NS6001: RESEARCH PROJECT IN NEUROSCIENCE

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Research Project in Neuroscience

Subject Code

NS - Neuroscience

Course Number

6001

Academic Unit

Neuroscience (NS)

College/School

College of Biomedicine (BD)

Course Duration

Two Semesters

Credit Units

0-6

Level

P5, P6 - Postgraduate Degree

Medium of Instruction

English

Medium of Assessment

English

Prerequisites

Nil

Precursors

Nil

Equivalent Courses

Nil

Exclusive Courses

Nil

Part II Course Details

Abstract

The aim of the course is to give the students an opportunity to perform a research project within the field of neuroscience or related area under supervision according to an individual study plan that commonly written by the supervisor. With these training, the students will be able to write a research proposal and report as well as present the research results in a poster or ppt-based formatting.

Course Intended Learning Outcomes (CILOs)

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Perform a research project according to an individual study plan with independence, critical and creative thinking.	25	x		
2	Present project and results logically, able to answer questions.	20	x	x	
3	Formulate new scientific questions that came up during project performance.	20	x	x	x
4	Able to identify and solve the research problems.	15		x	x
5	Prepare a coherent dissertation with effective presentation of literature and analysis of results.	20		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.

Learning and Teaching Activities (LTAs)

	LTAs	Brief Description	CILO No.	Hours/week (if applicable)
1	Project Consultation	Consultation sessions will be made up via instructor and students to assist students in identifying appropriate project topics and to supervise the project progress	1, 2, 3, 5	
2	Individual works	Learn through individual work to help students develop the independent capability of formulating and solving problems via sufficient diligence.	1, 3, 4	

| 3 | Lab based research training | Participation in seminars, journal clubs or similar activities in the respective scientific environment | 1, 2, 3, 4, 5 | |

Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Project Proposal	3, 4	20	
2	Project Milestone Meetings	1, 3, 4	20	
3	Dissertation	1, 2, 3, 4, 5	40	
4	Oral Presentation	2	20	

Continuous Assessment (%)

100

Assessment Rubrics (AR)

Assessment Task

Project Proposal (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

The content, literature review and logic of the proposal (70%).
Hypothesis and scientific questions (30%).

Excellent

(A+, A, A-) Demonstrates a high level of knowledge and integration regarding content, literatures, and issues. Provide extensive with different possibilities with detailed explanations for hypothesis and scientific questions to be addressed.

Good

(B+, B, B-) Demonstrates a well-developed knowledge regarding content, literatures, and proposed topics. Provide clear hypothesis for scientific questions.

Fair

(C+, C, C-) Demonstrates s basic knowledge regarding content, literatures, and proposed topics. Provide hypothesis partially for scientific questions.

Marginal

(D) Demonstrates knowledge regarding content, literatures, and proposed topics but lack of logic and details.

Failure

(F) Lack ability to demonstrate the content, literatures, and proposed topics without logic and details.

Assessment Task

Project Milestone Meetings (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Show a professional attitude regarding time planning, collaboration, and the link between theoretical and practical knowledge.

Excellent

(A+, A, A-) High

Good
(B+, B, B-) Significant

Fair
(C+, C, C-) Moderate

Marginal
(D) Poor

Failure
(F) Not even reaching marginal levels

Assessment Task
Dissertation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
To be able to define the scientific concept, principles and research questions clearly and logical with integration. Able to present and analyze the data, discuss current limitations. Propose possible solutions and explanations will add additional mark.

Excellent
(A+, A, A-) Demonstrates a high level of understanding for the content with integration. Able to present and analyze a substantial amount of the data, discuss current limitations.

Good
(B+, B, B-) Demonstrates understanding of the content and develops deep thinking for discussed issues. Present and analyze the data correctly.

Fair
(C+, C, C-) Demonstrate a basic content. The discussed issues are easy to understand but lacking of critical data.

Marginal
(D) Demonstrates a correct content but poor writing without discussion.

Failure
(F) Do not submit the assay or not involved in any discussion. The content is poorly written without data.

Assessment Task
Oral Presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion
To be able to define the scientific concept, principles and research questions clearly and logical with integration. Able to present and analyze the data, discuss current limitations. Proper answer questions with extensive explanations will add additional mark.

Excellent
(A+, A, A-) High

Good
(B+, B, B-) Significant

Fair

(C+, C, C-) Moderate

Marginal

(D) Poor

Failure

(F) Not even reaching marginal levels

Assessment Task

Project Proposal (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

The content, literature review and logic of the proposal (70%).
Hypothesis and scientific questions (30%).

Excellent

(A+, A, A-) Demonstrates a high level of knowledge and integration regarding content, literatures, and issues. Provide extensive with different possibilities with detailed explanations for hypothesis and scientific questions to be addressed.

Good

(B+, B) Demonstrates a well-developed knowledge regarding content, literatures, and proposed topics. Provide clear hypothesis for scientific questions.

Marginal

(B-, C+, C) Demonstrates s basic knowledge regarding content, literatures, and proposed topics. Provide hypothesis partially for scientific questions

Failure

(F) Lack ability to demonstrate the content, literatures, and proposed topics without logic and details.

Assessment Task

Project Milestone Meetings (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Show a professional attitude regarding time planning, collaboration, and the link between theoretical and practical knowledge.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Assessment Task

Dissertation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

To be able to define the scientific concept, principles and research questions clearly and logical with integration. Able to present and analyze the data, discuss current limitations. Propose possible solutions and explanations will add additional mark.

Excellent

(A+, A, A-) Demonstrates a high level of understanding for the content with integration. Able to present and analyze a substantial amount of the data, discuss current limitations.

Good

(B+, B) Demonstrates understanding of the content and develops deep thinking for discussed issues. Present and analyze the data correctly.

Marginal

(B-, C+, C) Demonstrate a basic content. The discussed issues are easy to understand but lacking of critical data.

Failure

(F) Do not submit the assay or not involved in any discussion. The content is poorly written without data.

Assessment Task

Oral Presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

To be able to define the scientific concept, principles and research questions clearly and logical with integration. Able to present and analyze the data, discuss current limitations. Proper answer questions with extensive explanations will add additional mark.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Moderate

Failure

(F) Not even reaching marginal levels

Part III Other Information

Keyword Syllabus

No formal syllabus. Students will be required to undertake individually supervised research and dissertation preparation.

Reading List

Compulsory Readings

	Title
1	Individual reading list will be established in the study plan.

Additional Readings

	Title
1	Nil