# LT3235: EXPERIMENTAL APPROACHES TO LANGUAGE STUDIES

#### **Effective Term**

Semester B 2022/23

# Part I Course Overview

#### **Course Title**

Experimental Approaches to Language Studies

# **Subject Code**

LT - Linguistics and Translation

#### **Course Number**

3235

#### **Academic Unit**

Linguistics and Translation (LT)

#### 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**

LT2229 Fundamentals of Linguistics

#### Precursors

LT3209 Syntax, LT3211 Semantics, LT3212 Phonetics, LT3214 Phonology

# **Equivalent Courses**

Nil

#### **Exclusive Courses**

Nil

# **Part II Course Details**

#### **Abstract**

This course aims to introduce students to quantitative research paradigms and common experimental methods in language studies. Students will learn to formulate specific research questions and generate research predictions based on linguistic theories and models, select appropriate experimental methods, design suitable materials to control for variables and obtain valid data, and develop effective data analysis plans to address the research questions. Rationales and standard procedures of well-established data elicitation tasks for both language comprehension and production will be illustrated and demonstrated through representative studies in various linguistic subfields. Students will be familiarized with quantitative measures such as accuracy rate, type/token frequency, reaction time and event-related potential, as well as their applications and interpretations in offline and online techniques such as eye-tracking and EEG. Interactive tutorials, workshops and tours to the department's Language and Cognition Laboratory will be organized regularly to provide the students with hands-on experience with the experimental techniques.

# **Course Intended Learning Outcomes (CILOs)**

	CILOs	Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	To acquire basic concepts in experimental design		X	x	
2	To be familiar with standard procedures of common experimental tasks		X	Х	
3	To understand key variables and measures in linguistic experiments		X	Х	X
4	To be able to design an experiment to investigate interested topics in linguistics		X	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	Lecture		1, 2, 3, 4	3
		key concepts, theoretical		
		underpinnings, and		
		representative studies of		
		relevant experimental		
		methods, with in-class		
		activities to discuss and		
		explore topics on relevant		
		experimental methods		

2	Workshop	In-class workshops to demonstrate procedures of relevant experimental methods	1, 2, 3, 4	once or twice per semester
3	Lab tour	In-class tours to the department's Lab to familiarize with the experimental setup and apparatus	1, 2, 3, 4	once or twice per semester
4	Reading	Weekly reading tasks to enhance and consolidate learning	1, 2, 3, 4	2

# Assessment Tasks / Activities (ATs)

	ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	Assignments (2 written assignments to demonstrate understanding of relevant content in the lectures, workshops and tutorials)	1, 2, 3, 4	30	
2	Quiz (a quiz to test mastery of basic concepts and their application in experimentation)	1, 2, 3	30	
3	Research project (a written research proposal investigating a linguistic topic through an experimental design)	1, 2, 3, 4	40	

# Continuous Assessment (%)

100

# Examination (%)

0

# Assessment Rubrics (AR)

# **Assessment Task**

1. Assignments

# Criterion

Mastery and understanding of key concepts, theories, findings and procedures introduced in the lectures and tutorials

# Excellent (A+, A, A-)

Outstanding or generally outstanding mastery across items.

# Good (B+, B, B-)

Substantial mastery with high performance in some items and weaknesses in others.

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# Fair (C+, C, C-)

Satisfactory mastery in the majority of the items.

## Marginal (D)

Barely satisfactory mastery on many items.

#### Failure (F)

Unsatisfactory mastery on many items or failure to meet specified assessment requirements.

# **Assessment Task**

2. Quiz

#### Criterion

Mastery of basic concepts and their application in published experimental studies

### Excellent (A+, A, A-)

Outstanding or generally outstanding mastery across items.

#### Good (B+, B, B-)

Substantial mastery with high performance in some items and weaknesses in others.

#### Fair (C+, C, C-)

Satisfactory mastery in the majority of the items.

# Marginal (D)

Barely satisfactory mastery on many items.

#### Failure (F)

Unsatisfactory mastery on many items or failure to meet specified assessment requirements.

#### **Assessment Task**

3. Research project

#### Criterion

The ability to apply the concepts, theories, findings and procedures to a chosen research topic

# Excellent (A+, A, A-)

Outstanding or generally outstanding ability across items.

#### Good (B+, B, B-)

Substantial ability with high performance in some items and weaknesses in others.

#### Fair (C+, C, C-)

Satisfactory ability in the majority of the items.

# Marginal (D)

Barely satisfactory ability on many items.

#### Failure (F)

Unsatisfactory ability on many items or failure to meet specified assessment requirements.

# Part III Other Information

# **Keyword Syllabus**

Research questions, hypotheses and predictions; longitudinal, cross-sectional; offline, online; acceptability judgement task, truth-value judgement task, elicited repetition/production/narration, picture selection, sound discrimination, lexical decision, self-paced reading, eye-tracking and the visual world paradigm, EEG; accuracy rate, type/token frequency, reaction time, proportion of looks, event-related potential; experimental conditions, groups, variables, and baselines; priming; ethical considerations

# **Reading List**

# **Compulsory Readings**

	Title
1	Mackey, A., & Gass, S. M. (Eds.). (2011). Research methods in second language acquisition: A practical guide (Vol. 7). John Wiley & Sons.
2	De Groot, A. M., & Hagoort, P. (Eds.). (2017). Research methods in psycholinguistics and the neurobiology of language: A practical guide. John Wiley & Sons.

# **Additional Readings**

	Title
1	Nil