

# SENSORY AND CONSUMER SCIENCE GRADUATE CREDIT CERTIFICATE PROGRAM

<b>Person-in-Charge</b>	Helene Hopfer
<b>Program Code</b>	SNCNSC
<b>Campus(es)</b>	University Park World Campus

The primary goal of this graduate certificate program is to provide formal education to sensory and consumer professionals in the key areas of (i) psychophysical and biological principles and human behavior as it guides and informs sensory and consumer testing, (ii) fundamentals of good sensory practice including experimental design, method selection, analysis, and reporting, (iii) applied statistics and data analysis as used in sensory and consumer science, and (iv) the interaction of sensory and consumer science with marketing, consumer understanding, product development, and business.

The 12-credit curriculum integrates all these aspects in a synergistic manner.

**Effective Semester:** Fall 2024  
**Expiration Semester:** Fall 2029

## Admission Requirements

Applicants apply for admission to the program via the Graduate School application for admission (<https://gradschool.psu.edu/graduate-admissions/how-to-apply/>). Requirements listed here are in addition to Graduate Council policies listed under GCAC-300 Admissions Policies (<https://gradschool.psu.edu/graduate-education-policies/>). International applicants may be required to satisfy an English proficiency requirement; see GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

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All individuals wishing to pursue a graduate certificate program, even those already enrolled as a graduate degree student, must apply and be admitted using the Graduate School's online application (<http://gradschool.psu.edu/prospective-students/how-to-apply/>). Applicants need to demonstrate successful completion of undergraduate level statistics (STAT 200 or equivalent).

The language of instruction at Penn State is English. English proficiency test scores (TOEFL/IELTS) may be required for international applicants.

See GCAC-305 Admission Requirements for International Students (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-300/gcac-305-admission-requirements-international-students/>) for more information.

## Certificate Requirements

Requirements listed here are in addition to requirements listed in Graduate Council policy GCAC-212 Postbaccalaureate Credit Certificate Programs (<https://gradschool.psu.edu/graduate-education-policies/gcac/gcac-200/gcac-212-postbaccalaureate-credit-certificate-programs/>).

Code	Title	Credits
<b>Required Courses</b>		
STAT 500	Applied Statistics	3
FDSC 403	Sensory Data Collection & Analysis	3
FDSC 515	Sensometrics - Applied Multivariate Analysis in Sensory & Food Science	3
FDSC 516	Consumer Insights	3
<b>Total Credits</b>		<b>12</b>

## Courses

Graduate courses carry numbers from 500 to 699 and 800 to 899. Advanced undergraduate courses numbered between 400 and 499 may be used to meet some graduate degree requirements when taken by graduate students. Courses below the 400 level may not. A graduate student may register for or audit these courses in order to make up deficiencies or to fill in gaps in previous education but not to meet requirements for an advanced degree.

## Learning Outcomes

- Demonstrate proficiency in the fundamental principles of sensory & consumer science.
  - List the three major classes of sensory methods: discrimination, descriptive, and affective tests.
  - Describe good sensory principles in test design, execution and analysis.
  - Select and implement appropriate methods to measure sensory properties of stimuli.
  - Select and implement appropriate methods to measure acceptability of consumer products.
  - Articulate the biological mechanisms behind taste, oral touch, smell, and color vision, and explain how they influence flavor perception, including how normal biological variation can affect perception and acceptability.
- Demonstrate proficiency in the fundamental principles of consumer science.
  - Develop an understanding of the contribution of consumer insights in product development.
  - Identify, select, and apply qualitative, quantitative and hybrid methods to obtain consumer insight.
  - Recognize, and identify key consumer biases, and examine trade-offs in research and consumer behavior.
- Demonstrate proficiency in the fundamental principles of statistics as it relates to sensory & consumer science.
  - Identify the main types of statistical analyses related to the three major areas of sensory methodology – discrimination, descriptive, affective tests.

- b. Select and implement the appropriate statistical method to quantify, visualize and/or describe sensory responses.
- c. Evaluate the quality and interpret the results of statistical analyses to answer a research question.
- d. Describe differences between the major classes of sensory testing methods, and situations where each is appropriate.
- e. Design a complete sensory test, including the data analysis plan, to answer a given research question.

## Contact

<b>Campus</b>	University Park
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<b>Program Website</b>	View ( <a href="https://www.worldcampus.psu.edu/degrees-and-certificates/penn-state-online-sensory-and-consumer-science-certificate/overview/">https://www.worldcampus.psu.edu/degrees-and-certificates/penn-state-online-sensory-and-consumer-science-certificate/overview/</a> )
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