

LT5457: COMPUTATIONAL LEXICOGRAPHY

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Computational Lexicography

Subject Code

LT - Linguistics and Translation

Course Number

5457

Academic Unit

Linguistics and Translation (LT)

College/School

College of Liberal Arts and Social Sciences (CH)

Course Duration

One Semester

Credit Units

3

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

This course aims to introduce students to the theoretical and practical issues in the compilation of conventional dictionaries and computational lexicons, with particular focus on the use of computers and corpora in contemporary practice. Students

will acquire the techniques in discovering word usage and distinguishing word senses from corpus data as an essential step in composing a word entry in a dictionary. The construction of lexical resources especially semantic lexicons for machine use and methods for automatic lexical acquisition will also be discussed.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Critically compare the design and content of various kinds of printed/electronic dictionaries and lexical resources.	20	x	x	x
2	Competently describe and discuss the role of computers and corpora in contemporary dictionary making for human and/or machine use.	30	x		
3	Accurately analyse the different aspects of word meaning from corpus data.	30	x	x	x
4	Innovatively plan a small-scale lexicographic project and implement it by applying the techniques discussed in class.	20	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.

Learning and Teaching Activities (LTAs)

LTAs		Brief Description	CILO No.	Hours/week (if applicable)
1	1	Students will engage in lectures which explain the theoretical and practical issues in dictionary making, and the use of computers and corpora in lexicography and automatic lexical acquisition.	1, 2, 3, 4	
2	2	Students will participate in teacher-facilitated class/group discussions on assigned readings.	1, 2	

3	3	Students will work on hands-on exercises on analysing corpus data for definition writing and example selection, and using computational tools to extract lexical information from large corpora.	3, 4	
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Assessment Tasks / Activities (ATs)

ATs	CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	2 mini-group projects	1, 2, 3, 4	30
2	Quiz to assess students' mastery of concepts and techniques covered in class	1, 2, 3	30
3	Written report and class presentation for a small-scale group project	4	40

Continuous Assessment (%)

100

Assessment Rubrics (AR)**Assessment Task**

1. 2 mini-group projects (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Demonstrate involvement, and creativity in applying theory into practice concerning the subject matter.

Excellent

(A+, A, A-) Demonstrate excellent involvement, and creativity in applying theory into practice concerning the subject matter.

Good

(B+, B, B-) Demonstrate good involvement, and creativity in applying theory into practice concerning the subject matter.

Fair

(C+, C, C-) Demonstrate adequate involvement, and creativity in applying theory into practice concerning the subject matter.

Marginal

(D) Demonstrate little involvement, and creativity in applying theory into practice concerning the subject matter.

Failure

(F) Demonstrate virtually no involvement, and creativity in applying theory into practice concerning the subject matter.

Assessment Task

2. Quiz (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Demonstrate understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Excellent

(A+, A, A-) Demonstrate excellent understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Good

(B+, B, B-) Demonstrate good understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Fair

(C+, C, C-) Demonstrate adequate understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Marginal

(D) Demonstrate little understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Failure

(F) Demonstrate virtually no understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Assessment Task

3. Written report and class presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Demonstrate through presentation and report writing the ability to analyse and critically appreciate fundamental issues in computational lexicography.

Excellent

(A+, A, A-) Demonstrate through presentation and report writing excellent ability to analyse and critically appreciate fundamental issues in computational lexicography.

Good

(B+, B, B-) Demonstrate through presentation and report writing good ability to analyse and critically appreciate fundamental issues in computational lexicography.

Fair

(C+, C, C-) Demonstrate through presentation and report writing adequate ability to analyse and critically appreciate fundamental issues in computational lexicography.

Marginal

(D) Demonstrate through presentation and report writing little ability to analyse and critically appreciate fundamental issues in computational lexicography.

Failure

(F) Demonstrate through presentation and report writing virtually no ability to analyse and critically appreciate fundamental issues in computational lexicography.

Assessment Task

1. 2 mini-group projects (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Demonstrate involvement, and creativity in applying theory into practice concerning the subject matter.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not reaching marginal level

Assessment Task

2. Quiz (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Demonstrate understanding of the basic concepts of computational lexicography and ability to analyse related issues.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not reaching marginal level

Assessment Task

3. Written report and class presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Demonstrate through presentation and report writing the ability to analyse and critically appreciate fundamental issues in computational lexicography.

Excellent

(A+, A, A-) High

Good

(B+, B) Significant

Marginal

(B-, C+, C) Basic

Failure

(F) Not reaching marginal level

Part III Other Information

Keyword Syllabus

Dictionary types: monolingual/bilingual printed/electronic dictionaries, thesauri, computational lexicons, machine-readable vs machine-usable dictionaries

Word entries: lexical information, word meaning, polysemy and sense distinction, usage and examples, illustrations, semantic relations, multi-word expressions, idiomaticity, terminology, termbanks

Lexicographic practice: corpus-based lexicography, monolingual and parallel corpora, dictionary project, automatic lexical acquisition, dictionary access, cognitive aspects

Reading List

Compulsory Readings

Title	
1	Boguraev, B. and Briscoe, T. (Eds.) (1989) Computational Lexicography for Natural Language Processing. London: Longman.
2	Halliday, M.A.K., Teubert, W., Yallop, C. and Hermáková, A. (2004) Lexicology and Corpus Linguistics: An Introduction. London and New York: Continuum.
3	Jackson, H. (2002) Lexicography: An Introduction. London and New York: Routledge.

Additional Readings

Title	
1	Jackson, H. and Ze Amvela, E. (2000) Words, Meaning and Vocabulary: An Introduction to Modern English Lexicology. London and New York: Continuum.
2	Landau, S.I. (2001) Dictionaries: The Art and Craft of Lexicography. Cambridge University Press.
3	Ooi, V.B.Y. (1998) Computer Corpus Lexicography. Edinburgh University Press.
4	Sinclair, J. (Ed.) (1987) Looking Up: An Account of the COBUILD Project in Lexical Computing. London and Glasgow: Collins ELT.
5	李明、周敬華 (2001) 《雙語詞典的編纂》，上海：上海外語教育出版社。
6	章宜華 (2002) 《語義學與詞典釋義》，上海：上海辭書出版社。
7	陳炳超 (1991) 《辭書編纂學概論》，上海：復旦大學出版社。
8	Online Resources
9	ACL Anthology - http://aclweb.org/anthology-new
10	Sketch Engine - http://www.sketchengine.co.uk/
11	WordNet - http://wordnet.princeton.edu
12	《中国科技术语》 - https://www.term.org.cn/CN/1673-8578/home.shtml