

<b>Name of Course</b> <b>Cognitive Psychology, Part 2</b>	
<b>Professor:</b> Nikolay Ratchev	
<b>Type of course</b> Core	<b>Degree of education</b> bachelor
<b>Year of Education</b> Second	<b>Semester</b> Third
<b>Credits</b> 6,5	<b>Hours</b> 30 hours of lectures+ 30hours of seminars
<b>Form of education</b> Full-time education	<b>Language of education</b> Bulgarian
<b>Evaluation</b> A multiple-choice final test and a term paper	

### **Prerequisites**

Course assignment requires knowledge in Cognitive psychology - part 1, Psycholinguistics, Experimental Psychology - Part 1&2.

### **Course Objectives**

Upon completion of the course, students are expected to:

- Have knowledge of the main approaches in the study of thinking (defined as problem solving, judgments and decision making, categorization, and deductive reasoning)
- Have knowledge of up-to-date studies of the influence of language and culture on cognitive processes, intelligence, and learning;
- Develop their critical skills of analyzing psychological research;
- Develop their practical skills of planning, conducting, and presenting empirical research in cognition (through the empirical project)

### **Grade components**

- Participation in seminars: 17%
- Empirical Study: 33%
- Multiple-Choice Test: 50%

### **Lectures and seminars**

#### **1. Problem Solving**

Gestaltist and information-processing approaches to problem solving. The problem solving cycle. Types of problems. Obstacles and aids to problem solving.

#### **2. Creativity and Expertise**

Problem solving and creativity. Creativity as a process, a product, a situation or a personality trait. Factors influencing the creative process. Organization of expert

knowledge. Differences in information processing between experts and novices. Real and make-believe expertise.

### **3. Making Judgments**

Inductive reasoning and probabilities. Intuitive judgments of probability: heuristics and biases. Representativeness, availability, and anchoring. The impact of present knowledge on judgments: hindsight bias. The cognitive illusions debate.

### **4. Decision Making**

Normative and descriptive theories of decision making. Rationality and choice under uncertainty. Prospect theory. The framing of decisions. Loss aversion. Factors influencing preference reversal. Cognitive load and choice.

### **5. Deductive Reasoning**

Logical and psychological models of deductive reasoning. Form and content of syllogisms. Validity and truth in syllogisms. Categorical syllogisms. Atmosphere effect. Belief bias. Mental models and deduction. Conditional syllogisms. Confirmation bias. Pragmatic reasoning schemes. Motivated reasoning.

### **6. Categorization**

Benefits of forming categories. Concept identification: Discovering rules and attributes. Strategies of concept identification. Critique of the Concept Identification paradigm. The structure of natural categories. Similarity-based approaches to categorization: prototypes and exemplars. Essentialist approach to categorization.

### **7. Non-literal language processing**

Types of non-literal language. Approaches to understanding metaphors. The standard pragmatic view. Conversion-to-simile and class inclusion views of metaphor. Conceptual mapping hypothesis. Embodied cognition and the interpretation of non-literal language.

### **8. Thinking, language, and cultural practices**

Linguistic universals: Grammatical and semantic aspects. Linguistic relativity and determinism. Influence of lexical and grammatical aspects of language on nonlinguistic information processing. Differentiation of language and culture as factors influencing cognitive processes.

### **9. Psychometric and cognitive approaches to intelligence**

Psychometric approach to intelligence: Holistic and factor theories. Information processing and intelligence. Working memory and the distinction between linguistic and spatial ability.

### **10. Alternative approaches to intelligence**

Cultural context and intelligence. Sex and Race differences in intelligence. The Flynn Effect. Implicit theories of intelligence. Intelligence as a prototype. Expanding the concept of intelligence: Multiple Intelligences and Hierarchic theories. Shrinking the concept of intelligence: intelligence vs. rationality.

### **11. Behavioristic and cognitive models of learning**

Classic and operant conditioning. Learning through imitation. Types of learning: motor, cognitive, and mixed skills. The role of hypothesis testing in concept learning. The law of

effect and the terminal insight model. Implication of cognitive learning research on the idea of “learning from experience”.

## **References**

### **Required references**

Андреева, Л. (съст.) (1998). *Христоматия по психология на познанието*. София.

Стърнбърг, Р. (2012). *Когнитивна психология* (5<sup>то</sup> изд.) София: Изток – Запад.

### **Additional references**

Андерсон, Дж.Р. (2002). *Когнитивная психология*. Санкт-Петербург: Питер.

Канеман, Д. (2012). *Мисленето*. София: Изток-Запад.

Goldstein, E. B. (2008). *Cognitive psychology: Connecting mind, research, and everyday experience*. Belmont, CA: Thomson-Wadsworth.

Nisbett, R. (2003). *The geography of thought: How Asians and Westerners think differently... and why*. New York, NY: Free Press.

Reed, S. K. (2008). *Cognition: Theory and applications* (7<sup>th</sup> ed.). Belmont, CA: Thomson-Wadsworth.

Robinson-Riegler, G. & Robinson-Riegler, B. (2008). *Cognitive psychology: Applying the science of the mind* (2<sup>nd</sup> ed.). Boston, MA: Pearson.

### **Standards of Academic Integrity**

Generally, academic fraud and dishonesty include, but are not limited to the following categories: cheating, fabrication, plagiarism, multiple submissions, etc.

- **Cheating:** Using unauthorized notes, aids or information on an examination; altering a graded work prior to its return to a faculty member, allowing another person to do one’s own work and submitting it for grading.
- **Fabrication:** Inventing or falsifying information, data or citation; presenting data gathered outside of acceptable professorial guidelines; failing to provide an accurate account of how information, data or citations were gathered; altering documents affecting academic records; forging signatures or authorizing false information on an official academic document, grade, letter, form or any other university document.
- **Plagiarism:** Submitting material that in part or whole is not one’s own work; submitting one’s own work without properly attributing the correct sources of its content.
- **Multiple Submissions:** Submitting identical papers or course work for credit in more than one course without prior permission of the instructor.

A breach of ethics or act of dishonesty can result in:

- failure of an entire course (blatant plagiarism, cheating on a test or quiz)
- academic suspension or expulsion from the university.