NP 320: Neurobiological Foundations in Nutritional Psychology (CAMFT)

7.5 CE
$299 USD

This course delves into the complex brain mechanisms influencing **why we eat beyond simple hunger or recommended dietary patterns**, framed through the interdisciplinary field of Nutritional Psychology. It begins by exploring the Dual-System Model, which contrasts homeostatic eating (for energy balance) with hedonic eating (for pleasure), and how these sometimes conflicting drives interact with internal signals, emotions, and environmental cues.

Moving beyond this binary view, the course incorporates higher cognitive functions such as memory and impulse control, illustrating how these **mental processes intertwine with biological systems to shape eating behaviors.**

The heart of the course lies in **five core neurobiological mechanisms that govern eating behavior.** These include associative learning and habit formation that make environmental **food cues potent triggers**; the dopamine-driven reward system that can escalate compulsive eating as it adapts to highly palatable foods; and the cognitive control networks in the prefrontal cortex responsible for decision-making and **self-regulation**, which can be compromised by stress and hormonal imbalances. Additionally, the gut-brain axis illustrates how microbial and hormonal signals influence appetite and food preferences, while neuroinflammation is shown to disrupt the brain's regulation of hunger, reward, and emotion, potentially driving unhealthy eating cycles.

Taken together, the course reframes **eating behavior as the product of dynamic interactions** among brain systems shaped by genetics, experience, and environment rather than mere willpower. By grounding Nutritional Psychology in neurobiology, this course equips learners to understand how intertwined factors like reward sensitivity, interoception, cognition, memory, stress, and inflammation impact food choices. This comprehensive perspective advances personalized approaches to nutrition and behavioral change, aligned with the core mission of decoding brain-behavior relationships to improve mental health and dietary outcomes.

Course meets the qualifications for 7.5 hours of Continuing Education Credit for LMFTs, LCSWs, LPCCs, and LEPs as required by the California Association of Marriage and Family Therpists (CAMFT Provider #1000102)

LEARNING OBJECTIVES

Explain the dual-system model of eating behavior, including homeostatic and hedonic pathways.

Identify three key brain regions involved in hedonic eating

Define and differentiate the two core processes of 'wanting' and 'liking' in the context of hedonic eating.

List and differentiate the three key brain regions involved in executive control and emotional regulation in eating behavior

Identify and explain the four key brain regions involved in food cue reactivity and associative learning

Describe the three stages of the dopamine-driven habit loop in cue-triggered eating behavior

Describe the three key pathways through which the gut-brain axis influences eating behavior

Describe the three major effects of neuroinflammation on appetite dysregulation

COURSE DEVELOPERS

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COURSE POLICY

Target Audience: Mental health, nutrition, and allied health professionals.

OPTIONAL COURSE WORKBOOK: An interactive, follow-along, fill-in-the-blank companion workbook with an answer key designed to reinforce your knowledge of key principles and concepts can be purchased to support your learning in this course. Purchasing this **optional** workbook provides an **additional 3 CE** and costs **$49 USD**. Completion of all sections in this optional downloadable workbook is required to earn 3 CE. No partial credit. Workbooks must be completed and emailed to **admin@nutritional-psychology.org** for review/approval to receive CE. Purchase this additional downloadable companion workbook on the course page.

CE hours do not include meals or breaks. Course certificates are awarded upon successful completion of the course and its evaluation. If students do not receive their certificate they can email editor@nutritional-psychology.org. CNP maintains course records for 7 years.

This course is accessible for 3 months (90 days) **from the date of enrollment.** The course itself cannot be downloaded; however, **Module Download Kits** with key information from each module can be downloaded while enrolled. Questions, concerns, or grievances may be directed to the course administrator, via the course messaging platform, or emailed to admin@nutritional-psychology.org. Failing a timely resolution, learners may follow instructions in the course Conflict Resolution Procedure.

The one-time course fee payment is due at the time of enrollment and is considered non-refundable. Exception for a partial refund (up to 75%) will be considered should the learner have proof of severe circumstances leaving them unable to complete the course.