

# City University of Hong Kong

## Information on a Course offered by Department of Applied Social Sciences with effect from Semester A in 2014/2015

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### Part I

Course Title: Biological Psychology

Course Code: SS3711

Course Duration: One semester

No. of Credit Units: 3

Level: B3

Medium of Instruction: English

Medium of Assessment: English

Prerequisites: (Course Code and Title): SS2023 Basic Psychology I or its equivalent

Precursors: (Course Code and Title): Nil

Equivalent Courses: (Course Code and Title): Nil

Exclusive Courses: (Course Code and Title): Nil

### Part II

#### 1. Course Aims:

This course aims to enable students to (1) understand the basic structure and functioning of the brain, and major research methods used in studying the relationship between brain and behavior, (2) analyze how the brain and physiology regulate different behaviors, and (3) generate new ideas and hypotheses via critical evaluation of current theories and research findings in biological psychology.

## 2. Course Intended Learning Outcomes (CILOs)

Upon successful completion of this course, students should be able to:

No.	CILOs	Weighting (if applicable)
1.	Describe the most fundamental structures and functions of the nervous system;	20%
2.	Understand research methods and techniques for studying the brain-behavior relationship;	20%
3.	Analyze the biological mechanisms of different behaviors; and	30%
4.	Evaluate critically research findings and generate testable hypotheses.	30%

## 3. Teaching and Learning Activities (TLAs)

*(Indicative of likely activities and tasks designed to facilitate students' achievement of the CILOs. Final details will be provided to students in their first week of attendance in this course)*

CILO No.	TLA1	TLA2	TLA3	TLA4	Hours / course (if applicable)
CILO 1	√				
CILO 2	√	√	√	√	
CILO 3	√	√	√	√	
CILO 4	√		√	√	

Describe the TLAs:

### TLA1 Lectures:

Major principles and research methods in biological psychology are described and explained, with an emphasis on (1) the relationship between brain structure and physiology on one hand, and behavior on the other, (2) evaluation of research findings in a critical manner.

### TLA2 Class Activities/Laboratories:

Students are asked to analyze the utility of specific research paradigms to address issues and questions relevant to biological psychology.

### TLA3 Group Project:

Students are required to generate and test hypotheses relevant to a designated topic in small groups. They are also required to collect and analyze the data, and write up the findings in a report. This assignment allows students to develop skills for (1) hypothesis formulation, (2) applying theories/concepts learned in class to write up a report of their project, and (3) evidence-based reasoning.

### TLA4 Presentation:

Students are required to lead and present findings of their group projects and share what they have learned with the class. They will be given the chance to demonstrate their ability to analyse findings reported in prior research and communicate their own findings effectively. This serves to stimulate critical thinking and enhance teamwork.

#### 4. Assessment Tasks/Activities

(Indicative of likely activities and tasks designed to assess how well the students achieve the CILOs. Final details will be provided to students in their first week of attendance in this course)

CILO No.	Type of Assessment Tasks/Activities	Weighting (if applicable) State CILOS in percentages	Remarks
CILO 1-3	AT1: Quizzes	50%	
CILO 2-4	AT2: Presentation	25%	
CILO 3-4	AT3: Project Report	25%	

Further description of ATs:

##### AT1: Quizzes (50%)

This is designed to assess the ability to understand, apply, and evaluate principles, methods, and research findings in biological psychology. These will consist of both multiple-choice and short-answer questions.

##### AT2: Presentation (25%)

This assignment is designed to assess students' competence in hypothesis formulation and critical evaluation of research findings in biological psychology. Students are required to present major aspects of their projects in a small group to the class. It can further assess students' communication skills and their positive attitudes towards the subject.

##### AT3: Project Report (25%)

This is for evaluating the ability to (1) generate testable hypotheses, (2) collect and analyze data, (3) critically evaluate research findings, and (4) apply theories/concepts learned in class to write up a report. Students work in small groups of 5 to collect and analyze data, and submit a group report of about 1500 words in length. This assignment serves to foster critical thinking on methodological and theoretical issues in biological psychology.

#### 5. Grading of Student Achievement:

Refer to Grading of Courses in the Academic Regulations.

Letter Grade	Grading criteria in relation to CILOs
A+ A A-	Superior grasp of knowledge related to the fundamental structures and functions of the nervous system, research methods in biological psychology, and biological mechanisms of selected behaviors; strong evidence of being able to analyze behavior from an evolutionary perspective; good capacity for evaluating research findings and generating testable hypotheses.
B+ B B-	Reasonable grasp of knowledge related to the fundamental structures and functions of the nervous system, research methods in biological psychology, and biological mechanisms of selected behaviors; evidence of being able to analyze behavior from an evolutionary perspective; capacity for evaluating research findings and generating testable hypotheses.
C+ C C-	Adequate understanding the fundamental structures and functions of the nervous system, research methods in biological psychology, and biological mechanisms of selected behaviors; minimal capacity for analyzing behavior from an evolutionary perspective.
D	Marginal understanding the fundamental structures and functions of the nervous system, research methods in biological psychology, and biological mechanisms of selected behaviors; little evidence of being able to analyze behavior from an evolutionary perspective.
F	Poor understanding of the fundamental structures and functions of the nervous system, research methods in biological psychology, and biological mechanisms of selected behaviors; poor evidence of being able to analyze behavior from an evolutionary perspective.

## Part III

### 1. Keyword Syllabus:

Nerve cell. Organization of nervous system. Brain and behaviour. Biological bases of fundamental psychological processes. Sleep and wakefulness. Physiology of the stress response. Mental Disorders. Learning & memory. Emotions. Social Behavior.

### 2. Recommended Reading:

#### Text(s)

#### Textbook

Pinel, J. P. J. (2011). *Biopsychology* (8<sup>th</sup> ed.). Singapore: Pearson.

#### Supplementary readings

Buunk, B. P., Angleitner, A., Oubid, V., & Buss, D. M. (1996). Sex differences in sexual jealousy in evolutionary and cultural perspective. *Psychological Science, 7*, 359-363.

Cohen, S., Doyle, W. J., Turner, R. B., Alper, C. M., & Skoner, D. P. (2003). Emotional style and susceptibility to the common cold. *Psychosomatic Medicine, 65*, 652-657.

Hamann, S. B., Ely, T. D., Hoffman, J. M., & Kilts, C. D. (2002). Ecstasy and agony: Activation of the human amygdala in positive and negative emotion. *Psychological Science, 13*, 135-141.

Kalat, J. W. (2009). *Biological psychology* (10<sup>th</sup> ed.). Singapore: Thomson.

Knecht, S., et al. (2002). Degree of language lateralization determines susceptibility to unilateral brain lesions. *Nature Neuroscience, 5*, 695-699.

Lai, J. C. L., Chong, A. M. L., Siu, O. T., Evans, P., Chan, C. L. W., & Ho, R. T. H. (2010). Humor attenuates the cortisol awakening response in healthy older men. *Biological Psychology, 84*, 375-380.

Lai, J. C. L., Evans, P., Ng, S. H., Chong, A. M. L., Siu, O. T., Chan, C. L. W., Ho, S. Y. M., Ho, R. T. H., Chan, P., & Chan, C. C. (2005). Optimism, positive affectivity, and salivary cortisol. *British Journal of Health Psychology, 10*, 467-484.

Mather, M., Canli, T., English, T., Whitefield, S., Wais, P., Ochsner, K., Gabrieli, J. D. E., & Carstensen, L. (2004). Amygdala responses to emotionally valenced stimuli in older and younger adults. *Psychological Science, 15*, 259-263.

Nannini, D. K., & Meyers, L. S. (2000). Jealousy in sexual and emotional infidelity: An alternative to the evolutionary explanation. *Journal of Sex Research, 37*, 117-122.

Stephoe, A., Cropley, M., Griffith, J., & Kirschbaum, C. (2000). Job strain and anger expression predict early morning elevations in salivary cortisol. *Psychosomatic Medicine, 62*, 286-292.