PSYC 3040 **Fall 2026**

Sensation and Perception
TR 2:00 – 3:15 p.m.
Location: TBD

Instructor
Prof. Dobromir (Doby) Rahnev
Email: rahnev@psych.gatech.edu
Office Hours: TBD

Teaching assistants
TBD

Course webpage: TBD. All of the course material will be available on the course webpage, including lecture slides, announcements, quizzes, and grades.

Required textbook: *Sensation & Perception*, 10th edition by E. Bruce Goldstein and James R. Brockmole. (Note: 9th or 11th edition are acceptable too.)

Course description
Perception seems easy: we simply open our eyes and see the world. However, this apparent simplicity is illusory. Perception is one of the computational masterpieces produced by the brain. Just ask computer scientists who trains computers to recognize even the simplest natural images. So, how does the brain accomplish the feat of perceiving the world? While the answer to this question likely won't be fully known in our lifetime, this course will survey what we do know about perception. We will cover the different senses – vision, hearing, touch, taste, and smell – with a particular focus on vision. We will explore relevant anatomy and brain organization (that are relatively well understood) and discuss the underlying computational principles (that are much less understood).

Course objectives
By the end of this course, you should have:

- A thorough appreciation of the fact that we don't simply see exactly what is out there but that we construct our perceptual reality. You should be able to give multiple examples of how the finished product deviates from reality.
- A broad understanding of how the senses work from the biology of the sensory organs to the relevant brain processing.
- Knowledge of the many ways in which perception can fail, especially as a result of different types of brain damage.

Course modality information
This will be a fully in-person class. Lectures will not be streamed or recorded. All exams will be given in class and students are expected to attend most lectures.

Class structure

Lectures will be designed to be complementary to the textbook: some material from the textbook will never be covered in lecture, and some material from the lecture will not appear in the textbook. You are responsible for all material from both the textbook and lectures. I hope to make the class as interactive as possible. Please feel free to ask questions as they arise, volunteer responses to questions that I pose to the class, and participate actively in all class activities.

Grading

Each assignment will be weighted as follows:

Weekly reflection:	10%
Course project:	15%
Quizzes:	20%
Midterm 1:	15%
Midterm 2:	15%
Final Exam:	25%

Final grades are assigned as follows:

A = 90% - 100%
B = 80% - 89.99%
C = 70% - 79.99%
D = 60% - 69.99%
F = 59.99% and below

Weekly reflection

Learning is best when it occurs over time. You should follow along with the class rather than pull all-nighters before quizzes or exams. To facilitate continuous engagement with the class material, the course will have a "weekly reflection" quiz that will require you to write short responses to two questions related to the material for each week. There will be 12 such reflections graded out of 10 points each. The two weekly reflections with the lowest grades will be dropped.

Course project

For the course project, you are asked to do something creative that relates to the material in the class. This can be a physical artifact of a visual illusion that you build, an interview you conduct with someone that has a sensory deficit, a strange sensory experience that you go through and document, mapping of the loudness of the GT whistle in different places on campus, assessing your own sensitivity to touch on different body parts, etc. Let your imagination run wild. The output of the project needs to be a short video where you showcase what you did.

Quizzes

There will be 6 quizzes over the course of the semester. They will last 10 minutes each and will cover the material since the previous quiz. They will be administered at the beginning of lecture. Quizzes will consist of multiple-choice questions only. Each quiz will count for 4% of your final grade and the lowest quiz score will be dropped (for a total of 20% of the grade).

Exams

There will be two midterms and a final exam. All exams will consist of a combination of multiple choice, fill-in-the-blank, short answer, and essay questions. The two midterms will be non-cumulative in that the content will include material covered since the previous exam. The final exam will cover the material from the whole semester but will focus on the last third of the class.

Office hours
I encourage you to get in touch with me and discuss your progress in the course, different topics that may have sparked your interest, or your career aspirations. I enjoy meeting with students and discussing these topics.

Requesting make-ups or extensions
All students are expected to take all exams and quizzes at the regularly scheduled times. If you have a GT-approved travel or a medical emergency, email all TAs about rescheduling and, if possible, provide documentation. Any requests for extensions (on the weekly reflection or project) should also be addressed to the three TAs. Rejections can be appealed to Doby.

Technology use during class
No use of electronic devices is allowed except for tablets for note-taking with Wi-Fi turned off. You must request and be granted exception for using a laptop. The use of phones is not allowed.

Statement on inclusivity
I am strongly committed to creating a welcoming, inclusive, and equitable environment in the classroom. I want all students to feel safe and included, and welcome any and all feedback on any part of the course or my teaching that falls short of this goal.

Academic integrity
All students are expected to adhere to the Georgia Tech Honor Code in all respects. Violations of the Honor Code are taken extremely seriously and will result in a failing grade in the course and a referral to the Dean of Students for further action. The full Honor Code can be found at https://osi.gatech.edu/students/honor-code.

Core IMPACTS
This is a Core IMPACTS course that is part of the Social Sciences area.

Core IMPACTS refers to the core curriculum, which provides students with essential knowledge in foundational academic areas. This course will help students master course content, and support students' broad academic and career goals.

This course should direct students toward a broad Orienting Question:

- How do I understand human experiences and connections?

Completion of this course should enable students to meet the following Learning Outcome:

- Students will effectively analyze the complexity of human behavior, and how historical, economic, political, social, or geographic relationships develop, persist, or change.

Course content, activities and exercises in this course should help students develop the following Career-Ready Competencies:

- Intercultural Competence
- Perspective-Taking
- Persuasion