonometric projection, plan oblique, exploded perspective	*2D orthogonal projection, axonometric perspective, plan oblique*	6,7
7 4.Nov	**EXTERNALIZATION and VISUALIZATION TECHNIQUES** **Seminar:** Diagramming, concept diagrams, Info-graphics, flowcharts **Assignment:** Generating a thematic diagram / info-graphics	*Externalization, data visualization, graphic design*	2,3,4
8 11.Nov	Fall Break	-	-
9 18.Nov	**GRAPHIC DESIGN BASICS & DIGITAL MEDIA** **Seminar:** Digital Visualization Techniques: Collage and Digital Media Tools **Assignment:** Graphic representation with layers, poster design	*Digital layering, superposition, Graphic design, poster design, composition*	1,2,3,4,5,8
10 25.Nov	**GRAPHIC DESIGN BASICS & DIGITAL MEDIA** **Seminar:** Digital Visualization Techniques: Collage and Digital Media Tools **Assignment:** Graphic representation with layers, poster design	*Digital layering, superposition, Graphic design, poster design, composition*	1,2,3,4,5,8
11 2.Dec	**EXTERNALIZATION and VISUALIZATION TECHNIQUES** **Seminar:** Time lapse and sequence analysis **Assignment:** Visualization of a living creature's movements	*Externalization, data visualization, graphic design*	2,3,4
12 9.Dec	**TECHNICAL DRAWING** **Assignment:** Orthogonal projection, plan-section & views, axonometric perspective, plan oblique, 3d representations	*2D orthogonal projection, axonometric perspective, plan oblique*	4,6,7,8
13 16.Dec	**Technical Drawing Exam**	-	-
14 23.Dec	**TECHNICAL DRAWING** **Assignment:** Orthogonal projection, plan-section & views, axonometric perspective, plan oblique, 3d representations	*2D orthogonal projection, axonometric perspective, plan oblique*	4,6,7,8
15 30.Dec	**FINAL PRESENTATION** **Assignment:** Graphic design and poster techniques, System details, plan-section-views, axonometric persp. representations	*Graphic design, composition, orthogonal / axonometric projection*	1,2,3,4, 5,6,7,8

COURSE CONDUCT and SUBMISSIONS

The course will be held **in class** during the hours announced in the weekly program [Friday, 08.30–12.30] and in accordance with **any guidelines and precautions of the Covid-19 pandemic if necessary**. Course instructors and students will meet in the allocated studio(s) unless specified otherwise by the course instructors. Each student will have a designated work area during the course hours. General assemblies or presentations related to the course may be held in the studio using a virtual platform or in one of the conference rooms in Taşkışla.

It is of utmost importance that students keep their working areas clean while in the studio and speckless at the end of the course. **The studio space will be used by another class after ours so it is both courteous and safe to evacuate on time (no later than 12.30) with all belongings and trash.** Please know and comply with TES Studio Principles.
(https://tes.mim.itu.edu.tr/studio-principles/)

CLASS HOURS and ATTENDANCE

It is important that students follow the studio. This means being on time

and actively participating in the activities held during the course hours under the direction of the studio instructors. There will be a variety of interactive formats so timeliness is essential for an efficient planning and individuals' maximum benefit from peers and instructors. Students are also strongly encouraged to use supporting digital platforms to share multimodal objects and information while interacting with their instructors and peers during studio discussions.

All work is to be produced in accordance with the media, material and format requirements set forth by the instructors in the class or in the announcements made through **Ninova** or other designated platforms. All participants are expected to adhere to the codes of ethical conduct.
https://odek.itu.edu.tr/en/code-of-honor/ethics-in-university-life

COURSE TECHNOLOGY

Digital platforms will be used during and outside of class hours to communicate, conduct research, produce and share work. **Ninova (Section's common CRN)** will be used for announcements, access to live or recorded Zoom sessions, and digital submissions. Additionally, instructors may designate other platforms for announcements and sharing work. We also plan to use supporting platforms such as Google Drive, Miro, and Google Jamboard to share work within the class community and collaborate. It is highly advised that each **student has a laptop computer with the necessary equipment/hardware**. Students are advised to use a computer with access to WiFi, a camera, basic word and picture editing software, and sound features.

DISCUSSIONS and PINUPS

Student works are commonly put under the spotlight for discussion. These discussions serve the purpose of articulating the assessment criteria and conveying suggestions for students to develop their work. In these open discussions, students are expected to develop critical perspectives and proactively voice them in the course.

EXHIBITIONS

A selection of student projects will be exhibited digitally both during and at the end of the semester on suitable platforms.

ANNOUNCEMENTS

At each class, you will be informed about the studio and homework exercises, the materials and media to be used for these exercises, and requirements to be fulfilled before the upcoming class (such as material to read, tutorials to watch, and etc.) either verbally or via handouts. **All announcements will be made on both Ninova (Section CRN) and Section's Facebook Group.**

Briefs of upcoming weeks' topics and exercises will be given out by group tutors as hand-outs at the end of the previous week. These briefs will explain details and expectations for the following weeks exercise, the related home works, various readings and YouTube channels that are expected to be reviewed by the students before coming to class next week. The brief will also entail information on the necessary preparations and material for the upcoming week. Following the briefs, critical lectures will cover theoretical and technical aspects; examples of graphic work related to all fields of study will be presented in order to enrich the students' visual culture, and to guide them on their personal research at their own times.

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EVALUATION

Attendance requirement is **80%** for both: participation to the courses and submission of assignments during the semester. Students who do not meet these conditions will get **VF** and cannot make final submission.
* Note that the midterm grade will be identified based on the number of products which you have submitted for the studio exercise at the end of the class and the homeworks given through the semester.
* You'll have chance to revise all of your products for final submission. Thus, the final dossier grade will have a distinct effect (%30) on your overall grade.

Visual Communication I Grade Assessment	Contribution
Submissions during the term (Midterm grade)	%60
Final Submission (Final dossier grade)	%30
Technical Drawing Exam	%10

RECOMMENDED READINGS

Zell, M., The Architectural Drawing Course - Understand the principles and master the practices, Thames & Hudson, 2008, London.

Ching, F.D.K., Design Drawing, John Wiley & Sons, 1997.

Fraser, I., Henmi, R., Envisioning Architecture: An Analysis of Drawing, John Wiley & Sons, 1994.

Berger, J., Görme Biçimleri, Metis Yayınları, 1995.

Gruzdys, S., Drawing: The Creative Link, *Architectural Record,* vol. 190, no.1, pp.64-67, January 2002.

Cook, P., Drawing: The Motive Force of Architecture, Architectural Design Primer, John Wiley & Sons, 2014.

Allen, S., Practice - Architecture, Technique and Representation: Revised and Expanded Edition 2nd Edition, Routledge, 2009.

Lasseau, P., Freehand Sketching: An Introduction, W.W. Norton and Co., New York, 2004.

Ching, F.D.K., Architectural Graphics, Architectural Press, 1984.

Davis, D.A., Walker, T.D., Plan Graphics, Wiley, 2000.

Şahinler, O., Kızıl, F., Mimarlık'ta Teknik Resim, YEM, 2004

Architectural Graphic Standards, 10th edition, John Wiley & Sons, 2007.

Giesecke, F.E., et.al.,Engineering Graphics, MacMillan Publ, 2004.

Earle, J.H., Engineering Design Graphics, Addison-Wesley Publ., 1994.

Bertoline, G.R., et.al. Technical Graphics Communication,McGraw-Hill, 2003

Henry, Kevin. *Drawing for product designers*. Laurence King, 2012.

Eissen, K., and R. Steur. "Sketching: the basics (ed. 2012) Amsterdam." 2011.

Krisztian, G.,Schlempp-Ülker,N., Visualizing ideas: from scribbles to storyboards, Thames & Hudson, London, 2006.

Pile, J., Judith, G., History of Interior Design, 4th Edition, Wiley, 2013.

Taylor, M., (Ed.), Preston, P., (Ed.), Intimus: Interior Design Theory Reader, Academy Press, 2006.

Ching, F.D.K., Interior Design Illustrated, John Wiley & Sons, 2012.

Brooker, G. , Stone, S., İç Mimarlıkta: Bağlam + Çevre, Literatür Yayıncılık, İstanbul, 2012.

Brooker, G. , Stone, S., İç Mimarlıkta: Biçim + Yapı, Literatür Yayıncılık, İstanbul, 2012.

Brooker, G. , Stone, S., İç Mimarlıkta Yapı Bileşenleri ve Nesneler, Literatür Yayıncılık, İstanbul, 2012.

Spankie, R., İç Mimarlıkta: İç Mekan Çizimi ve Sunumu, Literatür Yayıncılık, İstanbul, 2012.

Gagg, R., İç Mimarlıkta; Doku + Malzeme, , Literatür Yayıncılık, İstanbul, 2013.

House N., Coles, J., The Fundamentals of Interior Architecture, AVA Publishing, 2007.

Sully, A., Interior Design: Theory and Process, A&C Black, 2012.

Tangaz, T., Interior Design Course: Principles, Practices&Techniques for the Aspiring Designer, Barron's Educational Series, 2006.