

SPEECH & HEARING SCIENCE: NEUROSCIENCE OF COMMUNICATION, BS

for the degree of Bachelor of Science Major in Speech & Hearing Science, Neuroscience of Communication Concentration

The **Neuroscience of Communication** concentration provides an interdisciplinary understanding of the neurological systems that underlie human communication. Students will study the biological basis of communication in order to understand brain-behavior correlates of typical and disordered speech, language, and hearing function. In addition, students will benefit from faculty research that utilizes innovative technologies to study the structure and function of the sensory-motor systems that underlie human communication abilities. This concentration is intended to help prepare students for health and science-related careers, including medicine and neuroscience. In addition, undergraduates interested in pursuing careers as an audiologist or speech-language pathologist can combine this concentration with pre-certification requirements.

More information about the fields of speech-language pathology and audiology may be found on the American Speech-Language-Hearing Association's website.

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General Education: Students are advised to select their General Education course requirements from the University's approved list of courses (<https://courses.illinois.edu/gened/DEFAULT/DEFAULT/>) and to work in close consultation with their academic advisor to ensure graduation requirements are addressed.

Code	Title	Hours
Communication Skills		
Composition I		
RHET 105	Writing and Research	4-6
or CMN 111 & CMN 112	Oral & Written Comm I and Oral & Written Comm II	
Advanced Composition		
One course in Advanced Writing/Composition II from university approved Gen Ed list.		
Quantitative Reasoning I		
Choose one of the following:		
STAT 100	Statistics	
STAT 107	Data Science Discovery	
STAT 200	Statistical Analysis	
STAT 212	Biostatistics	
Quantitative Reasoning II		
One course from the university approved Gen Ed list.		
Humanities and the Arts		
Minimum of two courses from university approved Gen Ed list.		
Social and Behavioral Sciences		
Minimum of two courses from university approved Gen Ed list.		

Natural Sciences and Technology 6

Choose one from the following and one from the university approved Gen Ed list.

CHEM 101	Introductory Chemistry
CHEM 102 & CHEM 103	General Chemistry I and General Chemistry Lab I
CHEM 104 & CHEM 105	General Chemistry II and General Chemistry Lab II
CHEM 108	Chemistry, Everyday Phenomena
CHEM 202 & CHEM 203	Accelerated Chemistry I and Accelerated Chemistry Lab I
CHEM 204 & CHEM 205	Accelerated Chemistry II and Accelerated Chemistry Lab II
PHYS 101	College Physics: Mech & Heat
PHYS 102	College Physics: E&M & Modern
PHYS 123	Physics Made Easy
PHYS 140	How Things Work
PHYS 150	Physics of Societal Issues
PHYS 211	University Physics: Mechanics
PHYS 212	University Physics: Elec & Mag
PHYS 213	Univ Physics: Thermal Physics
PHYS 214	Univ Physics: Quantum Physics

Cultural Studies 9

One course from Western Cultures university approved Gen Ed list.

One course from Non-Western Cultures university approved Gen Ed list.

One course from U.S. Minority Cultures university approved Gen Ed list.

Foreign Language 0-12

May be satisfied if had three years of one non-English language in high school or completed the equivalent of three semesters of college level foreign language (through the intermediate level).

Total Hours 40-54

Speech and Hearing Science Professional Core Requirements

All students must complete a series of SHS core classes regardless of their area of concentration. Students are advised to work with the undergraduate academic advisor to ensure courses are taken in proper sequential order. One area of concentration (Speech-Language Pathology, Audiology, Neuroscience of Communication, or Cultural-Linguistic Diversity) must be declared prior to the senior year.

Code	Title	Hours
SHS 170	Intro Hum Comm Sys & Disorders	3
SHS 191	Freshmen Seminar	1
SHS 200	General Phonetics	3
SHS 240	Intro Sound & Hearing Science	3
SHS 300	Anat & Physiol Spch Mechanism	4
or LING 300	Anat & Physiol Spch Mechanism	
SHS 301	General Speech Science	4
or LING 303	General Speech Science	
SHS 320	Development of Spoken Language	3

SHS 385	Interpreting Clinical Research in Speech & Hearing Science	3
SHS 450	Intro Audiol & Hear Disorders	4
General Education Hours		40-54
Professional Core Hours		28
Concentration Hours		19
Electives		27-41
Total Hours		128

Electives

All students are encouraged to take electives inside and outside the department that will count towards the 128 required hours for graduation (the total number of electives students may take may vary with each individual). Students are encouraged to select electives that will complement their areas of interest and future goals. Areas listed below are only a sampling of possibilities; they are not to be considered as requirements and students are not limited to these choices. All students are responsible for addressing course pre-requisites, and course availability may vary.

Relevant areas include: Anthropology (ANTH), Communications (CMN), Kinesiology and Community Health (KIN, CHLH), Educational Organization and Leadership (EOL), Curriculum & Instruction (CI), Educational Policy Studies (EPS), Educational Psychology (EPSY), English (ENGL), English as a Second Language (ESL), Gender and Women’s Studies (GWS), Human Development and Family Studies (HDFS), Library and Information Science (LIS), Linguistics (LING), Neuroscience (NEUR), Psychology (PSYC), Recreation, Sport, & Tourism (RST), Rehabilitation Counseling (REHB), Special Education (SPED), Sociology (SOC), Social Work (SOCW). Additional areas to explore may include: courses in a foreign language beyond the completion of the University’s requirement, as well as additional courses in science, such as Biology (IB, MCB), Physics (PHYS), microcomputer applications (e.g. ACE), and courses in cultural studies.

Neuroscience of Communication Concentration

Code	Title	Hours
SHS 280	Communication Neuroscience	3
SHS 389	Neuroplasticity and Communication	3
SHS 427	Language and the Brain	3
SHS 470	Neural Bases Spch Lang	4

Students must also take 6 hours from the following specified electives:

Any Chemistry or Physics 100-level class		
IB 100	Biology in Today’s World	
PSYC 204	Intro to Brain and Cognition	
PSYC 216	Child Psych	
or EPSY 236	Child Development in Education	
PSYC 230	Perception & Sensory Processes	
PSYC 224	Cognitive Psych	
PSYC 248	Learning and Memory	
SHS 271	Communication and Aging	
SHS 291	Research Lab Experience in SHS ¹	
SHS 333		
SHS 375	Communication Partners and Health	
SHS 390	Individual Study ¹	
SHS 395	Honors Individual Study ¹	

SHS 473	Augmentative & Alternative Communication	
SHS 475	Prepracticum in SHS	
Total Hours		19

¹ No more than 3 credits from SHS 291, SHS 390 and SHS 395 may be counted toward the 6 credits of specified electives.

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This sample sequence is intended to be used only as a guide for degree completion. All students should work individually with their academic advisors to decide the actual course selection and sequence that works best for them based on their academic preparation and goals. The minimum number of hours required for the BS degree is 128. Enrichment programming such as study abroad, minors, internships, and so on may impact the structure of this four-year plan. Course availability is not guaranteed during the semester indicated in the sample sequence.

Students must fulfill their Language Other Than English requirement by successfully completing a third level of a language other than English. This may require up to three semesters of language depending on high school coursework or placement. See the corresponding section on the Degree General and Education Requirements (<http://catalog.illinois.edu/general-information/degree-general-education-requirements/>) page.

First Year

Fall Semester	Hours	Spring Semester	Hours
SHS 170		3 SHS 200	3
SHS 191		1 Language Other than English (3rd level)	3
Composition I or General Education Course		3 Composition I or General Education Course	3
General Education Course		3 General Education Course	3
General Education Course		3 General Education Course	3
Elective		3 Elective	1
		16	16

Second Year

Fall Semester	Hours	Spring Semester	Hours
SHS 280		3 SHS 240	3
SHS 320		3 SHS Specified Elective	3
General Education Course - choose Natural Science & Technology course from departmental list		3 General Education Course - choose Quantitative Reasoning I course from departmental list	3
General Education Course		3 General Education Course	3
General Education Course		3 General Education Course	3

Elective		1 Elective		1
		16	16	
Third Year				
Fall Semester	Hours		Spring Semester	Hours
SHS 300		4 SHS 301		4
SHS 450		4 SHS 385		3
General Education Course		3 SHS 389		3
Elective		3 Elective		3
Elective		2 Elective		3
		16	16	
Fourth Year				
Fall Semester	Hours		Spring Semester	Hours
SHS 470		3 SHS 427		3
SHS Specified Elective		3 Elective		3
Elective		3 Elective		3
Elective		3 Elective		3
Elective		3 Elective		3
Elective		1 Elective		1
		16	16	

Total Hours 128

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The Department of Speech and Hearing Science (<http://shs.illinois.edu/>)
 Speech and Hearing Science faculty (<https://ahs.illinois.edu/shs-directory/>)

College of Applied Health Sciences (<http://www.ahs.illinois.edu/>)
 College of Applied Health Sciences catalog page (<http://catalog.illinois.edu/schools/ahs/academic-units/>)