



**FACULTY OF HEALTH SCIENCES AND SPORTS**  
**BACHELOR OF SCIENCE IN SPEECH-LANGUAGE THERAPY**  
**LEARNING MODULE OUTLINE**

Academic Year	2024/2025	Semester	1
Module Code	STSS2101		
Learning Module	Speech Science		
Pre-requisite(s)	Nil		
Medium of Instruction	Chinese/ English		
Credits	3	Contact Hours	45
Instructor	CHER-WEI HSU, Assistant Professor Rita Kou Sio Nga	Email	HSU : <a href="mailto:cwhsu@csmu.edu.tw">cwhsu@csmu.edu.tw</a> KOU : <a href="mailto:t1855@mpu.edu.mo">t1855@mpu.edu.mo</a>
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**MODULE DESCRIPTION**

This learning module discusses the research field of speech science and its clinical applications. It delves into the language interaction process between speakers and listeners through the communication framework known as the speech chain. Topics and discussion themes include the nature of sound, characteristics of speech, physical parameters of speech, vocal production system, articulatory system, auditory system, speech perception and cognitive processes, patterns of speech production and perception, as well as clinical applications of speech science.

On completion of this learning module, students will be able to:

M1.	Understand and be able to describe the organs and physiological mechanisms involved in speaking.
M2.	Understand and be able to analyze the physical characteristics of speech.
M3.	Understand the phenomena and processes of language production and perception.
M4.	Be able to contemplate theoretical models of speech production and perception.
M5.	Master the logic of speech science research and experimentation.
M6.	Apply knowledge of speech science to clinical contexts.



These ILOs aims to enable students to attain the following Programme Intended Learning Outcomes (PILOs):

PILOs	M1	M2	M3	M4	M5	M6
P1. To demonstrate understanding of knowledge in behavioural sciences, speech and hearing sciences, as well as speech and hearing disorders	✓	✓	✓	✓	✓	✓
P2. To demonstrate understanding of knowledge in assessment, treatment, counselling and other professional knowledge related to speech, language and swallowing impairment	✓	✓	✓	✓	✓	
P3. To employ professional techniques in assessment and intervention in language, speech and swallowing disorders	✓	✓	✓	✓	✓	✓
P4. To demonstrate effective communication and teamwork skills						✓
P5. To demonstrate a high standard of professional ethics and attitudes of holistic care, respect and compassion	✓			✓		✓
P6. To recognise the international trend of speech and hearing disorders and develop the spirits of social involvement and lifelong learning					✓	✓

#### MODULE SCHEDULE, COVERAGE AND STUDY LOAD

**CHER-WEI HSU Assistant Professor (30 Contact Hours) :**

Week	Content Coverage	Contact Hours
1	Introduction to Speech Science	2
2	Speech, Language, Thought The nature of Sound and Acoustics	4
3	Neurology system of speech	2
4	The respiratory system and speech	4
5	The phonation system and speech	4
6	The auditory system and speech	3
7	Processes of speech perception	2
8	Models of speech perception	4
9	Review and discussion	4
10	Final exam	1



**Rita Kou (15 Contact Hours) :**

Week	Content Coverage	Contact Hours
11	The articulatory system and speech	3
12	Feedback Mechanism and models of speech production	4
13	Acoustic features of vowels	2
14	Acoustic features of consonants	3
15	Acoustic features and speech perception of Cantonese Chinese	2
16	Midterm exam	1

**TEACHING AND LEARNING ACTIVITIES**

In this learning module, students will work towards attaining the ILOs through the following teaching and learning activities:

Teaching and Learning Activities	M1	M2	M3	M4	M5	M6
T1. Lecture and discussion	✓	✓	✓	✓		✓
T2. Topic presentation	✓	✓	✓	✓	✓	✓
T4. Test	✓	✓	✓	✓		

**ATTENDANCE**

Attendance requirements are governed by the Academic Regulations Governing Bachelor's Degree Programmes of the Macao Polytechnic University. Students who do not meet the attendance requirements for the learning module shall be awarded an 'F' grade.

**ASSESSMENT**

In this learning module, students are required to complete the following assessment activities:

Assessment Activities	Weighting (%)	ILOs to be Assessed
A1. Group work	10%	M5 M6
A2. Midterm exam	20%	M1 M2 M3 M4
A3. Final exam	70%	M1 M2 M3 M4

This learning module is graded on a 100 point scale, with 100 being the highest possible score and 50 being the passing score.

Any students scoring less than 35% of the total mark in the final examination will be given an "F" grade for the module even if the overall grade is 50% or higher.



The assessment will be conducted following the University's Assessment Strategy (see [www.mpu.edu.mo/teaching\\_learning/en/assessment\\_strategy.php](http://www.mpu.edu.mo/teaching_learning/en/assessment_strategy.php)). Passing this learning module indicates that students will have attained the ILOs of this learning module and thus acquired its credits.

#### MARKING SCHEME

Letter Grade	Grade Definition	Mark Ranges
A	Excellent	93-100
A-		88-92
B+	Very Good	83-87
B	Good	78-82
B-		73-77
C+	Satisfactory	68-72
C		63-67
C-		58-62
D+	Pass	53-57
D		50-52
F	Fail	0-49

#### REQUIRED READINGS

言語科學：理論語臨床應用，楊順聰校閱，心理出版社

#### REFERENCES

[insert text]

#### STUDENT FEEDBACK

At the end of every semester, students are invited to provide feedback on the learning module and the teaching arrangement through questionnaires. Your feedback is valuable for instructors to enhance the module and its delivery for future students. The instructor and programme coordinators will consider all feedback and respond with actions formally in the annual programme review.

#### ACADEMIC INTEGRITY

The Macao Polytechnic University requires students to have full commitment to academic integrity when engaging in research and academic activities. Violations of academic integrity, which include but are not limited to plagiarism, collusion, fabrication or falsification, repeated use of assignments and cheating in examinations, are considered as serious academic offenses and may lead to disciplinary actions. Students should read the relevant regulations and guidelines in the Student Handbook which is distributed upon the admission into the University, a copy of which can also be found at [www.mpu.edu.mo/student\\_handbook/](http://www.mpu.edu.mo/student_handbook/).



## CLASS SCHEDULE

CHER-WEI HSU Assistant Professor ( 30 Contact Hours ) :

No	Date	Time	Content Coverage
1	2024/09/02	09:00-11:00	Introduction to Speech Science (2)
2	2024/09/02 2024/09/02	11:00-13:00 14:30-16:30	Speech, Language, Thought The nature of Sound and Acoustics (4)
3	2024/09/02 2024/09/03	16:30-17:30 09:00-10:00	Neurology system of speech(2)
4	2024/09/03 2024/09/03	10:00-13:00 14:30-15:30	The respiratory system and speech(4)
5	2024/09/03 2024/09/04	15:30-17:30 09:00-11:00	The phonation system and speech(4)
6	2024/09/04 2024/09/05	11:00-13:00 14:30-15:30	The auditory system and speech(3)
7	2024/09/05	15:30-17:30	Processes of speech perception(2)
8	2024/09/05 2024/09/06	17:30-18:30 09:00-12:00	Models of speech perception (4)
9	2024/09/06 2024/09/06	12:00-13:00 14:30-17:30	Review and discussion(4)
10	2024/10/04	10:00-11:00	Final exam (1)

Rita Kou ( 15 Contact Hours ) :

No	Date	Time	Content Coverage
1	2024/09/13	14:30-17:30	The articulatory system and speech(3)
2	2024/09/13 2024/09/20	17:30-18:30 14:30-17:30	Feedback Mechanism and models of speech production (4)
3	2024/09/20 2024/09/23	17:30-18:30 11:00-12:00	Acoustic features of vowels(2)
4	2024/09/23	12:00-13:00 14:30-16:30	Acoustic features of consonants(3)
5	2024/09/24	16:30-18:30	Acoustic features and speech perception of Cantonese Chinese (2)
6	2024/09/27	10:00-11:00	Midterm exam (1)