# .- Sensory Analysis of Foods

## Prof. Gian Paolo Braceschi

COURSE AIMS AND INTENDED LEARNING OUTCOMES

The aim of the course is to introduce students to the sensory analysis techniques for food and drinks, providing students with the basics for:

* evaluating the perceived quality of the products;
* monitoring the processing processes;
* innovating products and processes.

At the end of the course, the student will know:

* the main sensory analysis techniques;
* the techniques of formation of sensory analysis panels;
* techniques for processing and validating sensory analysis data.

In addition, students will be able to:

* design and perform sensory analysis tests;
* train panels of tasters to perform tests for any product category;
* identify the appropriate test according to the objectives;
* validate and interpret the data obtained from the sensory analysis;
* process sensory data and link them to the relevant production processes;
* correlate sensory data to process data and chemical-physical data.

COURSE CONTENT

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|  | ECTS |
| Fundamental elements of sensory analysis |  |
| Sensory analysis, training, selection and evaluation of judges. The sensory analysis system: Panel, Panel Leader, Data Processing Method, Organisational System and suitable premises. | 1.0 |
| Basic principles of sensory analysis: psychophysiology of perception, sense organs, psychophysiological and environmental factors, the language of the senses. | 1.0 |
| Tutorials | 1.5 |
| Testing and processing of results |  |
| Theory and practice of sensory analysis: qualitative and quali-quantitative discriminant tests, descriptive tests, tests with high informational usefulness, classification and scoring tests, sensory scales. Statistical processing and interpretation of data. | 1.0 |
| Tutorials |  |
| Psychophysiological perception tests (Dusay, visual, gustatory, gustatory thresholds, olfactory), execution and processing of discriminant tests. Descriptive test: organisation according to different product categories, preparation of evaluation forms, data processing, validation of data and judges. | 1.5 |

READING LIST

L. Odello-M. Violoni-L.Falciati-S.Bogetti*, Psicofisiologia della percezione*, Centro Studi Assaggiatori, 2018.

Sarah E. Kemp-Tracey Hollowood-Joanne Hort, *Sensory Evaluation, A Practical Handbook,* A John Wiley & Sons, Ltd., Publication, 2009

M.C. Meilgaard-G.V. Civille-B.T. Carr*, Sensory Evaluation Techniques*, CRC Press, Taylor & Francis Group, 2006.

M. Ubigli, *I profili del vino. Introduzione all’analisi sensoriale*, Il Sole 24 Ore Edagricole srl, Bologna, 2004.

TEACHING METHOD

The course includes frontal lessons in the classroom with the support of slides, guided practical activities (individual and group), study visits and / or seminars with external interventions.

ASSESSMENT METHOD AND CRITERIA

The exam will take place in different ways for those students attending lectures and those not attending lectures.

- Students attending lectures will, at the end of the course, take a non-exclusionary written test aimed at assessing their level of learning after attending all of the lectures. The three-hour test will be structured in two parts: the first part, comprising thirty closed- and open-ended questions, will cover the topics of “Fundamental elements of sensory analysis”; and the second part, comprising three open-topic questions, will cover "Testing and processing of results". Each question in the first part will be assigned a mark of 0.5/30 while the open-topic questions in the second part will be assigned a mark of 5/30; these will then contribute to forming the overall mark expressed out of thirty. Passing the final test, within one year of its execution, exempts the student from having to prepare the same part of the course for the final exam. This will be oral in nature, covering the failed part of the written test, and will carry a mark out of thirty, which will be averaged with the mark obtained in the written test.

Any student who does not wish to make use of the mark obtained in the written test with its associated partial exemption, may take the oral exam in the same way, and on the same contents indicated below, as for non-attending students.

- Those students not attending lectures will be required to take the oral exam on the entire course contents indicated in the degree course guide and following the reading list indicated therein. This will be oral in nature and will be based on at least one question on the "Fundamental Elements of Sensory Analysis" section, and one on "Testing and Processing Results"; the assessment will be based on the student's knowledge of the contents but, above all, on their ability to draw connections between the various parts of the programme. If the student does not answer one of the questions, another question will be reformulated on the same part of the programme (with a maximum of two unanswered questions for each part). The final mark out of thirty will be obtained from the average of the individual questions, including also those not answered.

NOTES AND PREREQUISITES

The course does not require any particular prerequisites related to the contents. Previous knowledge of chemistry and biochemistry can facilitate the understanding of the course.

HOURS AND PLACE OF OFFICE HOURS

Prof. Gian Paolo Braceschi receives students after class hours and by appointment by e-mail ([gianpaolo.braceschi@unicatt.it](mailto:gianpaolo.braceschi@unicatt.it) ).