**Neurophysiology**

**Prof. Elena Molchanova, MD (Psychiatry)**

**ID - PSY 353**

**SPRING 2023**

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| **Office:** | AUCA; Psychology Department (315) |
| **Pre-requisites:** | General Psychology |
| **Meeting times:** | Friday. 12.45-14.00 |
| **Credit hours:** | 3 credits |
| **Office hours** | Monday, 14.00 – 16.00 |
| **Required books :** | Sapolsky, Robert M. (2004/2014). *Why zebras don't get ulcers*. New York: Owl Book/Henry Holt and Co. |
| **Extra-texts:** | All necessary readings are uploaded into the e-course system. |

*All necessary resources are available at*[*www.e-course.auca.kg*](http://www.e-course.auca.kg/)*.*

***Keyword: PSY353***

**Course description**

The primary objective of this course is to introduce undergraduate students to the field of psychophysiology by introducing the complicated mechanisms of interactions between the Central Nervous System, hormones, stress responses, and human behavior. The main textbook, which is composed of the lectures by Robert Sapolsky, is written easily, full of jokes and vivid examples. This will help students to understand complicated, but necessary for future psychologist topics.

**Learning objectives**

 Upon completion of the course, the student will:

1.      Describe the psychophysiological mechanisms of connection between stress and human behavior

 2.      Identify the key elements of stress behavior in human beings

 3.      Understand connections between stress and the immune system, between stress and mental disorders, between stress and somatic disorders.

 4.      Analyze human behavior using physiological concepts.

**Resources to Support Student Learning**

1. Library Help, eReserves and research tools: <https://library.auca.kg/>
2. Writing Center: <https://warc.auca.kg/>
3. Academic Advising Office: <https://auca.kg/en/academic_advising/>
4. Psychological Counseling Services: <https://auca.kg/en/psycons/>
5. AUCA Student Code of Conduct <https://auca.kg/uploads/Students_life/Docs/Code%20of%20Students%202019.pdf>
6. AUCA Bylaws of the Academic Appeals Committee <https://auca.kg/uploads/Faculty%20Senate/Academic%20Appeals%20Committee%20Bylaws.pdf>
7. Accommodation policy (for students with special educational needs) <https://auca.kg/en/p5732652484/>

**Academic Honesty**

Students are expected to follow the AUCA ACADEMIC HONESTY code. All types of plagiarism are strictly prohibited. “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 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. Self-plagiarism is also dishonest, it is not appropriate to hand in the same work for assignments given in more than one class, without the permission of every instructor”.

If a student fails to observe this requirement, the instructor may assign an “F” for the work or an “F” for the whole class, depending on the type of assignment and relevant circumstances. Students are expected to read and follow the section on Student Academic Dishonesty of the AUCA Code of Student Rights, Responsibilities and Conduct.

* On the first occasion you are caught plagiarizing, you fail that assignment.
* The second time, you fail the course.
* The third time, you may be subject to more severe penalties.

The Registrar, your academic advisor, and the FYS Director will all be informed of your plagiarism. You will also be required to arrange a session with a WARC tutor, who will review your paper with you and help you avoid making the same mistake in the future

**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 the instructor immediately. If your demands are reasonable, the grade will be reconsidered.

There will always be someone who thinks that he/she was “tricked” by an exam question. If you feel that way, you should write a statement arguing your position. Your argument should include citation from the book (page numbers, dates) or other reasonable sources. Oral exam might be considered during the appeal of the student's grade. Submit your comments no later than **1 week** after the exam results. Late submissions will not be considered.

A grade of **Incomplete** is reserved for only those special cases where a student has completed a significant portion of the semester's work and an unavoidable circumstance prevents him or her from completing the course. If you have any questions, please contact the instructor

**All** assigned work must be submitted according to the due date in the e-course or at the beginning of class **on the day it is due**. No late assignments will be accepted.

*Dear student, information in this syllabus is subject to changes and additions announced in class. Review the course requirements carefully. Read it carefully and ask questions if you are confused by any part of it.*

**Course requirements**

1. Attendance - **5 points**
2. Kahoots in the form of lectures and seminars**– 40 points**
3. Midterm exam – **20 points**
4. Final Exam **- 35 points** The exam will cover all factual materials of the course and will consist of both open-ended and multiple choices questions

**Course evaluation criteria:**

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| Attendance | 5 points |
| Kahoots | 40 points |
| Mid-term | 20 points |
| Final Exam | 35 points |

**Grading system:**

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| --- | --- |
| **Grade** | **Percentage Score Range** |
| A | 95-100 |
| A- | 90-94 |
| B+ | 85-89 |
| B | 80-84 |
| B- | 75-79 |
| C+ | 70-74 |
| C | 65-69 |
| C- | 60-64 |
| D | 55-59 |
| D- | 50-54 |
| F | 0-49 |
| I | Case-by-case decision; Incomplete grade is usually assigned because of health issues |
| W | Student may request Withdrawal grade from the course grade to avoid failure or low grade |
| X | Academic policy on X grade  1. X grade specifically denotes non-attendance; for this course, non-attendance of five classes leads to X grade  a. X grade cannot be requested by students and is only given at the discretion of a faculty member;  b. X grade should not affect the GPA;  2. X grade, as well as NP (No Pass) grades, will not allow students to:  a. Be placed on the VPAA President’s list.  3. Receiving an X grade for the same course twice results in an automatic F grade for that course |

**Course schedule**

**(Also available at** [**www.e-course.auca.kg**](http://www.e-course.auca.kg)**)**

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| Weeks | Topics | Readings |
| Week 1 January 20 | Introduction to Course. Review of Course Syllabus and Requirements Structure of the course and course requirements.  Repetition of the CNS structure | All the materials are uploaded into the e-course system |
| Week 2  Jan. 27 | Initial concepts: homeostasis and allostasis. Stress, brain, and autonomic nervous system | Chapters 1-2 of your textbook.    -        *Why Don't Zebras Get Ulcers? (p. 12),*  -        *Glands, Gooseflesh, and Hormones p.19,* |
| Week 3  Feb. 3d | Stress and Metabolism | Chapter 3, and 4 of your textbook:  -        *Stroke, Heart Attacks, and Voodoo Death, p 37)*  -        *Stress, Metabolism, and Liquidating Your Assets (p 57)* |
| Week 4  Feb.10 | Stress and importance of parenting | Chapter 5 and 6  -        *Ulcers, the Runs, and Hot Fudge Sundaes (p 71)*  -        *Dwarfism and the Importance of Mothers (p 92)* |
| Week 5  Feb. 17 | Sex and reproduction | -        *Sex and Reproduction  (p.120)* |
| Week 6  Feb. 24 | Immunity, Stress, and Disease | Chapter 8  *Immunity, Stress, and Disease, ( p. 144)* |
| Week 7  Mar, 3 | Stress and Pain | Chapter 9  -        *Stress and Pain, (p. 186)* |
| Week 8  Mar.10 | Stress and Memory | Chapter 10  -        *Stress and Memory ( p.202)* |
| Week 9  Mar 17 | **Midterm exam** | |
| Week 10, Mar. 24 | Stress and Night's Sleep | Chapter 11  -        *Stress and a Good Night's Sleep (p.226)* |
| Week 11 and 12  April, 14 | Stress and Depression | Chapter 14  -        *Stress and Depression (p.271*) |
| Week 13  April, 21 | Personality, Temperament, and  Their Stress-Related Consequences | Chapter 15  -        *Personality, Temperament, and Their Stress-Related Consequences (p.309)* |
| Week 14  Apr, 28 | Personality, Temperament, and  Their Stress-Related Consequences (cont.) | The same reading materials |
| Week 15  May, 12 | Stress and Pleasure | Chapter 16  -        *Junkies, Adrenaline Junkies, and Pleasure (p.335)* Chapter 12 |
| Week 16  May, 19 | Managing stress | Chapter 18  *Managing Stress (p.384)* |