

# BACHELOR OF SCIENCE WITH A MAJOR IN COGNITIVE SCIENCE OF LANGUAGE (STEM)

The cognitive science of language, also known as psycholinguistics, is the study of the interplay between language and the psychological/brain processes supporting it.

GW's bachelor of science in cognitive science of language program provides students with scientific skills in areas including research methods, data analysis and processing, and written and oral science communication, as well as focal knowledge in cognitive science, linguistics, neurosciences, psycholinguistics, and communication disorders. Using these skills students learn to generate hypotheses and test predictions about communication and language use, ranging from social (media) habits to individual differences in communication and language impairments. High-achieving students have opportunities to participate in undergraduate research (<https://psychology.columbian.gwu.edu/undergraduate-student-research/>) and external internships to further apply their knowledge.

The BS curriculum combines well with GW's minor in data science and/or certificate in digital technology.

This is a STEM designated program.

## ADMISSIONS

For information about the admission process, including deadlines, visit the Office of Undergraduate Admissions website (<https://undergraduate.admissions.gwu.edu/>). Applications can be submitted via the Common Application (<https://go.gwu.edu/commonapp/>).

Supporting documents not submitted online should be mailed to:

Office of Undergraduate Admissions  
The George Washington University  
800 21st St NW Suite 100  
Washington, DC 20052

For questions visit [undergraduate.admissions.gwu.edu/contact-us](https://undergraduate.admissions.gwu.edu/contact-us) (<http://undergraduate.admissions.gwu.edu/contact-us/>).

## REQUIREMENTS

The following requirements must be fulfilled:

The general requirements stated under Columbian College of Arts and Sciences, Undergraduate Programs (<http://bulletin.gwu.edu/arts-sciences/#degreeregulationstext>).

Coursework for the major:

Code	Title	Credits
<b>Introductory STEM courses</b>		
Biological sciences		
The following two courses (8 credits):		
BISC 1111	Introductory Biology: Cells and Molecules	
BISC 1112	Introductory Biology: The Biology of Organisms	
Mathematics		
One or both of the following courses (3 or 6 credits):		
MATH 1231	Single-Variable Calculus I	
MATH 1232	Single-Variable Calculus II	
Physical sciences		
Two courses (8 credits), one in Chemistry (CHEM) and one in Physics (PHYS), selected from the following:		
CHEM 1111	General Chemistry I	
CHEM 1112	General Chemistry II	
PHYS 1011	General Physics I	
PHYS 1012	General Physics II	
PHYS 1021	University Physics I	
PHYS 1022	University Physics II	
PHYS 1025	University Physics I with Biological Applications	
PHYS 1026	University Physics II with Biological Applications	
<b>Major requirements</b>		
Quantitative methods		
One or two courses (3 or 6 credits) selected from the following:		
CSCI 1012	Introduction to Programming with Python	
DATS 2102	Data Visualization for Data Science	
DATS 2103	Data Mining for Data Science	
DATS 2104	Data Warehousing for Data Science	
STAT 1053	Introduction to Statistics in Social Science	
or STAT 1127	Statistics for the Biological Sciences	
Gateway courses		

The following six courses (18 credits):

ANTH 1004	Language in Culture and Society
or SLHS 1071	Foundations of Human Communication
or SLHS 1071W	Foundations of Human Communication

DATS 1001	Data Science for All
-----------	----------------------

SLHS 2101	Research Methods
-----------	------------------

SLHS 2105	Anatomy and Physiology for Speech, Language, and Hearing
-----------	--

SLHS 2107	Acoustics
-----------	-----------

SLHS 2106	Neural Substrates of Speech, Language, and Hearing
-----------	--

Psycholinguistics

The following four courses (11 credits):

SLHS 2104W	Speech and Language Disorders
------------	-------------------------------

SLHS 3108	Introduction to Audiology
-----------	---------------------------

SLHS 3131	Language Acquisition and Development
-----------	--------------------------------------

SLHS 3136	Phonetics
-----------	-----------

Cognitive neuroscience

One to three courses (3 to 9 credits) selected from the following:

ANTH 3413	Evolution of the Human Brain
-----------	------------------------------

PSYC 2015	Biological Psychology
-----------	-----------------------

PSYC 3118	Neuropsychology
-----------	-----------------

PSYC 3122	The Cognitive Neuroscience
-----------	----------------------------

SLHS 3116	Brain and Language
-----------	--------------------

Cognitive science

One or two courses (3 or 6 credits) selected from the following:

ANTH 3601	Language, Culture, and Cognition
-----------	----------------------------------

PHIL 2045	Introduction to Logic
-----------	-----------------------

PSYC 2014	Cognitive Psychology
-----------	----------------------

SLHS 1072	Culturally Responsive Practices in Human Communication.
-----------	---

SLHS 1084	Perspectives in Deaf Culture
-----------	------------------------------

SLHS 2135	Language: Structure, Meaning, and Use
-----------	---------------------------------------

SLHS 3117	Hearing and Perception
-----------	------------------------

SLHS 3133	Autism
-----------	--------

Advanced electives

One or two courses (3 or 6 credits) selected from the following:

ANTH 3603	Psycholinguistics
-----------	-------------------

or LING 3603	Psycholinguistics
--------------	-------------------

or SLHS 3603	Psycholinguistics
--------------	-------------------

PHIL 3121	Symbolic Logic
-----------	----------------

PSYC 3119	Cognitive Science in the District
-----------	-----------------------------------

SLHS 3109	Auditory Learning and Aural Rehabilitation
-----------	--

Advanced lab or clinical experience

One course (3 credits) selected from the following:

ANTH 3602	Ethnographic Analysis of Speech
-----------	---------------------------------

ANTH 3995	Undergraduate Research
-----------	------------------------

PSYC 4106W	Research Lab in Sensation and Perception
------------	--

PSYC 4107W	Research Lab in Cognitive Neuroscience
------------	--

PSYC 4591	Independent Research
-----------	----------------------

SLHS 4119	Principles and Methods in Speech-Language Pathology
-----------	---

SLHS 4196	Independent Study
-----------	-------------------

Capstone seminar (3 credits)

SLHS 4118W	Senior Research Seminar in Communication Sciences and Disorders
------------	---