

PSY 310 – 2024 Spring

Visual Cognition

Instructor
Email
Office Hours

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By appointment (email me before)

Class Schedule

Wednesday	Class 2:40 pm - 4:30 pm W	1097
Thursday	Class 10:40 am - 11:30 am R	1075

TA

Selen Gönül <sgonul@sabanciuniv.edu>

Course Description

Vision is central to our daily interactions with the world. It is the most salient sense modality, dominating our perception. Visual thinking plays a crucial role in several tasks such as object recognition, reading emotions from facial expressions, spatial orientation, and wayfinding, creative problem solving, planning for the future, understanding scientific visualizations or visual art.

Topics to be discussed include theoretical research on cognitive and neural processes underlying visual cognition as well as applied research on visual thinking and individual differences in visual processing styles. This course will provide a venue for under/graduate students to discuss research on visual cognition.

We will explore questions such as: How do we encode, use, and interpret visual information? How do we imagine objects and scenes? Do we remember what we see? How do we perceive visual art? Why some people are better or worse in visual thinking?

- After the course, the student should:
 - have a deeper understanding of cognitive science methods
 - have an improved ability in evaluating scientific studies of visual cognition
 - have the ability to apply and integrate this knowledge in a research project
 - have the ability to communicate the project results

Course Structure

Approach

The course will combine a variety of instructional approaches. It will require reading of research papers, making presentations, active participation in class discussions, research-related activities, and exam.

Structure

During the first portion of this course, we will read, present, and discuss the literature. On W classes, we will have presentations that showcase exemplary papers relevant to our weekly topics. These presentations will be discussed within the broader framework of the specific theme. On R classes, our focus will be on a single paper, delving more deeply into its content and implications. Before R classes, all students will be required to thoroughly read the selected paper and formulate discussion questions. The discussion will be led by a designated moderator who will guide the discussion of the paper and foster its critical analysis.

During the first portion of this course, we will work on research projects relevant to the topics discussed in the first portion of the course. On W classes, students will work in teams on their projects and progress presentations. On R classes, they will present their work in a format of short progress presentations and will receive feedback from their peers and course instructor. Each week students will focus on different task as such topic selection and literature review, research planning, experiment preparation, data collection, and data analyses. In the last week students will present their results.

Resources

There is no textbook for this course – we will be mostly reading original research reports. All readings will be uploaded weekly on SUCourse under Resources.

Workload and Evaluation

30% Presenting papers in the class and/or leading the discussion.

Students will prepare PowerPoint presentations and present papers from different class topics. GR students will have 15 min long presentations, UG students will have 10 min long presentations. GR students must lead a discussion, UG have a choice: leading a discussion OR presenting an additional paper. So,

GR students will present 2 papers and lead 1 discussion (10% each).

UG students will present 2 papers OR they present 1 paper and lead 1 discussion (15% each).

10% Preparing questions for class discussions.

Students will prepare discussion questions based on the *weekly* readings.

10% Attendance and participation in class discussions.

Attendance and engagement in class discussions is crucial for this course.

20% Exam

The exam will include open-ended questions about literature discussed in the classes.

30% Research project

Grading for weeks 11-15 will be based on the team performance (10% in total, each contributing team member gets 2% for weekly progress presentations). Grading for least week will be based on the final presentation (pass-fail), and 20% for individual project assessment.

Research Participation (up to 5 bonus points = 10 Sona research points):

Students can optionally serve as participants in research that is run by Sabanci University researchers. By participating in research, you can get extra points. For this course, you will be able to earn up to 5 bonus points (1 research point equals ~ 30 minutes of research participation). 10 sona research points (10 RPs) will be converted to 5 bonus points added to your overall total at the end of the semester. More information on the available research projects will be provided during the semester. You will be able to sign up for the experiments and get your research participation points through the online Sona system at <http://sabanciuniv.sona-systems.com>. Please, carefully read the Guide for Students: Sabanci University Experiment Credits System (Sona).

Grading Scale

Conversion to letter grades

A	95-100
A-	90-94
B+	85-89
B	80-84
B-	75-79
C+	70-74
C	65-69
C-	61-64
D+	58-60
D	55-57
F	0-54

Academic Integrity

It is the student's responsibility to be familiar with Sabanci University's policies on academic integrity, cheating and plagiarism. The assignments and exams you complete for this course should be the results of your own work and reflect your own understanding of the material. Scholastic dishonesty of any kind will not be tolerated.

Course Schedule (tentative)

Week 1 (15 February 2024)	Course Introduction
Week 2 (21 and 22 February)	Curvature preference
Week 3 (28 and 29 February)	Cross-modal correspondences
Week 4 (6 and 7 March)	Art perception
Week 5 (13 and 14 March)	Art creation
Week 6 (20 and 21 March)	Visual False Memory
Week 7 (27 and 28 March)	Visual Imagery and Memory
Week 8 (3 and 4 April)	Visual Imagery, Memory, and Perception
Week 9 (10 and 11 April)	<i>SPRING BREAK</i>
Week 10 (17 and 18 April)	Midterm Exam
Week 11 (24 and 25 April)	Topic selection & literature review
Week 12 (1 and 2 May)	Research proposals
Week 13 (8 and 9 May)	Research preparation
Week 14 (15 and 16 May)	Research data collection
Week 15 (22 and 23 May)	Research data analysis
Week 16 (29 May)	Presentations (group) + Project assesemnt (ind)

Note: Course content, requirements and policies are subject to change at the discretion of the instructor. Changes will be posted on SU COURSE.