Science of Cooking

2019-2020

Term
Autumn semester:
30 August - 10 February 2020

Spring semester:
10 February 2020 - 13 July 2020

General information
This minor is open to students in the third year or higher of the bachelor phase of a biomedical or chemistry study. A good background in molecular biology and microbiology is desired. The minor is taught in English and has a study load of 30 ECTS. The courses will be given twice a year, during Autumn and Spring semesters.

Science of Cooking
Although most people regularly cook, they generally do not consider the science behind it. To understand what happens when we cook food, you need to be familiar with the underlying biological, chemical and physical principles.

The science of cooking is by no means new, however, it was only in the last few decades that science has truly been applied to the kitchen. Nowadays, top chefs work together with scientists, paving the way for new flavors, ingredients, preparations and tasting experiences.

In this program we will explore the “applied science of deliciousness” through the history of cooking, the fundamentals of natural sciences, ingredients, cooking techniques and kitchen equipment, including modernist cooking. This course will not only satisfy the hunger for knowledge, it might also help in cooking: by understanding recipes, to explore beyond the recipes and to be creative with (new) ingredients.

This program consists of theoretical courses of 20 ECTS and a practical of 10 ECTS. During the second period you will apply the theory in our specialized food lab by conducting your own research project.

We wish you an educative and tasteful course!

Courses
The following courses are included in the program:

- History of Cooking (3 EC)
- Fundamental Science of Cooking:
  I: Microbiology and food safety (3 EC)
  II: Food Chemistry (3 EC)
  III: Physics of food and water (3 EC)
  IV: Physiology and health (3EC)
- Analytical Techniques (3 EC)
- The modernist kitchen (2 EC)
- Science of Cooking research project (10 EC)
Entry requirements / level
The minor is at undergraduate level, but you will need two years of training in a biological or chemistry study to follow the tuition. Furthermore, basic knowledge of molecular biology and English is required.

Literature
Relevant and recent scientific literature, to be announced later.

Examination
Examination of the courses will be based on assignments, reports and tests.

Science of Cooking research project
During the research project you will apply the theory in our specialized food lab. You will either formulate your own research question, or choose a research question suggested by the lecturers. Students will write a project proposal for a go/no go which includes theoretical background and a detailed plan regarding ingredients, equipment, planning & safety. This plan is also presented in the group for feedback. Subsequently, the students will carry out the research project and write a report about the results. An excursion to a top-restaurant kitchen will be part of the practical.

Application form
Interested? Please fill in the required application form, which can be downloaded from our website: http://www.hsleiden.nl/english

Application deadline
15 November 2019 (spring semester)
15 November 2019 (fall semester)

Tuition fees
There are no tuition fees required for students from partner institutions.

Accommodation
Our university does not have its own student accommodation. A local student housing corporation offers temporary, furnished rooms and apartments to international students. You can find more information about accommodation on our website.

Contact
If you have questions about the content and/or the organization of the minor please contact Wouter van Zon, PhD
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For information about the application procedure and/or accommodation please contact Lisette Oosterhuis
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