

LT5628: HUMAN-MACHINE INTERACTIVE TRANSLATION

Effective Term

Semester B 2024/25

Part I Course Overview

Course Title

Human-Machine Interactive Translation

Subject Code

LT - Linguistics and Translation

Course Number

5628

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

Other Languages

Other Languages for Medium of Instruction

English supplemented by Chinese, in situations where English-Chinese translation is involved.

Medium of Assessment

Other Languages

Other Languages for Medium of Assessment

English supplemented by Chinese, in situations where English-Chinese translation is involved.

Prerequisites

Nil

Precursors

LT5603 Theory of Translation, LT5604 Translation Methodology, LT5411 Computational Linguistics

Equivalent Courses

CTL5628 Human-Machine Interactive Translation

Exclusive Courses

Nil

Part II Course Details**Abstract**

This course aims to study the general principles and advanced technologies of machine translation (MT) and computer(-aided) translation (CAT), with a focus on the aspect of human-machine interaction to enhance the productivity in the translation industry. Students will acquire a critical understanding of relevant concepts, methodologies and practical techniques of MT/CAT through hands-on training. Making use of these concepts and techniques, they will be able to develop creative solutions to translation tasks and conduct high-quality and high-speed professional translation.

Course Intended Learning Outcomes (CILOs)

CILOs		Weighting (if app.)	DEC-A1	DEC-A2	DEC-A3
1	Identify and apply the key concepts, principles and methodologies in human-machine interaction involved in the practical use of MT/CAT for professional translation.		x	x	
2	Apply the available technologies of MT/CAT for efficient and quality professional translation		x	x	x
3	Formulate strategies for efficient and effective use of various MT/CAT tools for language resource development for productivity enhancement		x	x	x
4	Evaluate MT/CAT systems and services by critiquing their translation quality and user-friendliness of facilities for human-machine interaction		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	Lectures towards the above outcomes to explain and illustrate the basic issues involved, for a practical solution for each of them	1, 2, 3, 4	2 hours

2	2	Readings of lecture notes and selected chapters from textbooks and the user guides of available MT systems	1, 2, 3, 4	
3	3	Tutorials to help students to resolve their problems involved in hand-on training; Question-answering sessions, exercises and practical work, discussion of assignments	1, 2, 3, 4	1 hour

Assessment Tasks / Activities (ATs)

ATs		CILO No.	Weighting (%)	Remarks (e.g. Parameter for GenAI use)
1	3-4 assignments on notions, principles and methodologies of MT/CAT and/or on translation practice using available MT/CAT system(s) (10% each);	1, 2, 3, 4	30	
2	Participation in class and presentation (10%);	1, 2, 3, 4	10	
3	Quizzes (optional) (10%);	1, 2, 3, 4	10	

Continuous Assessment (%)

50

Examination (%)

50

Examination Duration (Hours)

2

Additional Information for ATs

Exam: Two-hour examination on basic conceptions and know how about the MT/CAT system(s) in use. (CILO No. 1-4)

Assessment Rubrics (AR)**Assessment Task**

3-4 assignments (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Knowledge attitude, ability, creativity accomplishment and performance in completing and/or presenting demons and/or assignments

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B, B-) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Fair

(C+, C, C-) 1. Adequate knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate participation and fair performance.

Marginal

(D) 1. Basic familiarity with the subject matter. 2. Marginal ability to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Marginal participation and marginal performance.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

Participation in class and presentation (for students admitted before Semester A 2022/23 and in Semester A 2024/25 & thereafter)

Criterion

Knowledge attitude, ability, creativity accomplishment and performance in completing and/or presenting demons and/or assignments

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B, B-) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Fair

(C+, C, C-) 1. Adequate knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate participation and fair performance.

Marginal

(D) 1. Basic familiarity with the subject matter. 2. Marginal ability to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Marginal participation and marginal performance.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

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

Criterion

Marks

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B, B-) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Fair

(C+, C, C-) 1. Adequate knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate participation and fair performance.

Marginal

(D) 1. Basic familiarity with the subject matter. 2. Marginal ability to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Marginal participation and marginal performance.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

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

Criterion

Marks

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

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Marginal

(D) 1. Basic familiarity with the subject matter. 2. Marginal ability to apply linguistic and human- computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Marginal participation and marginal performance.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human- computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

3-4 assignments (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Knowledge attitude, ability, creativity accomplishment and performance in completing and/or presenting demons and/or assignments

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Marginal

(B-, C+, C) 1. Adequate basic knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair or marginal application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate or marginal participation and fair performance. ; Basic or marginal familiarity with the subject matter as a whole.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human- computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

Participation in class and presentation (for students admitted from Semester A 2022/23 to Summer Term 2024)

Criterion

Knowledge attitude, ability, creativity accomplishment and performance in completing and/or presenting demons and/or assignments

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Marginal

(B-, C+, C) 1. Adequate basic knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair or marginal application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate or marginal participation and fair performance. ; Basic or marginal familiarity with the subject matter as a whole.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human- computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

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

Criterion

Marks

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Marginal

(B-, C+, C) 1. Adequate basic knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair or marginal application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate or marginal participation and fair performance. ; Basic or marginal familiarity with the subject matter as a whole.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human- computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Assessment Task

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

Criterion

Marks

Excellent

(A+, A, A-) 1. Excellent knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Excellent, creative application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Very active participation and high performance.

Good

(B+, B) 1. Good knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Good application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Active participation and good performance.

Marginal

(B-, C+, C) 1. Adequate basic knowledge of major issues, concepts, ideas, principles and techniques in human-machine interactive translation. 2. Fair or marginal application of linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Adequate or marginal participation and fair performance. ; Basic or marginal familiarity with the subject matter as a whole.

Failure

(F) 1. Poor familiarity with the subject matter. 2. Poor ability or fail to apply linguistic and human-computer interaction knowledge to analysis and facilitation of basic tasks and key issues in translation. 3. Poor participation and poor performance.

Part III Other Information**Keyword Syllabus**

- a. Machine translation (MT) and Computer-aided translation (CAT) vs. fully-automatic and high-quality translation (FAHQT); CAT vs. human-aided machine-translation (HAMT).
- b. The “Proper place “ of human and machine in translation industry: Routine work for machine and creative work for human; Analysis of translation process and necessary tools, translation quality vs. productivity.
- c. Basic principles and practices of human-machine interactions in translation industry.
- d. Human-machine interaction for language resource development to enrich MT/CAT, towards a fuller utilization of language technologies.
- e. Practical training for hands-on experience of using available MT system(s) and CAT tools for high-quality and high-speed professional translation.
- f. Current development of MT/CAT technologies from the perspective of translation studies.

Reading List**Compulsory Readings**

Title	
1	Lecture notes/slides for the course
2	Selected papers/chapters on topics of human-machine interactive translation
3	Selected tutorials on key tasks of human-computer interaction in system implementation

Additional Readings

Title	
1	Relevant chapters in the recommended reading list or from online tutorial
2	Advanced and/or related topics on human-computer interaction in translation