

SPEECH & HEARING SCIENCE: NEUROSCIENCE OF COMMUNICATION, BS

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

department website: <http://shs.illinois.edu/>
department faculty: <https://ahs.illinois.edu/shs-directory> (<https://ahs.illinois.edu/shs-directory/>)
college catalog page: <http://catalog.illinois.edu/schools/ahs/academic-units/>
college website: <http://www.ahs.illinois.edu/>

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 web site: <http://www.asha.org>.

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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		3
One course in Advanced Writing/Composition II from university approved Gen Ed list.		
Quantitative Reasoning I		3
Choose one of the following:		
STAT 100	Statistics	
STAT 107	Data Science Discovery	
STAT 200	Statistical Analysis	
STAT 212	Biostatistics	

Quantitative Reasoning II		3
One course from the university approved Gen Ed list.		
Humanities and the Arts		6
Minimum of two courses from university approved Gen Ed list.		
Social and Behavioral Sciences		6
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	Evidence-Based Practice in Communication Sciences and Disorders	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

PSYC 248	Learning and Memory	
SHS 271	Communication and Aging	
SHS 291	Research Lab Experience in SHS ¹	
SHS 333	Children with Neurodevelopmental Disorders Across Communication Contexts	
SHS 375	Comm Partners & Health	
SHS 390	Individual Study ¹	
SHS 395	Honors Individual Study ¹	
SHS 473	Augmentative & Alt Comm	
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.

Electives

All students are encouraged to take electives in 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), 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