

# Scientific and Technical Writing, B.S.

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## Degree Offered

- Bachelor of Arts in Professional Writing and Editing
- Bachelor of Sciences in Scientific and Technical Writing

Students may not earn both a B.A. and a B.S. in Writing Studies.

## Nature of the Program

With a BA or BS degree in Writing Studies, you will learn to translate complex information into clear prose for diverse audiences and analyze how information flows through organizational structures. As you apply these skills in a capstone internship with a local business, non-profit, or government agency, you will see your writing come alive.

Regardless of what subjects you're interested in and what careers you're considering post-graduation, the BA degree in Professional Writing and Editing or the BS degree in Scientific and Technical Writing will improve the writing and communication skills that employers value.

When choosing between the BA degree in Professional Writing and Editing or the BS degree in Scientific and Technical Writing, individuals typically consider the path that most closely matches their future plans. The BA degree is well suited to students who are interested in the needs of an increasingly global society and want to make a difference as writers or editors for nonprofits, government agencies, and other professions. The BA's emphasis on rhetorical, cultural, and linguistic competencies also prepares students for advanced academic work in a range of fields, including the humanities and legal studies. The BS degree is well suited to students who have an interest in science, healthcare, or technology and want to pursue professional careers where they convey complex topics clearly to the public. The BS degree also prepares students for the writing and research skills they need for advanced academic work.

Students who earn a degree in the Eberly College of Arts and Sciences must complete the University requirements, the College requirements for their specific degree program, and their major requirements. Both the BA in Professional Writing and Editing and the BS in Scientific and Technical Writing are SpeakWrite (<https://speakwrite.wvu.edu/>) certified programs.

## 4+1 Option

Qualified students pursuing a BA or BS in Writing Studies may earn up to 12 hours of *graduate credit* during their junior and senior year. These credits can count toward the master's program in Professional Writing and Editing, enabling them to complete their M.A. in one year following their undergraduate degree.

## Minors

All students have the possibility of earning one or more minors; follow the link for a list of all available minors and their requirements (<http://catalog.wvu.edu/undergraduate/minors/>). Please note that students may not earn a minor in their major field.

## Publications

*Calliope*, a publication of WVU student writing, is sponsored by the Department of English and the English Honorary and Club.

*Mountaineer Undergraduate Research Review*, publishes outstanding research articles, literature reviews, and policy briefs principally authored by undergraduates of any major at West Virginia University. MURR is a student-led publication housed within the West Virginia University Office of Undergraduate Research.

*Resilience* is a digital, peer-reviewed journal of the Environmental Humanities. It provides a forum for scholars from across the humanities disciplines to speak to one another about their shared interest in environmental issues and to engage in an evolving conversation about what the humanities contributes to living and thinking sustainably in a world of dwindling resources.

## Admissions

- First-Time Freshmen are admitted directly into the major.
- Students transferring from another major at WVU must have a 2.0 GPA in all ENGL classes taken and a 2.0 overall GPA.
- Students transferring from another institution must have a 2.0 GPA in all ENGL classes taken and a 2.0 overall GPA.

## ADMISSION REQUIREMENTS 2024-2025

The Admission Requirements above will be the same for the 2024-2025 Academic Year.

**Major Codes:**

B.S. Scientific and Technical Writing = **14F5**B.A. Professional Writing and Editing = **14F4**

## General Education Foundations

Please use this link to view a list of courses that meet each GEF requirement. (<http://registrar.wvu.edu/gef/>)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

Code	Title	Hours
<b>General Education Foundations</b>		
F1 - Composition & Rhetoric		3-6
ENGL 101 & ENGL 102 or ENGL 103	Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research Accelerated Academic Writing	
F2A/F2B - Science & Technology		4-6
F3 - Math & Quantitative Reasoning		3-4
F4 - Society & Connections		3
F5 - Human Inquiry & the Past		3
F6 - The Arts & Creativity		3
F7 - Global Studies & Diversity		3
F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)		9
Total Hours		31-37

Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

## Degree Requirements

Students must complete WVU General Education Foundations requirements, College B.S. requirements, major requirements, and electives to total a minimum 120 hours. For complete details on these requirements, visit the B.S. Degrees tab on the Eberly College of Arts and Sciences (<http://catalog.wvu.edu/undergraduate/eberlycollegeofartsandsciences/#CollegeRequirement>) page.

## Departmental Requirements for the B.S. in Scientific and Technical Writing

- **Capstone Requirement:** The university requires the successful completion of a Capstone course. Scientific and Technical Writing majors must complete three credits of WRIT 491A to meet this requirement.
- **Writing and Communication Requirement:** The Scientific and Technical Writing B.S. students fulfill the Writing and Communication Skills requirement by completing ENGL 101 and ENGL 102 (or ENGL 103), and two additional **SpeakWrite Certified Courses™**.
- **Calculation of GPA in the major:** Students must earn a grade of C- or better in all courses that are counted toward the STW Major Requirement plus. If a course is repeated, all attempts will be included in the calculation of the GPA unless the course is eligible for a D/F repeat.
- **Benchmark Expectations:** For details, go to the Scientific and Technical Writing Degree Progress tab (p. 5).

## Curriculum Requirements

Code	Title	Hours
	University Requirements	67
	ECAS B.S. Requirements	23
	Scientific and Technical Writing Requirements	30
Total Hours		120

## University Requirements

Code	Title	Hours
	General Education Foundations (GEF) 1, 2, 3, 4, 5, 6, 7, and 8 (31-37 Credits)	
	Outstanding GEF Requirements 1, 4, 5, 6 and 7	18
	WRIT 191	1

General Electives	48
Total Hours	67

## ECAS Bachelor of Science Requirements

Code	Title	Hours
<b>MATHEMATICS REQUIREMENT:</b>		<b>3</b>
Select one option for a minimum of three credits:		
MATH 150	Applied Calculus	
MATH 153 & MATH 154	Calculus 1a with Precalculus and Calculus 1b with Precalculus	
MATH 155	Calculus 1	
<b>SCIENCE REQUIREMENT</b>		<b>20</b>
Students must complete 6-8 credits in the three areas of their choice for a minimum of 21 credits		
AREA I - Biology		
BIOL 115 & 115L	Principles of Biology and Principles of Biology Laboratory *	
BIOL 117 & 117L	Introductory Physiology and Introductory Physiology Laboratory	
AREA II - Chemistry		
Select one group:		
CHEM 111 & 111L & CHEM 112 & CHEM 112L	Survey of Chemistry 1 and Survey of Chemistry 1 Laboratory and Survey of Chemistry 2 and Survey of Chemistry 2 Laboratory	
CHEM 115 & 115L & CHEM 116 & CHEM 116L	Fundamentals of Chemistry 1 and Fundamentals of Chemistry 1 Laboratory and Fundamentals of Chemistry 2 and Fundamentals of Chemistry 2 Laboratory	
Area III - Computer Science		
CS 110 & CS 111	Introduction to Computer Science and Introduction to Data Structures	
Area IV - Geology and Geography		
GEOL 101 & 101L	Planet Earth and Planet Earth Laboratory	
AND select one of the following		
GEOL 103 & 103L	Earth Through Time and Earth Through Time Laboratory	
GEOL 203	Physical Oceanography	
GEOL 230	Fossils and Evolution	
Area V - Mathematics and Statistics		
MATH 156	Calculus 2	
and select one additional course:		
MATH 251 or STAT 211 or STAT 215	Multivariable Calculus Elementary Statistical Inference Introduction to Probability and Statistics	
or		
STAT 211	Elementary Statistical Inference	
and select an additional course:		
STAT 312 or STAT 331 or STAT 421	Intermediate Statistical Methods Sampling Methods Statistical Analysis System (SAS)	
Area VI - Physics		
Select one of the following pairs:		

PHYS 101 & 101L & PHYS 102 & PHYS 102L	Introductory Physics 1 and Introductory Physics 1 Laboratory and Introductory Physics 2 and Introductory Physics 2 Laboratory	
PHYS 111 & 111L & PHYS 112 & PHYS 112L	General Physics 1 and General Physics 1 Laboratory and General Physics 2 and General Physics 2 Laboratory	
Total Hours		23

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Students who complete BIOL 101, 101L, 102, 102L may substitute this sequence for BIOL 115 & 115L. Under this option, students must satisfactorily complete five courses to meet the Area I-Biology requirement for the Bachelor of Science degree: BIOL 101, 101L, 102, 102L & BIOL 117 and 117L.

## Scientific and Technical Writing Major Requirements

Code	Title	Hours
<b>CORE COURSES</b>		<b>12</b>
WRIT 202	Introduction to Writing Studies	
WRIT 301	Writing Theory and Practice	
WRIT 302	Editing	
WRIT 304 or WRIT 305	Business and Professional Writing Technical Writing	
<b>TOPICAL AREA</b>		<b>6</b>
Select one area		
Science and Health		
WRIT 407	The Writing of Health and Medicine	
Public Writing		
ENGL 403 & WRIT 450	Proposal and Grant Writing and Intro to Forensic Linguistics	
Personalized Topic		
Select 2 ENGL or WRIT courses in consultation with an adviser		
<b>UPPER-DIVISION ELECTIVES *</b>		<b>9</b>
Select three ENGL or WRIT courses at the 300 level not taken for the Core or Topical requirements		
WRIT 303	Multimedia Writing	
WRIT 304	Business and Professional Writing	
WRIT 305	Technical Writing	
WRIT 306	Topics in Digital Humanities	
ENGL 309	Approaches to Teaching Composition	
ENGL 312	Creative Writing Workshop: Fiction	
ENGL 314	Creative Writing Workshop: Non-Fiction	
ENGL 321	History of the English Language	
ENGL 329	Topics in English Language	
ENGL 331	Topics in Genre	
ENGL 338	Environmental Criticism	
ENGL 383	Introduction to Cultural Studies	
WRIT 407	The Writing of Health and Medicine	
WRIT 408	Rhetoric and Science	
WRIT 450	Intro to Forensic Linguistics	
WRIT 460	Appalachian Englishes	
<b>CAPSTONE</b>		<b>3</b>
WRIT 491A	Professional Field Experience	
Total Hours		30

\*  
Students may select up to 3 credits outside ENGL or WRIT courses with permission from a WRIT adviser.

## Plan of Study

### First Year

Fall	Hours	Spring	Hours
ENGL 101 (F1 Course 1)		3 ENGL 102 (F1 Course 2)	3
ENGL 191		1 ECAS B.S. Requirement First Area Course 2 (F8)	4
ECAS B.S. Req. First Area Course 1 (F2A)		4 MATH 150 (ECAS Math req.; F3)	3
GEF 4		3 F5	3
General Elective		4 General Elective	2
		15	15

### Second Year

Fall	Hours	Spring	Hours
ECAS B.S. Req. Second Area Course 1 (F8)		3 ECAS B.S. Req. Second Area Course 2 (F8)	3
WRIT 202		3 F6	3
WRIT 305 or 304		3 ECAS Global Requirement (F7)	3
General Elective		3 WRIT 301	3
General Elective		3 WRIT 302	3
		15	15

### Third Year

Fall	Hours	Spring	Hours
ECAS B.S. Req. Third Area Course 1		3 Eberly B.S. Req Third Area Course 2	3
Topical Area Course 1		3 WRIT 491A	3
Upper-Division Elective Course 1		3 Topical Area Course 2	3
Upper-Division Elective Course 2		3 Upper-Division Elective Course 3	3
General Elective		3 General Elective	3
		15	15

### Fourth Year

Fall	Hours	Spring	Hours
General Elective		3 General Elective	3
General Elective		3 General Elective	3
General Elective		3 General Elective	3
General Elective		3 General Elective	3
General Elective		3 General Elective	3
		15	15

Total credit hours: 120

## Degree Progress

- At the end of their second semester in the program, students will have completed ENGL 101, 102, 191, 199, and WRIT 202.
- After three semesters students will have completed 9 additional credits of WRIT courses above WRIT 202.
- After four semesters in the program, students will have completed 12 additional credits in WRIT.
- All majors must meet with an English department adviser each semester
- All majors must meet with an English department adviser to select electives appropriate for their degree and career interests.

## Major Learning Outcomes

### SCIENTIFIC AND TECHNICAL WRITING

Upon successful completion of the BS degree in Scientific and Technical Writing, majors will be able to demonstrate the following learning outcomes.

- Students will identify, understand, and explain the major concepts of Scientific and Technical Writing.
- Students will develop rhetorical literacies and apply these to linguistic structures and genre conventions across diverse cultures and contexts.

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- Students will develop the functional literacies related to digital and print writing and editing and apply them to contexts and audiences appropriately.
- Students will understand scientific principles relevant to the field as they locate, evaluate, and appropriately apply primary and secondary research materials from a variety of sources (e.g., scholarly and professional sources as well as informal print, visual, or digital sources).
- Students will demonstrate the critical literacies, problem-solving skills, and professional behaviors that make a strong scientific and technical writer across genres and media (print, visual, aural, digital).