PSYC 496 NCL

Title: Neurosci of Eating & Drinking

Course description:

Eating and drinking are fundamental not only to survival but also to pleasure and happiness. Have you ever wondered why you keep eating when you are already full? Do you know how eating and drinking behaviors are strongly affected by our surroundings? Would you like to learn how taste and smell mediate eating and drinking? This course will critically probe and review the current understanding of neural mechanisms underlying normal and aberrant ingestive behaviors.

Twice a week between 1-2:30 PM on WF

GRADE BREAKDOWN

Exam - 1 15%

(Wednesday, September 24)

Exam - 2 20%

(Wednesday, October 29)

Exam - 3 30%

(Wednesday, December 10)

Term Paper 25%

(Due Monday, December 15)

Class Participation 10%

EXAM FORMAT

All exams will be short answer essay format coupled with some multiple choice questions as well.

General Topic to be covered: Reading materials will be listed. The students can obtain through library link or from the instructor.

1. Smell & taste: how they support eating and drinking behaviors

 → Perfumer vs. wine and beer expert

 → flavor and food preference aversion learning (classical vs. operant conditioning)

 → how to make healthy food taste good?

2. The control of eating

 → how is eating initiated : hunger?

 → hypothalamic control of eating : obesity vs. anorexia nervosa

 → limbic and cognitive control of eating: do our body automatically direct us to foods for healthy lives?

 → wisdom of the body: intakes of macro- vs. micronutrients

 → Food addiction: Is it real?

3. Eating disorders

 → anorexia/ bulimia nervosa

 → binge eating

 → pica: dirt eating

 → Gourmand syndrome: right PFC lesion; brain lesion and eating disorders

4. Control of body weight and obesity treatment

 → Why is losing weight difficult?

 → Case report: diary of body weight and caloric intake (term paper)

5. The control of drinking (water vs. alcohol) & salt appetite