UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

# Learning, Thinking and Decision Making

**2021-2-E2004P008**

## Learning area

STUDY OF THE PSYCHOLOGICAL ASPECTS UNDERLYING COMMUNICATION

## Learning objectives

*Knowledge and understanding*

- Human cognition
- Development of knowledge and beliefs
- Psychological factors biasing human knowledge and its employment

*Applying knowledge and understanding*

- Applying what is known of human cognitive processes to the comprehension of common social and communication contexts
- Devising debiasing methods for the correct communication of information

## Contents

The course analyses in detail, and with practical examples, the main empirical studies and theoretical models concerning learning, concept development, deductive and inductive reasoning, hypotheses testing, problem solving, and decision making.

## Detailed program

- learning
- concepts and categorisation
- reasoning, exploration and testing of hypotheses, problem solving
- decision making

## Prerequisites

None

## Teaching methods

Different teaching methods will be used:

1. Asynchronous lectures. They will be 2/3 of all the lectures and will be used to present and explain the contents.

2. Synchronous videoconferences. They will be 1/3 of all the lectures. Approximately half of these lectures will be used to sum up and clarify the topics presented in the asynchronous lectures. During these lessons, large space will be given to questions and/or request of clarifications on what presented during the previous lectures, or to discuss together theoretical/methodological issues of particular interest. The other half of these synchronous

videoconferences will be used to make practice exercise and discuss/comment together the results of these exercises. Practical exercises are optional (i.e. not mandatory). To be attendant, the student has to do the practical exercises and take part to all other synchronous videoconferences. Practical exercises will be (a small) part of the final vote (see below for further details).

3. Short self-evaluation questionnaires. Every week, students will be asked to fill in a short questionnaire with multiple-choices questions on the topics presented during the last asynchronous lectures. These questionnaires will NOT be evaluated. However, students will be able to self-evaluate their learning progresses. Filling the questionnaires is not mandatory, but encouraged.

Every week will be (approximately) structured as follows: 2 asynchronous lectures + 1 synchronous videoconference + short self-evaluation questionnaire. All lessons will be videorecorded.

## Assessment methods

The modality of the exam will be defined and updated on the basis of the University rules for COVID-19 emergency.

Written exam (step 1) with optional oral exam (step 2).

Step 1: 4 computer-based open questions. Answers have a length limit of 15 lines. Questions may be on both theoretical and empirical/methodological issues. Each question is evaluated with a scale that goes from 0 (unanswered question, or totally not consequential or patently wrong answer) to 7.5 (well-argued complete and correct answer). The sum of the scorse of the 4 questions gives the final grade of the exam or – if the grade is at least 18 – the starting grade of the optional oral exam.

**The student has three days from the publication of the grades of the written exam for accepting the grade, retiring from the exam, or else requiring an oral exam (please remember that also the teacher can ask for an oral exam: in this latter case, the student cannot accept the grade of the written exam and, in case he/she is absent from the oral exam, he/she will be considered retired).**

Step 2: optional oral exam (for students that have obtained at least 18 in step 1). The oral exam has two parts. Firstly, the open answers to the written exam will be discussed and possibly self-corrected and completed by the student. This part enables the student to understand why his/her exam was so graded. Secondly, each student receives new questions to test his/her depth of understanding and abilities at communicating effectively one or more critical issues of the program. The grade obtained at step 1 (written exam) is adjusted on the basis of the answers given by the student during the oral exam. Note that the oral exam may either increase or decrease the grade of the written exam.

For students taking part to all synchronous activities (and that have obtained at least 18 in step 1 - written exam): Each practical exercise will be evaluated with a score from 0 to 3. At the ends, the average score will be computed and this score will be summed to the grade obtained in step 1 (and possibly in step 2). The score is rounded down for decimal of .5 or below and up for decimal of .6 or above). Note that this score is summed to the other scores only if the student obtain at least 18 in step 1.

## Textbooks and Reading Materials

Cherubini P. (a cura di) (2012). Psicologia generale. Milano: Raffaello Cortina Editore.

Chapters:

- 1: only paragraphs 1.1, 1.1.1, 1.1.2, 1.4.1, 1.4.2.

- 7: all the chapter

- 8: all the chapter, except: Box 8.1, Table 8.9, Figure 8.5, Equations 8.9-8.12, Paragraphs 8.6.2.3, 8.7.3.1, 8.7.4.3, 8.7.4.4)

- 9: all the chapter, except:  Box 9.1, Paragraphs 9.5.3.1, 9.5.6

- 13: only from 13.1 to 13.3.3 included.

Note that the topics that are not explained in lectures, but are present in the indicated paragraphs of the textbook, are part of the exam programme. Note also that the indicated textbook sections are to be studied completely and extensively (including boxes, figures and captions).

Possible support materials can be made available by the teacher on the course website.