Indiana University of Pennsylvania
WAC
Writing Across the Curriculum

Department of Safety Sciences

Department Writing Plan
Version 3.0

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Submitted to:
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Summary

The Safety Sciences Department began drafting this Writing Plan in September 2018, when Dr. Siegel Finer (WAC director) met with Dr. Tracey Cekada (Safety Sciences Department Chair). Dr. Siegel Finer clarified the reasons for moving toward a WAC model at IUP and explained the desired elements of a Departmental Writing Plan (DWP).

Dr. Cekada then collected writing assignments from faculty from the 100-, 200-, 300-, and 400-level Safety Sciences courses used over the preceding academic year. She placed them in a curriculum map and met with all members of the Safety Sciences Department with regard to their rationales for these assignments.

Dr. Cekada and Dr. Siegel Finer met several times throughout the Spring 2019 semester in order to review progress on the plan and orient future work on it. Dr. Cekada regularly discussed the development of the Plan with faculty at department meetings in the Fall 2018 and Spring 2019 semesters. Dr. Cekada also involved the Safety Sciences Undergraduate Curriculum Committee on the original development of this plan, which consisted of Dr. Minnick and Dr. Paschold. This committee devoted its Spring 2019 meetings to the discussion of desired student writing skills and assessment. In the Spring 2020 semester, the Safety Sciences Department faculty voted to approve the writing plan.

In the Winter of 2022, Dr. Cekada reviewed the plan and made revisions to the plan. One of the major revisions included the exemption of ENGL 202 Composition II from their curriculum as a requirement. Changes to this plan were reviewed by all faculty at a department meeting in the Fall 2023 semester.

In the summer of 2025, this plan was reviewed and updated to reflect applicable changes. During the fall 2025 semester, faculty reviewed and updated writing assignments applicable to the courses they typically teach.

Safety Sciences

Department Writing Plan
Rollout Fall 2020

Writing Characteristics Specific to the Discipline of Safety Sciences

In the field of Safety Sciences, strong written and oral communication skills are essential for professional success. Safety professionals must be able to communicate effectively in a variety of contexts and to diverse audiences. Our discipline can combine both a regulatory and humanistic approach to writing. It requires expertise in writing across a range of genres, including: scientific writing, technical writing, and expository writing. It encompasses the ability to write to "document"; write to "describe"; write to "inform"; and to write to "convince".

Safety professionals will be expected to write company policies and procedures; written programs; instructional materials; and on-line or in-class training programs. Safety professionals may be involved in research and technical writing as well as professional writing that may include cover letters and resumes. They will be expected to identify and document hazards; summarize their findings in memos and reports; and convince management of the need and/or requirement to implement their recommendations. Therefore, their recommendations need to be justified and supported by regulations and/or best practices policies. They must be clear, concise, accurate and justifiable.

Desired Student Writing Abilities

In the field of Safety Sciences, clear, concise, and accurate writing is essential. Professionals must effectively communicate their findings, recommendations, and implications to a wide range of audiences, including workers, supervisors, management, regulators, and peers—both inside and outside their organizations.

The Safety Sciences curriculum is guided by ABET accreditation standards and undergoes regular review by an Advisory Committee. This committee provides strategic guidance and feedback in areas such as curriculum development, outcome assessment, facilities and equipment, internships, emerging issues in occupational safety and health, funding, marketing, and recruitment. Additionally, because our program is a Board of Certified Safety Professionals (BCSP) Qualified Academic Program (QAP), we must also meet select curriculum requirements as outlined by the BCSP.

Students in the program will develop strong oral and written communication skills,

preparing them to become effective communicators and trainers in safety, health, and environmental contexts. They will learn to design and deliver training programs using modern technologies and engagement strategies. Through coursework and practice, students will gain the ability to persuade management and employees to support safety initiatives and effectively communicate with regulators and the workforce on safety, health, and environmental matters.

A Safety Sciences student who completes their SAFE courses will have received appropriate instruction and should be able to:

1. Describe such activities such as incidents, scenarios, and situations

2. Effectively explain and provide information/facts through investigations, investigative reports, and industrial hygiene surveys

3. Convince/persuade through identification of problems, recommendations, and applicable controls in reports, memos and emails.

4. Construct and deliver effective training presentations.

5. Communicate safety, health, and environmental information in writing to different audience types (e.g., management, employees, public and regulators) and within/across different functions in an organization.

6. Formulate or design a system, process, policy/procedure/program, or report to meet a desired need.

7. Identify and cite resources appropriately.

Communicating Writing Expectations to Students

Communication, both oral and written, is central to the development of a safety sciences student. It is the cornerstone of determining how effective they will be as safety professionals. The constant practice of writing prepares our students for the wide-range of documentation expectations of a safety professional. Our faculty communicate the importance of speaking and writing both in and outside the classroom. SAFE 215, Safety, Health and Environmental Communications, is a course that was developed for the sole purpose of enhancing communication skills for our students. Our curriculum encompasses five laboratory courses (SAFE 211, SAFE 330, SAFE 347, SAFE 430, and SAFE 412), which have expectations of regularly written laboratory reports and other extensive writing assignments. The majority of our SAFE classes have a semester project which incorporates a significant amount of writing into their curriculum.

We assess our students' ability to effectively communicate, both orally and written, through an Internship Supervisor Evaluation. This assessment is conducted during their last semester at IUP when they are on internship. We additionally assess our students' perception on their ability to effectively communicate through a Graduate Exit Survey, which is conducted immediately prior to graduation. Results of these surveys are provided to our advisory committee and are included in our ABET accreditation self-study. It was ultimately these surveys that led us to the development of SAFE 215 (SHE Communications), a writing-intensive course.

Writing activities and assignments are explained in writing and we reinforce these explanations in class. Some faculty have rubrics tailored for specific assignments. Most of our labs require extensive writing and we provide feedback on writing assignments to help students develop their writing. In some instances, drafts are accepted, and students can make revisions and resubmit their work so that improvements can be made. Our internship course requires the writing of two or four extensive reports. Faculty syllabi for these classes usually provide great detail on report expectations. Most faculty also meet with their students to discuss the writing requirements before the students leave to go on internship. Faculty allow a draft with a subsequent revision for the first paper. Several of our faculty use "turn it in" a plagiarism tool to prevent unlawful copying of others work. We will continue to reinforce this. In many of our classes we reinforce the need to be able to speak comfortably and fluently in front of others. As a result, many of our classes require oral presentations. We frequently refer students to the Writing Center.

We encourage and reinforce the importance of good writing outside of the classroom as well. Our students have participated in the undergraduate scholars forum (winning best research poster in 2018 and 2019 and Outstanding Oral Presentation at the Graduate level and an Honorable Mention at the Undergraduate level in 2022). They have presented their research and poster findings at national conferences, often receiving recognition for "best research poster" at these events. We regularly have visiting speakers who stress to students the importance of effective communication, both written and orally, in their jobs.

We have four student organizations within our program- the student section of the American Society of Safety Professionals (ASSP); the student section of the American Industrial Hygiene Association (AIHA); Ladies of Safety; and our Safety Sciences Honor Society, Rho Sigma Kappa (RSK). These student organizations have organized resume writing and interviewing preparation sessions. They have been involved in research competitions and/or projects through grants funded by the Alcoa Corporation, MEMIC, etc. The student section of ASSP sometimes creates newsletters updating students on what is happening both within the student section of ASSP and the department. As we move forward, we will continue to find additional ways that we can enhance writing not only throughout our curriculum, but throughout the program.

Syllabus Statement
The Department of Safety Sciences is devoted to improving students' written communication skills. In this class, you should expect that writing activities will be assigned and assessed in order to improve your communication skills in the profession.

Assessment of Student Writing

In an effort to assess student writing, the Safety Sciences Department plans to:

- Identify at least one faculty member to continue to be the WAC/SAFE liaison;
- Provide all newly hired faculty a copy of the DWP, and recommend attendance at WAC workshops or the two-day writing workshop for Liberal Studies faculty;
- Continue to collect outcomes for assessment and for our accreditation that reflect effective writing;
- Incorporate the above syllabus statement to our department syllabi, as appropriate;
- Administer assessment of senior writing samples biennially and analyze results with the WAC Director with the goal of implementing faculty development as necessary (in order to maintain assessment results above 80%);
- Incorporate biennial assessment results and writing plan progress on five-year review documents and/or accreditation Self Study reports;
- Continue to update the Writing Outcomes Curriculum Map as courses are added, removed, and revised in the SAFE curriculum (and communicate these changes to the WAC Director).

Learning Outcomes

By developing this Departmental Writing Program, the Safety Sciences Department demonstrates one of the ways in which it is helping to implement the university's strategic plan to adopt high-impact practices. The Department emphasizes writing at all levels of instruction and stresses to its students the ability to be able to write and communicate with employees across all levels of their organization. Therefore, our writing assignments encourage assignments focused on various audiences.

Writing Outcomes Curriculum Map

Students will not be required to take ENGL 202 Composition II. Instead, students meet the objectives of ENGL 202 through the completion of intensive laboratory reports in SAFE 211, 330, 347, 412, and 430. Safety Sciences also still has SAFE 215 Safety, Health, and Environmental Communications listed as a writing-instensive class to support

communication development, both in written and oral form. Faculty in many classes have expectations for a final culminating project, and our internship program all support an extensive writing requirement. The following Curriculum Map represents some of the writing activities that have been incorporated into the classroom. These activities can change based on accreditation criteria, changes in our field, and student learning needs. Faculty revise their assignments on a regular basis. Writing assignments may change or vary based on the number of students in the classroom and class expectations, however all faculty assign and teach writing throughout the curriculum. The mapping below illustrates some of the key writing assignments in our classes.

Upon completion of SAFE courses taught in the Safety Sciences Department, majors should demonstrate the following writing skills:

1. describe such things as incidents, scenarios, and situations;
2. effectively explain and provide information/facts through investigations, investigative reports, and industrial hygiene surveys;
3. convince/ persuade through identification of problems, recommendations, and applicable controls in reports, memos and emails;
4. construct and deliver effective training presentations;
5. communicate safety, health, and environmental information in writing to different audience types (e.g., management, employees, public and regulators) and within/across different functions in an organization;
6. formulate or design a system, process, policy/procedure/program, or report to meet a desired need; and
7. identify and cite resources appropriately.

Course	Title	Writing Activities	Purpose	Genres Modeled Through Reading
101	Intro to Occupational Safety and Health	campus observations	observe and identify hazards, effectively describe and evaluate their significance	
		hazard summary	extrapolate hazard potential and identify controls	
		job safety analysis	identify hazardous steps, establish controls for each step, and communicate safe	

			work practies for each step	
		Incident report form	synthesize and contextualize incident information	
		free journaling	assess and evaluate the impact of safety events in the news	
211	Principles of Safety II – Construction Industry	scaffolding lab report	create lab report using formal report guidelines based on activities in lab	
		ropes, chains, and slings report	interpret mathematical results from lab activities	
212	Hazard Prevention Management I	safety and health program	write a S&H program that incorporates policy and synthesizes recommendations	Scenarios, articles, textbook
		OSHA recordkeeping short answer assignment	provide short-answer responses to OSHA recordkeeping questions and provide a rationale to support your responses	
		risk assessment	investigate incidents, identify root causes, and conduct risk assessments and present controls	
		safety and health written report and presentation of program	elaborate S&H policy, describe controls, define a training plan, monitor program implementation by describing how indicators will be measured	
		accident analysis and investigation	analyze and identify root causes of a case	

		case study	study	
215	Safety and Health Communications	develop learning objectives	apply adult learning strategies to the development of an assigned topic	*Some assignments may be required to go through the Writing Center Videos, websites, class notes, OSHA Training Requirements, Career Services, guest speakers
		develop lesson plan	create lesson plan with interactive activities appropriate to the adult learner on a given safety topic	
		training handout development	create handouts with appropriate content for various audiences (low reading level, non-English- speaking workers, etc.)	
		training program	create and present a ulwritten training program in power point format	
		interview	conduct live interview of a safety professional about communication methods used by a modern safety professional and share findings with class	
		industry report	develop multi-stage technical paper on EHS aspect of an industry utilizing MS Word applications (eg. Table of contents, headings, page breaks, page numbering, diagrams, etc.	

		resume	using office of career planning guidelines, create resume though multiple draft review processes	
		cover letter	create a sample cover letter using office of career planning gudelines	
		writing emails	synthesize emails for clarity, conciseness, coherency, etc. and make recommendations for improvement	
		interview process review	synthesize meaningful answers to typical interview questions	
		instructions	write-to-describe: create step-by-step technical instructions for a task such as lockout/tagout using a minimum 2-draft improvement process	
220	Hazardous Materials and Emergency Preparedness	final project: hazardous materials paper	research, interpret, and synthesize information related to a hazardous material in a min. 15-page paper	Online resources and databases, textbooks/ Pocket Guides,
		chapter summaries (optional)	summarize and synthesize several chapters in the textbook	
		TOXNET database exercise	through research, describe and summarize applicable regulations, symptoms of exposure, uses, PPE, etc. for a select chemical	

		Waste management project	Write a 3-4 page page on managing the waste assigned to you	
		Spill response assignment	Complete New Pig training and provide a 3-page summary of what was learned. Establish a spill response procedure	

310	Environmental Safety and Health Regulations and Sustainability	industrial pollutant/semester project	select a manufacturing process, write a 3-4 page paper describing the process and the specific application of environmental regulations and their impact during the manufacturing of this product	Articles, case studies, permits, websites,
		memo	formulate a convincing argument through a memo as to why a Title V permit is required based on provided information	
		title V permit review	interpret information provided in a permit and formulate short answer responses	
		short answer responses	review article(s) and formuate short answer responses to questions	
		everyday exposure paper	based on an article assess potential hazards to toxins in the home and outdoors and identify lifestyle, home, or environmental changes to reduce these exposures in a 1-2 page paper	

		SPCC plan review	review a spill prevention control and countermeasures plan (SPCC) and provide detailed responses to specific questions	
		environmental regulations and permitting paper	in a 2-3 page paper, research an environmental regulation. Provide an overview of the regulation and its story; discuss how compliance monitoring is complete under the Act and provide a detailed discussion of the permitting process	
311	Industrial Fire Protection	sprinkler system or water flow project	examine a floor plan and design a sprinkler system meeting water and pressure demands	Scenarios, textbooks,
		flammable liquid storage project	develop an evaluative report of findings; construct handling procedures; and develop a report of OSHA requirements	
330	Recognition, Evaluation, and Control of Occupational Health Hazards I	Aerosol sampling lab report	anticipate, identify, and evaluate potentially hazardous agents, conditions, and practices based on lab sampling measurements for aerosols	Websites, safety data sheets, OSHA regulations, ACGIH guidelines, lab data, ASHRAE guidelines,
		gas/vapor sampling lab report	anticipate, identify, and evaluate potentially hazardous agents, conditions, and practices based on lab sampling measurements for gases and vapors	
		Finished report	based on measurements gathered in lab, write a memo to the company director that outlines your findings and recommendations; clearly support/justify your recommendations	

		written program	write a respiratory protection program that meets OSHA requirements	
335	Industrial and Environmental Stressors	Case study on toxicology	Assess a case study through a written report	Provides scenario, OSHA standards, websites
		Case study on epidemiology	Assess a case study through a written report	
		research paper	write a 5-page paper based on research from peer-reviewed article on an occupational environmental health issue utilizing epidemiology concepts	
345	Systems Safety	evaluate system from concept phase to disposal phase of system safety lifecycle (process hazard analysis project)	describe system and subsystems; conduct an analysis; identify major energy sources; describe programs; examine and describe disposal of the system; construct recommendations for elimination or control.	Textbooks, online resources
		chapter summaries (optional)	summarize and synthesize several chapters of the textbook	
		article summary (optional)	provide a one-page summary of an article	
347	Applied Ergonomics	computer workstation lab report	create a checklist to evaluate computer workstations; evaluate workstations and identify deficiencies; construct recommendations. Create a report that summarizes findings (including an Introduction, laboratory techniques, data and results, and conclusions/recommendations section)	Websites, ANSI standards, textbook, lab manual, videos, lifting tools

		lifting activity lab	analyze a lifting task and develop a group report of findings and recommendations (including an introduction, laboratory techniques, data and results, and conclusions/recommendations section)	
		final project	develop a report that describes the task you are reviewing; conduct a literature review of your task; explain tools to evauluate the task; analyze the task; summarize results; construct recommendations. Present findings	
361	Air and water Pollution Controls	Potable water smpling lab	Assess water sanitation on a commercially available water source. Write a 2-3 page assessment of your project	Regulations, case study, websites
		Air/water pollution literature review	Given a current pollutant, write a 6-8 page literature review of one aspect of its impact on either water or air. Present your research to the class.	
		Radon sampling and measurement lab	Assess radon leels using provided radon kits in a home or apartment	

412	Hazard Prevention Management II	training lab	develop taining material that uses active learning strategies. Conduct 25-30 minute presentation	Websites, lab manual, textbook, ANSI and ISO standards,
		write a policy statement	develop a corporate EHS policy that conforms to ISO 45001, ISO 14001, and ANSI Z10 Standards	

		safety and health program directive	develop a "production ready" site-wide S&H plan for a company that includes document control information; title; purpose; scope; references; definitions; quality control; responsibilities; procedures; signatures; and any attachments or forms	
		standard operating procedure	write to explain how to perform a task clearly	
		outline development	development of an outline of SH&E programs to be implemented in an organization and explain why they are important	
		accident investigation lab	complete an accident investigation report using a minimal causal analysis form	
		program manual	identify the components of an EHS program manual and find supporting evidence to justify your decision	
430	Recognition, Evaluation, and Control of Occupational Health Hazards II	biological hazards scholarly lab report	Conduct an inspection looking for biological issues and provide written report of findings and recommendations using the rubrics for the departmental internship project reports	Lab manual, text book, online NIOSH/OSHA, ACGIH/AIHA resources, smart phone apps,
		noise lab report	conduct noise monitoring and develop a report that includes an executive summary, background, fidings, discussion, and conclusions,	
		Heat stress program	Write a heat stress program for a hypothetical construction company incorporating the state of the science tols for bio monitoring and environmental assessment	

435	Ethics and Professionalism	case studies	Analyze several case studies related to ethics. Comprehensively explain your response	Case studies, websites, ASSP Professional Safety Journal, books
		personality assessments	Synthesize the results and write a summary including agreement/disagreement &negative aspects of assessment	
		professional development plan	Reflect on goals for next three years and develop measurable plan to achieve goals	
		book review	Critically review book and provide "revelations" the book provided	
493	Internship	industrial hygiene or hazard communication report	Conduct industrial hygiene monitoring and create a minimum 10-page report that includes the following sections: introduction; background; methodology; results/findings; recommendations; and conclusions	Textbooks, lab manuals, OSHA standards, websites, company policies and directives, course notes,
		safety program report	Create a written report that assesses a safety program and includes recommendations for improvement	
		fire or emergency preparedness report	Create a written report that assesses a fire emergency preparedness in the workplace.	
		other report	Create a written report that assesses and evaluates an issue of concern at their internship site. Summarize findings and include recommendations	

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Appendix A: Assessment Protocol and Rubric

The Safety Sciences undergraduate program is undergoing programmatic evaluation. Please be advised that your writing assignments may be randomly chosen for program assessment purposes. Program assessment activities will have no bearing on your course grade and, should your work be selected, your name will not be attached to it. If you have any questions about program assessment or wish to withdraw permission for use of your work, please contact the Safety Science Writing Coordinator, Dr. Tracey Cekada (cekadat@iup.edu).

Every two years, faculty teaching SAFE 493 (Internship) will assess the final research papers from their own section using the rubric below. Data will be collected and transmitted to the WAC coordinator. Following an initial assessment from Spring and Summer 2019, the ad hoc writing committee will determine whether adjustments should be made to the assessment rubric.

Report Evaluation Rubric

Students: _____
Group: _____

Section	Exceeds Expectations (5 points)	Meets Expectations (3 points)	Emerging (2 points)	Below Expectations (0 points)
1. Executive Summary (ES) ____ pts	Excellent content and writing that captures appropriate content for ES. Demonstrates a strong understanding of principles, problems, and needed improvements in the workplace. ES meets reasonable page limits. Exhibits a high degree of effective communication with the audience.	Content and writing capture appropriate content for ES. Demonstrates understanding of principles, problems, and needed improvements in the workplace. ES is within reasonable page limits. Exhibits effective communication with the audience.	Content and writing capture some appropriate content for ES. Demonstrates some understanding of principles, problems, and needed improvements in the workplace. ES is near reasonable page limits. Exhibits some effective communication with the audience.	Content and writing capture little or no appropriate content for ES. Demonstrates little or no understanding of principles, problems, and needed improvements in the workplace. ES is not near a reasonable page limit. Exhibits little or no effective communication with the audience.

Section	Exceeds Expectations (15 points/ea)	Meets Expectations (12 points)	Emerging (6 points)	Below Expectations (0 points)
2. Background/ Introduction _____ pts	Content and writing comprehensively capture the purpose and scope of the assignment; it states the significance/ relevance of the project and provides background/ supporting information for project need; describes the current hazard/process and current controls in place and their adequacy, if applicable. Any regulations or best practices driving project needs are identified.	Content and writing appropriately capture the purpose and scope of the assignment. It appropriately states the significance/ relevance of the project and provides background/ supporting information for project needs. It describes the current hazard/process and current controls in place and their adequacy, if applicable. Any regulations or best practices driving project needs are appropriately identified.	Content and writing capture some appropriate content for the purpose and scope of the assignment. It captures some of the significance/ relevance of the project and provides some background/ supporting information for project needs. It describes some of the current hazards/processes and current controls in place and their adequacy, if applicable. Any regulations or best practices driving project needs are only somewhat identified.	Content and writing capture little or no appropriate content for the purpose and scope of the assignment. It captures little or none of the significance/ relevance of the project and provides little or no background/ supporting information for project needs. It describes little or none of the current hazard/process and current controls in place and their adequacy, if applicable. Little or no regulations or best practices driving the project need are identified.
3. Methods ___ pts	Content and writing comprehensively describe the methodology in sufficient detail so that another researcher could reproduce their steps. It describes the reasoning for the methods used. Methods are logically organized.	Content and writing appropriately identify and describe the methodology in detail and support the method with theory when necessary. It describes the significance of the methodology and identifies any limitations in the methods. Methods are organized and presented appropriately.	Content and writing capture some appropriate content for the methods used for the assignment. It captures some of the significance/ relevance of the methods used and provides some background/ supporting information for the methods used. Methods are somewhat organized and presented.	Content and writing capture little or no appropriate content for the methods used for the assignment. It captures little or none of the significance/ relevance of the methods and provides little or no background/ supporting information for the methods used.
4. Findings ____ pts	Content and writing comprehensively identify and describe the findings in detail and support findings	Content and writing appropriately identify and describe the findings in detail and	Content and writing identify, describe, and support some of the findings with tables and pictures,	Content and writing identify and describe little or none of the findings and in little or no detail. Findings are not supported with

	with tables and pictures, when necessary. It describes the significance of the findings and identifies any limitations in the findings. Findings are logically organized and presented.	support findings with tables and pictures, when necessary. It appropriately describes the significance and limitations f the findings. Findings are organized and presented appropriately.	when necessary. It sometimes describes the significance of the findings and identifies limitations in findings. The findings are somewhat organized and presented.	tables and pictures, when necessary. Little or none of the significance or limitations of the findings are identified. Findings are not organized or effectively presented.
5. Recommendations ____ pts	Makes excellent recommendations in accordance with the hierarchy of controls and provides details, including cost and priority. Supports recommendations through regulations, best practices, etc. Comprehensively discusses the significance of the recommendations including limitations, when applicable. Organizes recommendations and ties them back to findings.	Makes appropriate recommendations in accordance with the hierarchy of controls and provides details, including cost and priority. Appropriately supports recommendations through regulations, best practices, etc. Appropriately discusses the significance of the recommendations including limitations, when applicable. Appropriately organizes recommendations and ties them back to findings.	Identifies some recommendations and provides some detail including cost and priority. Supports some recommendations through regulations, best practices, etc. Discusses the significance of some of the recommendations including limitations, when applicable. Sometimes organizes recommendations and ties them back to findings.	Makes few to no recommendations and/or not in accordance with the hierarchy of controls. Provides little to no detail on cost and priority. Provides little to no support of recommendations through regulations, best practices, etc. Does little or nothing to discuss the significance of the recommendations including limitations, when applicable. Rarely or never organizes recommendations and ties them back to findings.

6. Conclusion ____ pts	Content and writing comprehensively summarize major findings and recommendations without being redundant. States significance of needed changes.	Content and writing appropriately summarize major findings and recommendations without being redundant. States significance of needed changes appropriately.	Content and writing summarize some major findings and recommendations. Some redundancy was identified in the recommendation. Sometimes, it states the significance of needed changes.	Content and writing summarize little to none of the major findings and recommendations. Redundancy identified in recommendations. Little to no discussion of the significance of needed changes.
7. Spelling, punctuation, and grammar ___ pts	Ample evidence of superior writing skills. Consistently uses appropriate sentence structure, punctuation, and spelling. The writing style is tailored for the appropriate audience.	Evidence of strong writing skills. Frequently uses appropriate sentence structure, punctuation, and spelling. The writing style is sometimes tailored to the appropriate audience.	Inconsistency in writing skills. Inconsistently uses appropriate sentence structure, punctuation, and spelling. The writing style is not always tailored to the appropriate audience.	Lacking appropriate writing skills. Frequent errors in sentence structure, punctuation, and spelling. The writing style is unsuitable for the audience.
Section	**Exceeds Expectations (5 points)**	**Meets Expectations (3 points)**	**Emerging (2 points)**	**Below Expectations (0 points)**
8. Other ___ pts	Layout and design demonstrate excellent use of aesthetic principles. Excellent use of tables, figures, and pictures to support the report and make reference to them in the text. Adheres to APA referencing format throughout the report. The report provides excellent readability and flow.	Layout and design demonstrate the appropriate use of aesthetic principles. Appropriately uses tables, figures, and pictures to support the report and makes reference to them in the text. Regularly adhere to APA referencing format throughout the report. Provides appropriate readability and flow.	Layout and design demonstrate some use of aesthetic principles. Sometimes uses tables, figures, and pictures to support the report and makes reference to them in the text. Sometimes adheres to the APA referencing format throughout the report. Provides some readability and flow.	Layout and design demonstrate little to no use of aesthetic principles. Rarely or never uses tables, figures, or pictures to support reports and makes little to no reference to them in text. Rarely or never adheres to APA referencing format throughout the report. The report is difficult to read and follow.

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Total Points: _____ / 100 points

Comments:

Appendix B: Assessment Results

Areas in which student writing is ABOVE standard: 77+

Holistic:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	90% = **60%**/36% (15/9)	4% = 4%/0 (1/0)
2022 N=29	87% = 21/**66%** (6/19)	14% =14%/0% (4/0)
2019-2020 N=27	74% = 0%/**74%** (0/20)	26% = 22%/4% (6/1)

Background/Introduction:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	80% = **40%/40%** 10/10	20% = 20%/0 (5/0)
2022 N=29	79% = **41%**/38% (12/11)	21% = 21%/0% (6/0)
2019-2020 N=27	74% = 0%/**74%** (0/20)	26% = 26%/0% (7/0)

Findings:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	80% = 36%/**44%** (9/11)	20% = 20%/0 (5/0)
2022 N=29	86% = 24%/**62%** (7/18)	14% = 14%/0% (4/0)
2019-2020 N=27	70% = 0%/**70%** (0/19)	30% = 19%/11% (5/3)

Spelling, Punctuation, Grammar:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	100% = **84%**/16% 21/4	0/0
2022 N=29	79% = 34%/**45%** (11/13)	17% = 17%/0% (5/0)
2019-2020 N=27	70% = 0%/**70%** (0/19)	30% = 26%/4% (7/1)

Methods:

year(s)	exceeds/meets	emerging/below
Spr and	80% = **52%**/28% (13/7)	20% = 20%/0 (5/0)

Summer 2025 N=25		
2022 N-29	78% = 26%/ **52%** (7/15)	26% = 26%/0% (7/0)
2019-2020 N=27	63% = 0%/**63%** (0/17)	37% = 22%/15% (6/4)

Executive Summary:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	80% = **48%/**32% (12/8)	20% = 12%/8% (3/2)
2022 N=29	86% = 34%/ **52%** (11/15)	11% = 11%/0% (3/0)
2019-2020 N=27	67% = 0%/**67%** (0/18)	33% = 26%/7% (7/2)

Recommendations:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	100% = (**68%/**32%) 17/8	0
2022 N-29	92% = 22%/ **70%** (6/19)	15% = 15%/0% (4/0)
2019-2020 N=27	52% = 0%/**52%** (0/14)	48% = 26%/22% (7/6)

Conclusions:

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	100% = **80%/**20% (20/5)	0
2022 N=20	80% = 30%/**50%** (6/10)	20% = 10%/10% (2/2)
2019-2020 N=27	56% = 0%/**56%** (0/15)	45% = 19%/26% (5/7)

Other (Layout, Tables, References, etc):

year(s)	exceeds/meets	emerging/below
Spr and Summer 2025 N=25	100% = **78%/**22% (19/6)	0
2022 N=29	90% = 28%/**62%** (8/18)	11% = 11%/0% (3/0)
2019-2020 N=27	67% = 0%/**67%** (0/18)	34% = 30%/4% (8/1)

Areas in which student writing is MEETING standard: 68-77

None

Areas in which student writing is BELOW standard below 67 and below

None

Analysis of Biennial (2025) Assessment Results and Recommendations from the WAC Director

In all criteria, scores have continued to improve over the last assessment period years. While students were mostly falling into the meeting expectations level in 2019, in 2025, the majority are meeting expectations. More students are exceeding expectations in this assessment period, too. Safety Sciences faulty should be commended for their commitment to improving writing instruction and growth in student writing outcomes.

In two areas – findings and executive summary - scores did go down nominally overall for meeting/exceeding expectations. However, for these two criteria, more students exceeded expectations than met them.

Over the next two years, department faculty will review this Writing Plan and use these assessment results for professional development and curriculum revision as they deem appropriate. To make the most out of this time toward improving student writing skills and therefore assessment results, my only recommendation is as follows (other than, keep doing what you're doing!):

1. Keep expanding sample size if possible. A larger sample size increases reliablilty.
2. (Re)consider the lowest end of the rubric: it seems unusual that only 2 student writing samples scored in the lowest range in any of the criterion. Faculty should discuss what it really would take to score in that range and if those expectations are too low for graduating seniors.

It should be noted that when I aksed Dr. Cekada about using the lower end of the rubric, she replied: "There are several factors that may contribute to the good scores: a) **students are able to do a draft of their first report**, so they can make necessary edits and resubmit; b) sometimes the reports are reviewed by the company before they are allowed to be released (for legal purposes); c) **they have been prepared to write these detailed reports through their previous written work** in SAFE 211, SAFE 330, SAFE 430, SAFE 347, and SAFE 412."

This is strong evidence that WAC is working in Safety Sciences – students are learning to write drafts, revise them from feedback, and large assignments are being scaffolded in earlier courses. This program should be commended for using WAC principles in their pedagogy, which has improved student outcomes.

Analysis of Biennial (2022) Assessment Results and Recommendations from the WAC Director

Notably, all students are exceeding expectations in all rubric criteria. The department should be commended for their work in improving student writing outcomes. Four criteria have moved from "Meeting Expectations" to "Exceeding Expectations": Holistic, Background and Introduction, Findings, and Spelling and Punctuation. Five criteria moved from "Below Expectations" to "Exceeding Expectations": Methods, Executive Summary, Recommendations, Conclusions, and Other.

The majority of students (between 49 and 74%) in this sample are meeting expectations for the defined writing criteria, although the department would like to see a higher percentage (closer to 80%) of students doing so.

Over the next two years, department faculty will review this DWP and use these assessment results for professional development and curriculum revision as they deem appropriate. To make the most out of this time toward improving student writing skills and therefore assessment results, my recommendations are as follows:

- (Re)consider the lowest end of the rubric: it seems unusual that only 2 student writing samples scored in the lowest range in any of the criterion. Faculty should discuss what it really would take to score in that range and if those expectations are too low for graduating seniors.
- In almost all categories, the highest percentage of students are in the "meeting" range. This suggests that overall writing pedagogy could be aimed more toward students who are meeting expectations to try and challenge them more so they are pushed toward "exceeding."
- The department should look carefully at criteria where 20% or more of students are below expectations (background and introduction, and methods) and consider ways to revise pedagogy and/or support all students in improving these skills. Department instructors who feel confident in their teaching in those areas or the WAC director could run workshops for the full faculty in these specific areas.

Analysis of Assessment (2019) Results and Recommendations from the WAC Director

The majority of students (between 52 and 74%) in this sample are meeting expectations for the defined writing criteria, although the department would like to see a higher percentage (closer to 80%) of students doing so. Holistic results (74% meeting expectations) align closely with several criteria (background/introduction, findings, and grammar) and are within 10 percentage points of two others (executive summary and other) demonstrating that the holistic rating is a reliable measure of students' writing skills overall, and that the department value these criteria that most closely match up with the holistic score as evidence of good writing.

Over the next two years, department faculty will review this DWP and use these assessment results for professional development and curriculum revision as they deem appropriate. To make the most out of this time toward improving student writing skills and therefore assessment results, my recommendations are as follows:

- (Re)consider the highest end of the rubric: it seems unusual that no student writing scored in the highest range in any of the criterion. Faculty should discuss what it really would take to score in that range and if those expectations are realistic for graduating seniors. Oftentimes we think about "ideal text" as the highest standard of professional writing, when exceeding expecations as someone only just entering the field would not necessarily have that mastery.
- In almost all categories, somewhere hovering around 30% of students are in the "emerging" range. This suggests that overall writing pedagogy could be aimed more toward students who are emerging. Faculty could spend time considering ways to focus on students who are "getting it" but need a bit of extra support to really meet expectations. If that 30% of students in those five criteria were supported enough to move to "meeting expectations," then in almost all criterion, a huge majority of students would be meeting the departments standards for good writing.
- The department should look carefully at criteria where 20% or more of students are below expectations (conclusions and recommendations) and consider ways to revise pedagogy and/or support all students in improving these skills. Department instructors who feel confident in their teaching in those areas or the WAC director could run workshops for the full faculty in these specific areas.