

# Postgraduate Program in Food and Nutrition

## Program description

The Postgraduate Program in Food and Nutrition is aligned to the Food Science, focused on research about food consumption and its relationship with human health. Through the training of human resources to work in research and teaching, the program includes classic and modern concepts of nutrition associated with a deep knowledge on food; the impact of nutrient changes and the bioactive compounds during industrial processing on human health; modern technologies for the sensory evaluation and development of new protocols aimed at special groups of consumers; and studies on the consumption profile and public policies in Food and Nutritional Security. The program was awarded grade 5 in the CAPES evaluation process for the quadrennial period of 2017.

## Program Courses

Course 47M – Master’s degree in Food and Nutrition  
Course 81D – Doctorate degree in Food and Nutrition

## Concentration Areas

47M - Master in Food and Nutrition  
AC - Food Consumption and Quality  
AD - Experimental Nutrition and Nutrition Applied to Food Technology

81D - Doctorate in Food and Nutrition  
AC - Food Consumption and Quality  
AD - Experimental Nutrition and Nutrition Applied to Food Technology

## Areas of Research

The program has two concentration areas. The area Food Consumption and Quality has focused on the sensory science, consumption habits, and public policies aimed at food and nutrition security, with the following objectives: 1) study intrinsic (appearance, aroma, flavor, and texture) and extrinsic (technology, price, health and nutrition claims, etc.) attributes of foods, their relationship to consumer preferences and choices; 2) evaluate eating habits and their relationship with the individual's health; and 3) the relationship between public policies and food consumption. The area Experimental Nutrition Applied to Food Technology aims at the research, development, and evaluation of foods *in natura* as well as those subjected to different processes, assessing the effects on health promotion and meeting specific needs and nutritional quality.

## Master’s Degree in Food and Nutrition

## Completion time

The minimum and maximum durations for the Master's course in Food Consumption and Quality are 12 and 36 months, respectively. To obtain a Master’s Degree in Food and Nutrition/Food Consumption and Quality, the student must complete the

requirements of 16 credits corresponding to 6 compulsory credits and 10 elective credits.

The minimum and maximum durations for the Master's course in Experimental Nutrition and Nutrition Applied to Food Technology are 12 and 36 months, respectively. To obtain a Master's Degree in Food and Nutrition/Experimental Nutrition and Nutrition Applied to Food Technology, the student must complete the requirements of 16 credits corresponding to 6 compulsory credits and 10 elective credits.

### Program Evaluation and Recognition

The Master's course in Food Technology was awarded grade 5 in the CAPES evaluation process for the quadrennial period of 2013/2016 and were recognized by the Ordinance 609 of the Ministry of Education (MEC), of 03/14/2019, published in the Official Gazette of 03/18/2019.

### Requirements for Obtaining the Title

#### Completion time

Fulfillment of the course credits and grades as established in the course completion, and academic performance of a minimum grade point of 2.5 from the second academic period attended

#### Foreign Language Aptitude

Students must pass an aptitude test in a foreign language (English) to defend the master's dissertation in the Food and Nutrition Program.

#### Qualification exam

The qualification exam for Master's students is included in the discipline TP199 - Seminars - and must be carried out by the end of the second semester of the first year of the course. Otherwise, the student may be disconnected from the Program.

#### Scientific production

As established in the current Normative Instruction.

#### Dissertation/Thesis Defense

The student must pass the dissertation public defense.

Master's students must prepare a dissertation on the chosen subject in agreement with their supervisors, which must be approved by the Postgraduate Committee.

### Curriculum / Course Program

In the list of disciplines, the numbers in the 2<sup>nd</sup> and 3<sup>rd</sup> columns correspond to the total workload and credits for each subject, respectively.

#### Mandatory Activity

AA001 – Master Thesis

#### Mandatory Disciplines

TP126 - Food and Human Nutrition (4)

TP009 – Seminars (2)

#### Elective Disciplines

**Elective Disciplines I:** The student must obtain 10 credits from the subjects listed below, chosen in agreement with the supervisor.

TP002 – Anatomy and Physiology of the Sense Organs

TP009 – Special Topics in Food and Nutrition

TP106 – Sensory and Instrumental Analysis

TP208 – Experimental Methods in Nutrition

TP242 – Food Lipids and their Nutritional Implications

TP247 – Properties and Transformations of Food Proteins

TP254 – Biochemistry of Micronutrients and Bioactive Substances

TP255 – Nutritional Biochemistry

TP326 – Quality Control

TP357 – Applied Microencapsulation of Foods and Nutrients

TP373 – Microbiota and the Role in Nutrition and Health: New Perspectives

TP374 – Bioactive Compounds Evaluation in Vitro e Ex Vivo

TP383 – Food, Obesity, Inflammation and Cognition

TP384 – Food and Society

TP386 – Intellectual Property, Innovation and Entrepreneurship: Contemporary Issues

TP400 – Natural Pigments - from Chemical Structure to Health Benefits

TP401 – Integrative activities in Outreach and Research

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Any postgraduate discipline taught at Unicamp

## Doctorate Degree in Food and Nutrition

### Completion time

The minimum and maximum durations for the Doctorate course in Food Consumption and Quality are 24 and 60 months, respectively. To obtain a Doctorate Degree in Food and Nutrition in that area, the student must complete the requirements of 16 credits corresponding to 6 compulsory credits and 10 elective credits.

The minimum and maximum durations for the Doctorate course in Experimental Nutrition and Nutrition Applied to Food Technology are 24 and 60 months, respectively. To obtain a Doctorate Degree in Food and Nutrition in that area, the student must complete the requirements of 16 credits corresponding to 6 compulsory credits and 10 elective credits.

### Program Evaluation and Recognition

The doctorate course in Food and Nutrition was awarded grade 5 in the CAPES was awarded grade 5 in the CAPES evaluation of 2013/2016 and were recognized by the Ordinance 609 of the Ministry of Education (MEC), of 03/14/2019, published in the Official Gazette of 03/18/2019.

### Requirements for Obtaining the Title

#### Completion time

Fulfillment of the course credits and grades as established in the course completion, and academic performance of a minimum grade point of 2.5 from the second academic period attended

### **Foreign Language Aptitude**

Students must pass an aptitude test in a foreign language (English) to defend their thesis in the Food and Nutrition Program.

### **Qualification exam**

The qualification exam for doctorate students consists of two steps:

– Qualification exam in the research field (work plan): it is included in the discipline TP199 – Seminars, and must be carried out by the end of the 4th semester after admission. Otherwise, the student may be disconnected from the Program.

– General examination: it can be done until the 7<sup>th</sup> semester through:

- 1) Proof of an accepted manuscript with the experimental results from the doctoral study, indexed in the Web of Science database, with classification in Qualis-CAPES, as defined in the Current Normative Instruction, or
- 2) Written and oral presentation of the experimental results from the doctoral project

### **Scientific production**

As established in the current Normative Instruction.

### **Dissertation/Thesis Defense**

The student must pass the dissertation public defense.

The doctoral student must produce a thesis related to a research study, with a significant contribution to knowledge about the subject, chosen in agreement with his supervisor and approved by the Postgraduate Committee.

## **Curriculum / Course Program**

In the list of disciplines, the numbers in the 2<sup>nd</sup> and 3<sup>rd</sup> columns correspond to the total workload and credits for each subject, respectively.

### **Mandatory Activity**

AA002 – Doctoral Thesis

### **Mandatory Disciplines**

TP126 - Food and Human Nutrition (4)

TP009 – Seminars (2)

### **Elective Disciplines**

**Elective Disciplines I:** The student must obtain 10 credits from the subjects listed below, chosen in agreement with the supervisor.

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TP326 – Quality Control

TP357 – Applied Microencapsulation of Foods and Nutrients  
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TP383 – Food, Obesity, Inflammation and Cognition  
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TP386 – Intellectual Property, Innovation and Entrepreneurship: Contemporary Issues  
TP400 – Natural Pigments - from Chemical Structure to Health Benefits  
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