Twin Cities Campus

Technical Writing and Communication B.S.

Writing Studies Department

College of Liberal Arts

- Program Type: Baccalaureate
- Requirements for this program are current for Spring 2021
- Required credits to graduate with this degree: 120
- Required credits within the major: 52
- Degree: Bachelor of Science

The Department of Writing Studies offers a B.S. in Technical Writing and Communication (TWC).

Technical writing and communication creates a bridge between experts and various audiences who put knowledge into practice. The TWC major offers students who enjoy writing the opportunity to use written, digital, oral, and visual communication theory and practice as it happens in the current workplace. Students will study writing and editing, rhetorical theory, visual rhetoric and document design, usability, and technical communication practices.

TWC majors examine how communication is a complex process that involves both the robust principles of audience, persuasion, clarity, accuracy, and ethical integrity, and a command of the knowledge of scientific and technical topics that one communicates.

Organizations, both for profit and non-profit, demand people who can communicate ideas or concepts clearly, ethically, and with authority. At the core of these communication skills is a knowledge of writing and how it creates understandings with particular audiences. TWC graduates work in many areas, including health, business, science, law, and technology. Technical writer, usability specialist, user experience designer, and content strategist are just a few of the careers are just a few of the titles our graduates hold.

Why major in TWC?

1. TWC majors are in demand and sought after by employers. The US Bureau of Labor Statistics predicts technical communication as a career will grow faster than average over the next decade. And US News and World Report lists technical writer in the top 100 jobs for 2020!
2. Our advisory board of alumni and industry professionals offers networking, mentorship, internship, and job opportunities.
3. Students learn to use rhetoric as a powerful communication tool.
4. Students become familiar with current writing and web technologies.
5. TWC pairs well with other majors such as political or health science.
6. Sub-plans enable students to focus their writing skills in one of four emphasis areas: information technology and design, biological and health sciences, legal discourse and public policy, or environmental science.

For more information, visit z.umn.edu/writugrad.

Program Delivery

This program is available:

- via classroom (the majority of instruction is face-to-face)

Admission Requirements

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

General Requirements

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the liberal education requirements.Required courses for the major or minor in which a student receives a D grade (with or without plus or minus) do not count toward the major or minor (including transfer courses).

Program Requirements

Equivalent transfer courses are accepted in all course groups except Core Courses.

At least 22 upper division credits in the major must be taken at the University of Minnesota Twin Cities campus.

Students may earn a BS, a minor, or a certificate in technical writing and communication, but none of these may be combined.

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All incoming CLA freshmen must complete the First-Year Experience course sequence.

All students must complete a capstone in at least one CLA major. The requirements for double majors completing the capstone in a different CLA major will be clearly stated. Students must also complete all major requirements in both majors to allow the additional capstone to be waived. Student completing an addition degree must complete the capstone in each degree area.

Foundation Course

Take exactly 1 course(s) totaling exactly 3 credit(s) from the following:

- WRIT 1001 - The Art of Explaining Things: Introduction to Technical Writing and Communication (3.0 cr)

Core Courses

Take exactly 6 course(s) totaling exactly 19 credit(s) from the following:

- WRIT 3221W - Communication Modes and Methods [WI] (3.0 cr)
- WRIT 3441 - Editing, Critique, and Style (3.0 cr)
- WRIT 3671 - Visual Rhetoric and Document Design (3.0 cr)
- WRIT 3701W - Rhetorical Theory for Writing Studies [WI] (3.0 cr)
- WRIT 3562W - Technical and Professional Writing [WI] (4.0 cr)
  or WRIT 3562V - Honors: Technical and Professional Writing [WI] (4.0 cr)
- WRIT 4501 - Usability and Human Factors in Technical Communication (3.0 cr)
  or WRIT 4662W - Writing With Digital Technologies [WI] (3.0 cr)

Electives

Take exactly 4 course(s) totaling exactly 12 credit(s) from the following:

Oral, Written, Visual, and Digital Communication

Take exactly 2 course(s) totaling exactly 6 credit(s) from the following:

- WRIT 3029W - Business and Professional Writing [WI] (3.0 cr)
- WRIT 3101W - Writing Arguments [WI] (3.0 cr)
- WRIT 3102W - Public Writing [CIV, WI] (3.0 cr)
- WRIT 3244W - Critical Literacies: How Words Change the World [AH, DSJ, WI] (3.0 cr)
- WRIT 3257 - Technical and Professional Presentations (3.0 cr)
- WRIT 3672W - Project Design and Development [WI] (3.0 cr)
- WRIT 3751W - Seminar: Theory and Practice of Writing Consultancy [WI] (3.0 cr)
- WRIT 3896 - Internship in Technical Writing and Communication (3.0 cr)
- WRIT 4573W - Writing Proposals and Grant Management [WI] (3.0 cr)
- WRIT 4662W - Writing With Digital Technologies [WI] (3.0 cr)

Science, Technology, and Society

Take exactly 2 course(s) totaling exactly 6 credit(s) from the following:

- WRIT 3152W - Writing on Issues of Science and Technology [WI] (3.0 cr)
- WRIT 3315 - Writing on Issues of Land and the Environment [AH, DSJ] (3.0 cr)
- WRIT 3371W - Technology, Self, and Society [TS, WI] (3.0 cr)
- WRIT 3381W - Writing and Modern Cultural Movements [AH, WI] (3.0 cr)
- WRIT 3405W - Humanistic Healthcare and Communication [AH, WI] (3.0 cr)
- WRIT 3577W - Rhetoric, Technology, and the Internet [TS, WI] (3.0 cr)
- WRIT 4431W - Science, Technology, and the Law [CIV, WI] (3.0 cr)
- WRIT 4562 - International Professional Communication (3.0 cr)
- WRIT 4664W - Science, Medical, and Health Writing [WI] (3.0 cr)

Capstone

Students who double major and choose to complete the capstone requirement in their other major may waive the Technical Writing and Communication BS capstone, and they do not need to replace the 3 credits. Students who are completing a dual degree program must complete the Technical Writing and Communication B.S. capstone.

Take exactly 1 course(s) totaling exactly 3 credit(s) from the following:

- WRIT 4999 - Technical Writing and Communication Capstone (3.0 cr)
  or WRIT 4999H - Technical Writing and Communication Honors Capstone (3.0 cr)

Upper Division Writing Intensive within the major

Students are required to take one upper division writing intensive course within the major. If that requirement has not been satisfied within the core major requirements, students must choose one course from the following list. Some of these courses may also fulfill other major requirements.

Take 0 - 1 course(s) from the following:

- WRIT 3029W - Business and Professional Writing [WI] (3.0 cr)
- WRIT 3101W - Writing Arguments [WI] (3.0 cr)
- WRIT 3102W - Public Writing [CIV, WI] (3.0 cr)
- WRIT 3152W - Writing on Issues of Science and Technology [WI] (3.0 cr)

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Information current as of March 28, 2024

- WRIT 3221W - Communication Modes and Methods [WI] (3.0 cr)
- WRIT 3244W - Critical Literacies: How Words Change the World [AH, DSJ, WI] (3.0 cr)
- WRIT 3371W - Technology, Self, and Society [TS, WI] (3.0 cr)
- WRIT 3381W - Writing and Modern Cultural Movements [AH, WI] (3.0 cr)
- WRIT 3405W - Humanistic Healthcare and Communication [AH, WI] (3.0 cr)
- WRIT 3577W - Rhetoric, Technology, and the Internet [TS, WI] (3.0 cr)
- WRIT 3672W - Project Design and Development [WI] (3.0 cr)
- WRIT 3701W - Rhetorical Theory for Writing Studies [WI] (3.0 cr)
- WRIT 3751W - Seminar: Theory and Practice of Writing Consultancy [WI] (3.0 cr)
- WRIT 4431W - Science, Technology, and the Law [CIV, WI] (3.0 cr)
- WRIT 4573W - Writing Proposals and Grant Management [WI] (3.0 cr)
- WRIT 4662W - Writing With Digital Technologies [WI] (3.0 cr)
- WRIT 4664W - Science, Medical, and Health Writing [WI] (3.0 cr)
- WRIT 3562W - Technical and Professional Writing [WI] (4.0 cr)
  or WRIT 3562V - Honors: Technical and Professional Writing [WI] (4.0 cr)

Program Sub-plans

Students are required to complete one of the following sub-plans.

Information Technology and Design

The Information Technology and Design sub-plan is appropriate for students who are interested in careers in web development, media production, information technology, visual rhetoric, and message design. Students with a background and interest in computer science, engineering, design, visual communication, or technology may find this a useful emphasis area.

Required Courses

Take 15 or more credit(s) from the following:

Lower Division

Take at most 9 credit(s) from the following:

- CSCI 1001 *{Inactive}*[MATH, TS] (4.0 cr)
- CSCI 1103 - Introduction to Computer Programming in Java (4.0 cr)
- CSCI 1113 - Introduction to C/C++ Programming for Scientists and Engineers (4.0 cr)
- DES 2101 - Design and Visual Presentation (3.0 cr)
- GDES 2342 - Web Design (3.0 cr)
- GDES 2361 - Design Process: Photography (3.0 cr)
- DES 1101W - Introduction to Design Thinking [AH, WI] (4.0 cr)
  or DES 1101V - Honors: Introduction to Design Thinking [AH, WI] (4.0 cr)
- CSCI 1133 - Introduction to Computing and Programming Concepts (4.0 cr)
  or CSCI 1133H - Honors Introduction to Computing and Programming Concepts (4.0 cr)
- CSCI 2011 - Discrete Structures of Computer Science (4.0 cr)
  or CSCI 2011H - Honors Discrete Structures of Computer Science (4.0 cr)

Upper Division

Take 6 or more credit(s) from the following:

- COMM 3201 - Introduction to Electronic Media Production (4.0 cr)
- COMM 3204 - Advanced Electronic Media Production (4.0 cr)
- COMM 3211 - Introduction to Media Studies (3.0 cr)
- COMM 3645W - How Pictures Persuade [WI] (3.0 cr)
- COMM 4291 - New Telecommunication Media (3.0 cr)
- CSCI 3921W - Social, Legal, and Ethical Issues in Computing [CIV, WI] (3.0 cr)
- DES 3131 - User Experience in Design (4.0 cr)
- DES 3141 - Technology, Design, and Society [TS] (3.0 cr)
- DES 3311 - Travels in Typography (3.0 cr)
- GDES 4131W - History of Graphic Design [WI] (4.0 cr)
- IDSC 3101 - Introduction to Programming (2.0 cr)
- IDSC 3102 - Intermediate Programming (2.0 cr)
- JOUR 3006 - Visual Communication (3.0 cr)
- JOUR 3614 - History of Media Communication [HIS, TS] (3.0 cr)
- JOUR 3751 - Digital Media and Culture [AH, TS] (3.0 cr)
- HSCI 3331 - Technology and American Culture [HIS, TS] (3.0 cr)
  or HSCI 5331 - Technology and American Culture (3.0 cr)
- HSCI 3401 - Ethics in Science and Technology [HIS, CIV] (3.0 cr)
  or HSCI 5401 - Ethics in Science and Technology (3.0 cr)
- HSCI 4321 - History of Computing [TS, HIS] (3.0 cr)
  or CSCI 4921 - History of Computing [TS, HIS] (3.0 cr)
- KIN 3505 - Intro to Human-Centered Design (3.0 cr)

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or KIN 5505 - Human-Centered Design - Principles and Applications (3.0 cr)
•HUMF 5001 - Foundations of Human Factors/Ergonomics (3.0 cr)
or KIN 5001 - Foundations of Human Factors/Ergonomics (3.0 cr)

Biological and Health Sciences

The Biological and Health Sciences sup-plan is appropriate for students who are interested in careers in medical writing or communication related to public health, pharmacy, or biomedical technology. Students with a background and interest in biology, chemistry, anatomy, public health, nursing, or medicine may find this a useful emphasis area.

Required Courses

Take 15 or more credit(s) from the following:

Lower Division

Take at most 9 credit(s) from the following:

•BIOC 1010 - Human Health and Disease (3.0 cr)
•BIOL 1012 - Human Biology: Concepts and Current Ethical Issues [BIOL, CIV] (4.0 cr)
•BIOL 1101 - Genetics and Society [CIV] (3.0 cr)
•NSCI 1001 - Fundamental Neuroscience: Understanding Ourselves [TS] (3.0 cr)
•NSCI 2101 - Human Neuroanatomy [BIOL] (4.0 cr)
•PHAR 1002 - Medical Terminology (2.0 cr)
•PHAR 1004 - Common Prescription Drugs and Diseases (2.0 cr)
•PHIL 1005 - Scientific Reasoning (4.0 cr)
•BIOL 1009 - General Biology [BIOL] (4.0 cr)
or BIOL 1009H - Honors: General Biology [BIOL] (4.0 cr)
•CHEM 1015 - Introductory Chemistry: Lecture [PHYS] (3.0 cr)
with CHEM 1017 - Introductory Chemistry: Laboratory [PHYS] (1.0 cr)
CHEM 1061 - Chemical Principles I [PHYS] (3.0 cr)
with CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
or CHEM 1071H - Honors Chemistry I [PHYS] (3.0 cr)
with CHEM 1075H - Honors Chemistry I Laboratory [PHYS] (1.0 cr)
or CHEM 1081 - Chemistry for the Life Sciences I [PHYS] (3.0 cr)
with CHEM 1065 - Chemical Principles I Laboratory [PHYS] (1.0 cr)
CHEM 1062 - Chemical Principles II [PHYS] (3.0 cr)
with CHEM 1066 - Chemical Principles II Laboratory [PHYS] (1.0 cr)
or CHEM 1072H - Honors Chemistry II [PHYS] (3.0 cr)
with CHEM 1076H - Honors Chemistry II Laboratory [PHYS] (1.0 cr)
•CHEM 2301 - Organic Chemistry I (3.0 cr)
or CHEM 2331H - Honors Elementary Organic Chemistry I (3.0 cr)
•CHEM 2302 - Organic Chemistry II (3.0 cr)
or CHEM 2332H - Honors Elementary Organic Chemistry II (3.0 cr)

•Upper Division

Take 6 or more credit(s) from the following:

•BIOC 3021 - Biochemistry (3.0 cr)
•NSCI 3001W - Neuroscience and Society [CIV, WI] (4.0 cr)
•NSCI 3505W - Mind and Brain [WI] (4.0 cr)
•PHAR 3206 - Foundations of Health Literacy (3.0 cr)
•PHAR 5201 - Applied Medical Terminology (2.0 cr)
•PHCL 3100 - Pharmacology for Pre-Med and Life Science Students (2.0 cr)
•PHIL 3601W - Scientific Thought [WI] (4.0 cr)
•PHSL 3051 - Human Physiology (4.0 cr)
•PUBH 3004 *{Inactive}*(4.0 cr)
•PUBH 3106 - Making Sense of Health Studies (2.0 cr)
•PUBH 3351 - Epidemiology: People, Places, and Disease (2.0 cr)
•PUBH 3415 - Introduction to Clinical Trials - Online (3.0 cr)
•STAT 3011 - Introduction to Statistical Analysis [MATH] (4.0 cr)
•ANAT 3001 - Human Anatomy (3.0 cr)
or ANAT 3601 - Principles of Human Anatomy (3.0 cr)
or ANAT 3611 - Principles of Human Anatomy (3.0 cr)
•BIOL 4003 - Genetics (3.0 cr)
or GCD 3022 - Genetics (3.0 cr)
•BIOL 4004 - Cell Biology (3.0 cr)
or GCD 4005W - Cell Biology-Writing Intensive [WI] (4.0 cr)
•MICB 3301 - Biology of Microorganisms (5.0 cr)
or MICB 3303 - Biology of Microorganisms (without laboratory) (3.0 cr)
•PHAR 4204W - Drugs and the U.S. Healthcare System [CIV, WI] (3.0 cr)
or PHAR 5204 - Drugs and the US Healthcare System (3.0 cr)

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Legal Discourse and Public Policy

The Legal Discourse and Public Policy sub-plan is appropriate for students who are interested in careers with the government, politics, law, and public policy. Students with a background and interest in political science, economics, sociology, law, or philosophy may find this a useful emphasis area.

Required Courses

Take 15 or more credit(s) from the following:

Lower Division

Take at most 9 credit(s) from the following:

- PHIL 1004W - Introduction to Political Philosophy [AH, CIV, WI] (4.0 cr)
- POL 1201 - Political Ideas [HIS, CIV] (3.0 cr)
- PHIL 1001 - Introduction to Logic [MATH] (4.0 cr)
  or PHIL 1001H *{Inactive}*[MATH] (4.0 cr)
- POL 1001 - American Democracy in a Changing World [SOCS] (3.0 cr)
  or POL 1001H *{Inactive}*[SOCS] (3.0 cr)

Upper Division

Take 6 or more credit(s) from the following:

- COMM 3631 - Freedom of Speech [CIV] (3.0 cr)
- CSCI 3921W - Social, Legal, and Ethical Issues in Computing [CIV, WI] (3.0 cr)
- GWSS 3415 - Feminist Perspectives on Domestic Violence and Sexual Assault [DSJ] (3.0 cr)
- HIST 3835 - Law in American Life: 1865 to Present (3.0 cr)
- JOUR 3775 - Strategic Communication Law [CIV] (3.0 cr)
- JOUR 5552 - Law of Internet Communication (3.0 cr)
- POL 3225 - American Political Thought [CIV] (3.0 cr)
- POL 3308 - Congressional Politics and Institutions [SOCS] (3.0 cr)
- POL 3309 - U.S. Supreme Court Decision-Making, Process, and Politics (3.0 cr)
- POL 4501W - The Supreme Court and Constitutional Interpretation [CIV, WI] (3.0 cr)
- POL 4502W - The Supreme Court, Civil Liberties, and Civil Rights [CIV, WI] (3.0 cr)
- SOC 4161 - Criminal Law in American Society (3.0 cr)
- SOC 4162 - Criminal Procedure in American Society (3.0 cr)
- AAS 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans & Chicanos in the U.S. (3.0 cr)
  or AFRO 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans & Chicanos in the U.S. (3.0 cr)
  or AMIN 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans, & Chicanos in the U.S. (3.0 cr)
  or CHIC 4231 - Color of Public Policy: African Americans, American Indians, Asian Americans & Chicanos in the U.S. (3.0 cr)
- JOUR 3776 - Media Law (3.0 cr)
  or JOUR 3776H - Media Law (3.0 cr)
- LAW 3000 - Introduction to American Law and Legal Reasoning (3.0 cr)
  or LAW 5000 - Introduction to American Law and Legal Reasoning (3.0 cr)
- POL 4403W - Constitutions, Democracy, and Rights: Comparative Perspectives [GP, WI] (3.0 cr)
  or POL 5403 - Constitutions, Democracy, and Rights: Comparative Perspectives (3.0 cr)
- SOC 3101 - Sociological Perspectives on the Criminal Justice System [CIV] (3.0 cr)
  or SOC 3101H - Honors: Sociological Perspectives on the Criminal Justice System [CIV] (3.0 cr)
- SOC 4101W - Sociology of Law [WI] (3.0 cr)
  or SOC 4101V - Honors: Sociology of Law [WI] (3.0 cr)
  or SOC 5101 - Sociology of Law (3.0 cr)
- SOC 4171 - Sociology of International Law: Human Rights & Trafficking [GP] (3.0 cr)
  or SOC 5171 - Sociology of International Law: Human Rights & Trafficking [GP] (3.0 cr)

Environmental Science

The Environmental Science sub-plan is appropriate for students who are interested in careers in natural resources, sustainability, land conservation, and environmental issues. Students with a background and interest in environmental studies, geography, ecology, applied economics, forestry and natural resources, urban studies, and earth sciences may find this a useful emphasis area.

Required Courses

Take 15 or more credit(s) from the following:

Lower Division

Take at most 9 credit(s) from the following:

- ESCI 1001 - Earth and Its Environments [PHYS, ENV] (4.0 cr)
- ESCI 2202 - Earth History (4.0 cr)
- ESPM 1011 - Issues in the Environment [ENV] (3.0 cr)
- BIOL 1052 - Environmental Biology: Science and Solutions [ENV] (3.0 cr)
  or BIOL 1055 - Environmental Biology: Science and Solutions with Laboratory [BIOL, ENV] (4.0 cr)
- GEOG 1403 - Biogeography of the Global Garden [BIOL, ENV] (4.0 cr)
  or GEOG 1403H - Honors: Biogeography of the Global Garden [BIOL, ENV] (4.0 cr)
- ESPM 1425 - Introduction to Weather and Climate [PHYS, ENV] (4.0 cr)

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or GEOG 1425 - Introduction to Weather and Climate [PHYS, ENV] (4.0 cr)

•Upper Division

Take 6 or more credit(s) from the following:

- •BBE 4733 - Renewable Energy Technologies [TS] (3.0 cr)
- •CEGE 3501 - Introduction to Environmental Engineering [ENV] (3.0 cr)
- •CEGE 3541 - Environmental Engineering Laboratory (3.0 cr)
- •COMM 4251 - Environmental Communication [ENV] (3.0 cr)
- •ENGL 3501 - Public Discourse: Coming to Terms with the Environment [LITR, ENV] (3.0 cr)
- •ESCI 3005 - Earth Resources (3.0 cr)
- •ESPM 3011W - Ethics in Natural Resources [CIV, WI] (3.0 cr)
- •ESPM 3607 - Natural Resources Consumption and Sustainability [GP] (3.0 cr)
- •ESPM 4021W - Problem Solving: Environmental Review [WI] (4.0 cr)
- •FW 4102 - Principles of Conservation Biology [ENV] (3.0 cr)
- •GEOG 4002W - Environmental Thought and Practice [WI] (3.0 cr)
- •LA 3501 - Environmental Design and Its Biological and Physical Context [ENV] (3.0 cr)
- •PHIL 3301 - Environmental Ethics [ENV] (4.0 cr)
- •SUST 3003 - Sustainable People, Sustainable Planet [ENV] (3.0 cr)
- •URBS 3751 - Understanding the Urban Environment [ENV] (3.0 cr)
- •ESPM 3601 - Sustainable Housing--Community, Environment, and Technology [TS] (3.0 cr)
- •SOC 4305 - Environment & Society: An Enduring Conflict [ENV] (3.0 cr)
- •AGRO 3203W - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)
  or ANSC 3203W - Environment, Global Food Production, and the Citizen [GP, WI] (3.0 cr)
- •ESCI 3002 - Climate Change and Human History [ENV] (3.0 cr)
  or ESCI 5102 - Climate Change and Human History (3.0 cr)
- •ESCI 3402 - Science and Politics of Global Warming [ENV] (3.0 cr)
  or ESCI 5402 - Science and Politics of Global Warming (3.0 cr)
- •ESPM 3612W - Soil and Environmental Biology [WI] (4.0 cr)
  or SOIL 5611 - Soil Biology and Fertility (4.0 cr)
- •GEOG 3379 - Environment and Development in the Third World [SOCS, ENV] (3.0 cr)
  or GLOS 3303 *{Inactive}*[SOCS, ENV] (3.0 cr)
- •GEOG 3401W - Geography of Environmental Systems and Global Change [ENV, WI] (3.0 cr)
  or GEOG 5401W - Geography of Environmental Systems and Global Change [ENV, WI] (3.0 cr)
- •HSCI 3244 - Nature's History: Science, Humans, and the Environment [HIS, ENV] (3.0 cr)
  or HSCI 5244 - Nature's History: Science, Humans, and the Environment (3.0 cr)

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