SS3720: NEUROPSYCHOLOGY

Effective Term
Semester A 2022/23

Part I Course Overview

Course Title
Neuropsychology

Subject Code
SS - Social and Behavioural Sciences
Course Number
3720

Academic Unit
Social and Behavioural Sciences (SS)

College/School
College of Liberal Arts and Social Sciences (CH)

Course Duration
One Semester

Credit Units
3

Level
B1, B2, B3, B4 - Bachelor's Degree

Medium of Instruction
English

Medium of Assessment
English

Prerequisites
SS1101 Basic Psychology or SS2023 Basic Psychology I; and SS3711 Biological Psychology

Precursors
Nil

Equivalent Courses
SS4711 Neuropsychology

Exclusive Courses
Nil

Part II Course Details

Abstract
This course aims to equip students with the knowledge of research methods and principles of human neuropsychology with an emphasis on the clinical foundation of the subject. Upon completion of the course, students are expected to (1) have

a general knowledge about the impact of the brain’ s structural or cognitive integrity on thoughts and behaviors, and (2) apply neuropsychological methods and thinking to address issues in real life and other areas of psychology.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Describe major structures of the brain from a neuroanatomical perspective;	20	x		
2	Understand methods of investigating the brain and principles of neuropsychological assessment;	20	x		
3	Analyze how different functional systems of the brain produce behaviors and the effects of brain damage in humans; and	30	x	x	
4	Create and test hypotheses by the application of theories and methods in neuropsychology.	30		x	x

A1: Attitude
Develop an attitude of discovery/innovation/creativity, as demonstrated by students possessing a strong sense of curiosity, asking questions actively, challenging assumptions or engaging in inquiry together with teachers.

A2: Ability
Develop the ability/skill needed to discover/innovate/create, as demonstrated by students possessing critical thinking skills to assess ideas, acquiring research skills, synthesizing knowledge across disciplines or applying academic knowledge to real-life problems.

A3: Accomplishments
Demonstrate accomplishment of discovery/innovation/creativity through producing /constructing creative works/new artefacts, effective solutions to real-life problems or new processes.

Teaching and Learning Activities (TLAs)

	TLAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Lectures	Major principles and research methods in human neuropsychology are described and explained, with an emphasis on (1) the relationship between structure and function, (2) critical evaluation of research findings, and (3) the process whereby theories and methods are integratively applied to generate new findings in neuropsychology.	1, 2, 3	

2	Class Activities/ Laboratories	Students are required to demonstrate their ability to analyze concepts and materials covered in lectures by studying and discussing hypothetical cases in small groups.	1, 3	
3	Group Project	Students are required to use an established paradigm in neuropsychology to collect data to test hypotheses relevant to human neuropsychology in small groups. They are also required to analyze the data and write up the findings in a report. This assignment allows students to develop skills for (1) cognitive testing relevant to neuropsychological assessment, (2) applying theories/concepts learned in class to write up the report, and (3) evidence-based reasoning. It provides an opportunity of self-discovery of knowledge.	2, 3, 4	
4	Group Presentation	Students are required to lead and present findings of their group projects and share what they have learned with the class. This serves to stimulate critical thinking as well as interest in the subject.	2, 3, 4	

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Project Report	2, 3, 4	35	
2	Tutorial Presentation	3, 4	15	
3	Final Examination			

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Assessment Rubrics (AR)

Assessment Task

1. Examination

Criterion

A 2-hour examination designed to assess knowledge of theories and principles in human neuropsychology.

Excellent (A+, A, A-)

Demonstrate excellent understanding of the subject matter.

Good (B+, B, B-)

Demonstrate good understanding of the subject matters, though missing some of the points.

Fair (C+, C, C-)

Demonstrate adequate understanding of the core of the subject matters.

Marginal (D)

Demonstrate limited understanding of the subject matter and can only recall limited content.

Failure (F)

Unambiguous indication of poor understanding of the subject matter.

Assessment Task

2. Project Report

Criterion

This is for evaluating the ability to collect and analyze data using a cognitive test relevant to neuropsychological assessment, and apply theories/concepts learned in class to write up a report. Students work in small groups to collect and analyze data and submit a report of about 1500 words in length.

Excellent (A+, A, A-)

Able to apply relevant principles and perspectives to analyse empirical evidence in human neuropsychology; demonstration of excellent understanding of relevant theories and principles in neuropsychological assessment; able to integrate different theories or evidence from different lines of research.

Good (B+, B, B-)

Able to apply relevant principles and perspectives to analyse empirical evidence in human neuropsychology; demonstration of good understanding of relevant theories and principles in neuropsychological assessment.

Fair (C+, C, C-)

Able to apply some relevant principles and perspectives to analyse empirical evidence in human neuropsychology; demonstration of an adequate understanding of the principles of neuropsychological assessment.

Marginal (D)

Apply limited and sometimes irrelevant principles and perspectives to analyse empirical evidence in human neuropsychology; demonstration of limited understanding of the principles of neuropsychological assessment.

Failure (F)

Unable to apply any relevant principles and perspectives to analyse empirical evidence in human neuropsychology; demonstration of poor understanding of the principles of neuropsychological assessment.

Assessment Task

3. Presentation

Criterion

This assignment is designed to assess competence in critical evaluation of evidence and theories of neuropsychological research. Students are required to present findings of their term projects in a small group to the class.

Excellent (A+, A, A-)

Demonstration of an excellent understanding of theories/concepts and methodologies relevant to the term project; effective use of relevant information in presentation; excellent team work and highly organized

Good (B+, B, B-)

Demonstration of a good understanding of theories/concepts and methodologies relevant to the term project; adequate use of relevant information in presentation; good team work and organized

Fair (C+, C, C-)

Demonstration of a certain degree of understanding of theories/concepts and methodologies relevant to the term project; minimal use of relevant information in presentation; adequate team work and organization

Marginal (D)

Demonstration of a limited understanding of theories/concepts and methodologies relevant to the term project; very limited use of relevant information in presentation; team work and organization need improvement

Failure (F)

Clear indication of a poor understanding of theories/concepts and methodologies relevant to the term project; use of irrelevant information in presentation; poor team work and organization

Part III Other Information

Keyword Syllabus

Brain structure, neuroanatomy, methodologies, attention, memory, language, executive function, emotion, brain damage, neuropsychological assessment, neural development, and the mind-brain problem.

Reading List

Compulsory Readings

	Title
1	Elias, L. J., & Saucier, D. M. (2006). Neuropsychology: Clinical and experimentalfoundations. Boston: Allyn & Bacon.
2	Banich, M. T., & Compton, R. J. (2013). Cognitive neuroscience, international edition (3rd ed.). Cengage: Singapore.

Additional Readings

	Title
1	Decety, J., & Cacioppo, J. T. (Eds.). (2015). The Oxford handbook of social neuroscience. Oxford University Press.
2	Kalat, J. W. (2016). Biological psychology (12th ed.). Singapore: Wadsworth.
3	Pinel, J. P. J. (2021). Biopsychology (10th ed.). Singapore: Pearson.