

國立清華大學課程大綱

科號 Course Number		學分 Credit		人數限制 Class Size	
中文名稱 Course Title	知覺心理學				
英文名稱 Course English Title	Perceptual Psychology				
任課教師 Instructor	姚在府 (Zai-Fu Yao)				
上課時間 Time		上課教室 Room			

課程簡述(必填) (最多 500 個中文字) 本欄位資料會上傳教育部課程網

Brief Course Description (required) (50-200 words if possible, up to 1000 letters)

本課程旨在於簡介人類感官、感覺及有意識的知覺所涉及的心理物理、神經和心理過程的重要概念、理論和相關研究及實驗。知覺心理學主要試圖了解人類感覺器官如何從周遭環境中擷取及利用這些資訊。本課程將會針對五種主要感官進行介紹及回顧，這些人類感官中，優勢感官為視覺及聽覺，因此本課程會聚焦在感知過程的探究及當前理論對於這些感官的理解。我們將描述人類視覺、聽覺、味覺、嗅覺和皮膚系統的基本現象和機制，並連結其潛在的生理機制、神經發育軌跡和後天感覺運動功能的發展。

The study of perceptual psychology aims to understand how sensory organs acquire information from the environment. This course emphasizes classic concepts, theories, and research regarding the psychophysical, neural, and mental processes involved in sensation and conscious perception. Every five major senses will be reviewed, emphasizing vision and hearing. The course will provide a survey of perceptual processes and an appraisal of current theories. The fundamental phenomena and mechanisms of the visual, auditory, gustatory, olfactory, and cutaneous systems will be described and related to underlying physiological processes, developmental trajectories, and following sensorimotor functions.

請輸入課程內容「中文暨英文關鍵字」至少 5 個, 每個關鍵字至多 20 個中文, 以半形逗點分隔 (必填)

Please fill in at least 5 course keywords (up to 40 letters for each keyword) and use commas to separate them. (required)

中文關鍵字: 知覺 · 感官 · 人類行為 · 感覺動作功能 · 意識

Keywords: Perception, Sensation, Human Behavior, Sensorimotor functions, Consciousness

課程大綱 Detailed Course Syllabus

● 課程說明(Course Description)

本課程主要介紹人類(其他物種)如何感知外在訊息和接收我們周圍的世界的相關實驗、觀念、理論與研究。課程初期探討人類長期以來就感知提出的哲學意識問題，並以目前的科學方法和技術嘗試回答這些問題的基礎原理，試圖將感覺器官的生理路徑、基礎知覺處理歷程及高層次的知識表徵進行建構。課程內容涵蓋各類感覺器官、皮膚感官(觸覺)、化學感官(嗅覺和味覺)、聽覺、視覺和時間感知。我們將從幾個跨領域角度探討感覺和知覺：如生理學、心理物理學、生態學、意志和計算神經科學。這種觀點的多樣性也讓我們能夠看到多感官知覺的複雜歷程及交互作用。該課程將主要採用講授形式，並進行盡可能在課堂間的增進較多討論。其中課堂參與在本課程中至關重要。本課程將有每週閱讀、簡答題、期中考試、期末考試及報告。

We will examine how humans (and, in some cases, other animals) sense and perceive the world around us. First, we will consider the philosophical questions humans have long posed about perception and study the methods and techniques scientists use to try to answer them. We will study the sensory pathways, fundamental perceptual processing, and higher-level meaning-making. We will cover the orienting senses, skin senses, chemical senses (smell and taste), audition, vision, and the perception of time. We will consider sensation and perception from several interdisciplinary perspectives: physiological, psychophysical, ecological, motivational, and computational neuroscience. This diversity of viewpoints also allows us to look at multisensory perceptual processes. The course will be mainly lecture format, with as much discussion as possible. There will be weekly readings, short-answer questions, and mid-term and final exams. Class participation will be critical to your success in the course.

● 指定用書(Text Books)

1. [書名 Title: Sensation and Perception 11/E 2022 (Asia Edition); 作者 Author: E. Bruce Goldstein, Laura Cacciamani; 出版社 Publisher: Cengage Learning]

● 參考書籍(References)

1.[書名 Title: Being You: A New Science of Consciousness; 作者 Author: Anil Seth; 出版社 Publisher: Dutton]

2.[書名 Title: Feeling & Knowing: Making Minds Conscious; 作者 Author: Antonio Damasio; 出版社 Publisher: Pantheon]

3.[書名 Title: Foundations of Sensation and Perception, 3rd Edition; 作者 Author: George Mather; 出版社 Publisher: Psychology Press]

● 教學方式(Teaching Method)

In this course, the student will study a scholarly paper every week on a designated topic with reading reflection or short answer questions to evaluate the understanding of the content. Instructors would deliver knowledge to students through lectures and direct instruction and aim to measure the results through testing and assessment.

● 教學進度(Syllabus)

週次 (Week)	課程大綱(Syllabus)	週次 (Week)	課程大綱(Syllabus)
1	導論 General Introduction	10	動覺 Motion
2	知覺與感知世界 Perception as a gateway to the world	11	聽覺系統 Auditory System
3	研究方法及原理 General principles & theoretical approaches	12	聽覺功能及感知 Basic Auditory Function and Perception of sound
4	神經編碼 The machinery: understanding the neural code	13	空間感知 Spatial Perception
5	視覺系統 The Visual System	14	觸覺 The Skin Senses
6	視覺功能 Basic Visual Function	15	化學感官: 嗅覺和味覺 Chemical senses: smell and taste
7	視知覺 Visual Perception	16	Multisensory processing in perception 多感官處理
8	距離及大小感知 Distance and Size Perception	17	意識 Consciousness
9	色覺 Color	18	期末考試 Final Exam

● 成績考核(Evaluation)

1.. 課堂表現(attendance and performance)25%: 學生課堂出席及互動、邏輯思辯能力。不定

期課堂週間進行指定閱讀反思作業(或簡答題)線上繳交。Interaction during class and constructive criticism in the way of logic. Reading reflections (short answer questions) are submitted online during each class and after completing a reading assignment.

2. 期中考試 (Midterm Exam)35%: 評量學生對於課程內容重點及觀念的理解 To evaluate students' understanding of the course content and main ideas.

3. 期末考試 (Final Exam)35%: 評量學生對於課程內容重點及觀念的理解 To evaluate students' understanding of the course content and main ideas.

4. 研究參與體驗 (Research participation for final grade) 5%: 學生可選擇實際參與研究，體驗人類行為的奧秘，或書面報告作為期末總成績 5%的成績 Students earn 5 percentage of their final grade either by participating in research studies or by studying for and writing an exam in lieu of participation. Students in this course is strongly encouraged to participate in 3 hours of research as part of their final grade. Option 1: Students will receive course credit, not money, for participating in the studies included in this participant pool. Option 2: Research opt-out exam: Students who choose not to participate in research can write an exam (please contact the instructor for more detail) as an alternative to participating in research. The deadline to fulfill this requirement is the last day of classes, Friday, June 16, 2023.

● 可連結之網頁位址 相關網頁(Personal Website): N/A