**Syllabus**

**Psychophysiology and Cognitive Psychology (introductory course)**

**PSY 310.1**

ID 3067

**Fall 2022**

**Acknowledgements:** Dr. Elena Molchanova, MD, and Ida Sim, MA developed and courteously provided some parts of this course. All materials are used with their kind permission.

**Instructor:** Gulnara Kurmanova, PhD, Associate Professor

**Office:** AUCA; Psychology Department

**Pre-requisites:** Introduction to Psychology

**Credit hours:** 6

**Course status:** Required

**Office hours:** By appointment via e-mail

**Pre-requisites:** **PSY 122**

**E-mail:** [kurmanova\_g@auca.kg](mailto:kurmanova_g@auca.kg)

**Course language:** English

**Class meetings:** 75 minutes per 1 class, 2 classes per week, 15 working weeks.

**Class schedule: Day Time Form Room**

Monday 10:50 - 12:05 Lecture 407

Wednesday 10:50 - 12:05 Seminar 409

**Required textbook:** Gazzaniga, M & et al (1998/2004/2014). *Cognitive neuroscience; the biology of mind.*NY. P.550

You can also find main and additional materials posted at [www.e-course.auca.kg](http://www.e-course.auca.kg/), code word: “PSY310.1”

**Course description**

Psychophysiology studies the relationships between physiological and psychological phenomena, and the Cognitive Psychology - a variety of topics dealing with human cognition. What is perception, what is thought and how people are able to think and memorize something, what attracts and grabs our attention, what is social cognition and self-cognition and, finally, what is consciousness? Those and many other questions will be in a focus of our interest during this course. You will learn how our cognition relates to brain structures and will be intrigued by the split-brain phenomenon. Our course is not going to be extremely easy to deal with, but we really hope the process not to be only challenging, but also supportive.

**Course goal**

The overall goal of the course is to give students the opportunity to gain a foundation for understanding the neural basis of psychological phenomena.

**Learning objectives**

It is expected that by the end of the course the students are able to:

1. formulate the basic cognitive concepts, such as “sensation”, “perception”, “attention”, “memory”, “decision making” and so on, according to study guide.
2. explain how the brain as whole, its specific parts and pathways, as well as neurons and neuron circuits manage our everyday activity and encourage students to provide examples from their own observations and practice.
3. find, discuss and share in adequate form the relevant academic information to answer frequently asked questions related to neuroscience.

**Course policies, rules and procedures**

**Attendance Requirements** It is important to attend classes to master the materials in the course. Please, keep in mind that attendance affects grades. Missing 10 or more classes for any reasons may result in a grade of “F” in the course, so, it is recommended strongly to think about “I” in such case. Please come before the class starts not to distract the attention of your colleagues and instructor and stay with us until the very end of classes. I check your presence in the classroom at arbitrary time, and if you are late or sit out the whole class time and leave just when I mark your attendance, what a misfortune it could be!

**Missed classed and Make-up Exams**

There will be only few satisfactory reasons for missing exams. You may miss exams when you are sick (you should present a reference letter from a doctor), you are presenting a paper at the conference, and you have major family problems.  All make-up exams will be more difficult than the original exam and will be arranged at the end of the semester.

**Academic Honesty** I follow AUCA policy for cheating. Students who have questions or concerns about academic honesty should refer to <https://auca.kg/uploads/IBL%20Dept/Plagiarism%20policy%20final.pdf> for more information. Avoid plagiarism, carefully read the policy on plagiarism that will be posted on the website of the course. This policy document says: “Papers may appear to be plagiarized if students: occasionally use the words of another scholar without quotation marks and proper reference, with the result that it appears that the words are the student’s own; occasionally use the ideas of another scholar without a proper reference; inadequately paraphrase the words or ideas of another scholar; or fail to include the bibliographic citation for all sources used in the process of completing the assignment”. In the case of plagiarizing the paper automatically receives F.

**Documents, devices and on-line policy.** The use of mobile phones and laptops to connect to the Internet for learning tasks is encouraged. Please, put сell phones into silent mode. Make sure my emails don't end up in your spam folder. Keep all your written work on your computer or in the cloud until final grading.If you lost your file needed to your work evaluation, you get zero points for this work automatically.I also expect the student to be able to use the Tracking > Track Changes option of the Word app.

**Individual program.** In exceptional cases, for academical reasons and for students showing excellent academic progress, it is allowed to take a course on an individual program. In this case, the students learn exactly the same topics like others, but follow her/his own schedule. Also, I make decision about the form and terms of her/his reporting.

**Review the course requirements carefully**. This syllabus provides information about the structure, content, organization, and requirements of the course but may change slightly to accommodate unforeseen events. Read it carefully and ask questions if you are confused by any part of it.

**Please, keep track of your points and grade in this course**, so, later on, you will not be surprised by your final grade.

**Communication with me is best via email** at [kurmanova\_g@auca.kg](mailto:kurmanova_g@auca.kg) . As a rule, I answer your emails in 24 hours, except weekends and holidays. If you didn’t get my reply timely, please, contact me personally via phone or Whatsapp. Please, allow at least three days for me to respond. Also, make sure my emails don't end up in your spam folder.

**Syllabus change** I reserve my right to change or modify this syllabus as needed; any changes will be announced in class.

**Evaluation**

**Exams**

There will one midterm and one final exam during the semester. Midterm is in form of quiz with multiple choice. Your exams will include the material covered in the textbook, distributed on e-course materials, and lectures. Students are requested to come in time. Please be respectful for you classmates. If you are late for more than 10 minutes, you will not be allowed to take the exams.

**No additional work or projects**

There is no additional work or projects for extra scores to increase your grade before or after a quiz or exam without being unfair to other students.

**Issues of grading**

If you feel that the evaluation of your work was not fair or you noticed some scoring mistakes in your grade, you should bring these issues to me immediately. In this case you should write a statement arguing your position. Your argument should include citation from the book (page numbers, dates) or other reasonable sources. If your demands are reasonable, the grade will be reconsidered.

As your final exams ended and exams and papers are being graded, please be reminded that grade negotiations are not acceptable at AUCA. You may contact me one time and receive feedback for why you received the grade so that you can perform better in the future. However, you should have no expectation that the grade will be changed. Repeatedly contacting professors with a request of grade change may be considered as grounds for sanction under the anti-harassment policies.

I carefully evaluate your work based on your performance throughout the semester, and my evaluations should be respected. If you think there are objective reasons to disagree with your grade you may follow the rules of the formal grade appeal process after the grades are posted.

A grade of **Incomplete** is reserved for only those special cases when a student has missed a significant portion of the semester's work because of health issues or other unavoidable circumstances.

**All** assigned work must be submitted according to the due date in the e-course. No late assignments will be accepted.

**For additional resources please follow the links below:**

* AUCA Student Code of Conduct (<https://auca.kg/uploads/Students_life/Docs/Code%20of%20Students%202019.pdf>)
* AUCA Bylaws of the Academic Appeals Committee -<https://auca.kg/uploads/Faculty%20Senate/Academic%20Appeals%20Committee%20Bylaws.pdf>
* Library Help, eReserves and research tools:<https://library.auca.kg/>
* Writing Center: <https://warc.auca.kg/>
* Academic Advising Office:<https://auca.kg/en/academic_advising/>
* Psychological Counseling Services:<https://auca.kg/en/psycons/>

**Grading system**

**0 ≤ F ≤ 45 < D- ≤ 50 < D ≤ 55 < D+ ≤ 60 < C- ≤ 65 < C ≤ 70 < C+ ≤75 < B- ≤ 80 < B ≤ 85 < B+ ≤ 90< A- ≤ 95 < A ≤100.**

**Methods of evaluation**

**1.Presentations in class 20%.**

At the very beginning of our course, you should choose a topic for your class presentation (20 minutes for presentation, including discussion). The topic of your presentation should match our course topics.

NB: Please, don’t try to solve the global problems at once. 

You are supposed to present a case, thoughtfully explain the biological basis of behavior, and, if it is appropriate, prognosis. Each of you will present at least three cases, but also you can go through midterm exam. If you are satisfied by your midterm grades, you can provide no presentations more. My role is to suggest a case for presentation and discussion, but if you would like to present a special topic, you are very welcome. **Presentation evaluation criteria,** totally **20 points** for presentation**:**

* It presents a problem or a case in a clear and well-structured manner, clearly establishes connections between biological structures and functions and the discussed psychological phenomena (**6 points**),
* Includes all the necessary sections (see “How to construct your presentation”, **1 point**),
* Is presented in time (**4 points**),
* Is uploaded on e-course before in-class presentation (**1 points**),
* Does not contain direct borrowings from presentations posted on the e-course (**3 points**),
* Causes an active meaningful discussion, and the presenter prepared at least two open-ended questions (**5 points**).

**2.** **Class activity, quizzes and home works 20%**

During the course four activities based on educational games will be provided

**3. Midterm 20%**

The midterm exam will include 50 multiple choice questions

**4. Attendance 20%**

It is expected that a student not only attend but also take part in any class activity. For instance, by the end of lecture a short multiple-choice quiz will be provided. Each of them will include 5 questions based on the information provided during the class. If you answer correctly on all 5 questions, you will get one point for participation**.**

**5.       Final exam** **20%**

The final exam is cumulative and will include multiple choice questions.

If a student does not miss classes, performs class and homework on time and with excellent quality, asks good questions and gives meaningful answers, has higher scores for presentations, and also brings new interesting elements into the educational process, I can evaluate his success with the highest score without final exam.

**Course schedule**

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| **Week** | **Course topics** | **Reading** |
| 1 | Introduction to cognitive psychology.   * A brief history of cognitive neuroscience. | Gazzaniga, Chapter 1 |
| **2** | CNS anatomy. Neuron. NS development. Neuroplasticity. | Gazzaniga, Chapter 2 |
| **3** | Methods of cognitive neuroscience. | Gazzaniga, Chapter 3 |
| **4** | Hemispheres. Functional asymmetry of the brain. Cerebral lateralization and specialization. | Gazzaniga, Chapter 4 |
| **5** | Sensation and perception. | Gazzaniga, Chapter 5 |
| **6** | Vision. Object recognition. Virtual reality. Perspectives of virtual reality implications. | Gazzaniga, Chapter 6 |
| **7** | Attention. | Gazzaniga, Chapter 7 |
| **8** | Action. | Gazzaniga, Chapter 8 |
| **9** | Memory. | Gazzaniga, Chapter 9 |
| **10** | Emotions. | Gazzaniga, Chapter 10 |
| **11** | Language. | Gazzaniga, Chapter 11 |
| **12** | Cognitive control. Artificial intelligence. | Gazzaniga, Chapter 12 |
| **13** | Social Cognition. | Gazzaniga, Chapter 13 |
| **14** | Consciousness. | Gazzaniga, Chapter 14 |
| **15** | Final exam. |  |