I. Writing Plan Cover Page

*Please fill in the gray areas on this form.*

October 12, 2018

☒ Subsequent Edition of Writing Plan: previous plan submitted SUM/15, First edition submitted SPR/11

Construction Management

<table>
<thead>
<tr>
<th>WEC Unit Name</th>
<th>Continuing and Professional Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Applied and Professional Studies, Degree &amp; Credit</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Department</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Peter Hilger, AIA</td>
<td>Faculty Director</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WEC Faculty Liaison (print name)</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="mailto:aphilger@umn.edu">aphilger@umn.edu</a></td>
<td>612-624-8831</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Email</th>
<th>Phone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>612-624-8831</td>
</tr>
</tbody>
</table>

Writing Plan ratified by Faculty

*Note: This section needs to be completed regardless of Writing Plan edition.*

**Date:** June 2018

<table>
<thead>
<tr>
<th>If Vote:</th>
<th># yes</th>
<th># total</th>
</tr>
</thead>
</table>

Process by which Writing Plan was ratified within unit (vote, consensus, other- please explain):

This revision of the 3rd Writing Plan was submitted to all faculty via email in June 2018. Since this revision only made changes to a previously approved version, the plan was approved by consensus with no objections from faculty.
II. **Unit Profile:** Construction Management  
*Please fill in the gray areas on this form.*

**Number of Tenured and Tenure-Track Faculty:**

| Professors | 0 |
| Associate Professors | 0 |
| Assistant Professors | 0 |
| **Total** | 0 |

The College of Continuing and Professional Studies has no tenure or tenure track faculty, with 27 industry professionals serve as adjunct faculty.

**Major(s)**

| Please list each major your Unit offers: | Total # students enrolled in major as of Fall/18 | Total # students graduating with major AY 0#-## |
| Construction Management | 56 | |

**WEC Implementation Process**

| Semester/Year- Semester/Year | # participated / | # invited |
| Writing Plan 1st Edition | July 2011 | / |
| Writing Plan, 2nd Edition | July 2012 | / |
| Writing Plan, 3rd Edition | July 2015 | / |
Signature Page

If this page is submitted as a hard copy, and electronic signatures were obtained, please include a print out of the electronic signature chain here.

WEC Faculty Liaison

A. Peter Hilger

WEC Faculty Liaison (print name)

Signature

9/18/18

Date

Department Head/Chair

Same as below

Print Name

Signature

Date

Associate Dean

Michelle Koker

Print Name

Signature

9/11/18

Date

For College of Liberal Arts units only:

CLA - Curriculum, Instruction, and Advising Committee approved Writing Plan on

Print Name

Signature

Date
IV. Writing Plan Narrative, 3rd Edition (Revision)

Please retain section headers and prompts in your plan.

Introductory Summary:
Briefly describe the reason(s) this unit (department, school, college) become involved in the WEC project, the key findings that resulted from the process of developing this plan, and the implementation activities that are proposed in this Writing Plan, with particular attention to the following questions: what is new in this 3rd edition of the Writing Plan? What, if any, key changes have been made to the 2nd edition? What key implementation activities are proposed in this edition of the Writing Plan? (1 page maximum)

Since 1996, this advanced-standing program initially served non-traditional students with some college coursework and industry work experience with a course of study towards either a Bachelor of Applied Science (B.A.Sc.) degree, an academic minor, or an academic certificate. The student body has evolved into a blend of adult learners and traditional students, many without any prior construction experience, and also serves students from departments such as Architecture, Interior Design, Housing Studies, and Civil Engineering seeking relevant coursework to supplement their future professions. More recently, the program has expanded to include a Facility Management track, which will be immediately integrated into the Construction Management Writing Plan.

By virtue of its academic charter, the College of Continuing and Professional Studies (CCAPS, formerly the College of Continuing Education, or CCE) has no full-time or tenured faculty. This college relies on a few University faculty, who agree to teach on overload, and experienced adjunct professionals—many of whom have been with the program for many years—who generally teach one to two classes per academic year. CMgt faculty members typically work full-time in the construction or facility management industry and have significant outside commitments, thus only two faculty meetings are held per year. A rigorous program quality cycle has been in place to monitor program, course and faculty progress and improvement.

What We Have Accomplished
Since approval of our first- and second-edition Writing Plans, the following initiatives have been undertaken:

- Retained Ms. Heidi Wagner, a graduate research assistant with a construction management degree, to complete mapping, including one-on-one faculty interviews, of the entire curriculum against the identified writing criteria and industry-supported genres. Ms. Wagner also prepared a statistical analysis of the mapping for presentation to faculty. The result of this mapping is incorporated as Appendix A.1.
- Continually discussed and reinforced the importance of the Writing Plan and its results with faculty and have received very positive endorsement and support, especially in applying alternative assignments that more directly relate to their learning outcomes and the writing criteria. Have issued a “virtual” faculty meeting with a voice-over PowerPoint to all faculty of the mapping results, for their review, comment and discussion at the Fall faculty meeting (Appendix A.5).
- Started to implement a basic Writing Enriched Curriculum module within the course syllabi to make students aware of the program and how a particular class (CMgt 4011, CMgt 4041, CMgt 4072, CMgt 4196, CMgt 4422, CMgt 4562, CMgt 4861) is impacted by the writing criteria. The course syllabus text already incorporated in some courses is attached and marked Appendix A.2.
- Completed two rating sessions of capstone level writing in 2011(n14) and 2014 (n13) generated by an upper-division proposal assignment from the CMgt 4041W Specification and Technical Writing class
(the “Gizmo” project). Over the intervening three year period evaluating the same assignment, most criteria indicated improvement, in some cases significant improvement. This sample of upper division writing assessment demonstrates the effectiveness of dedication to the improvement of student writing within the program. The results of this rating covering both periods are included in Appendix A.3

- Successfully converted CMgt 4041W, Specification and Technical Writing, to Writing Intensive status (first offered as Writing Intensive Spring 2012), and CMgt 3001W, Introduction to Construction Management, to Writing Intensive Status (first offered as Writing Intensive Spring 2017).
- After several technical delays, launched the planned Student Writing Style Guide January, 2015, Writing for Construction Managers: A Guide to Content and Style, a fully public facing website intended as a resource specific to our industry, to be used and referenced by faculty and students alike within our curriculum, and attached to every Moodle site within the program. This site was researched and drafted by Ms. Rachel Fang, our second Graduate Research Assistant, and developed into a web platform by our own instructional designer, Dr. Kim Ballard
- Successfully obtained International Facility Management Association (IFMA) provisional accreditation, and American Council of Construction Education (ACCE) accreditation. Demonstration of our Writing Plan was significant in the program presentation and has a direct impact on program quality that enables accreditation.
- Hilger and Wagner presentation to the 12th International Writing Across the Curriculum Conference (IWAC), June 2014 entitled: Integration of Industry Professionals’ Feedback Into Improving Writing Skills of Construction Management Undergraduates.
- Hired Mr. Richard Kronik, a well known industry expert, to develop and narrate eight mini-web videos on basic writing principles, delivered by “Richard the Writing Guy”, taped and produced within CCE to bring alive otherwise dry basics to our student audience in a fully web enabled platform.

The Final Phase: Path Toward Successful Self Sufficiency

As the CMgt enters the final phase of its coordinated work with the Writing Enriched Curriculum program and begins to move to a self-sufficient and self-sustaining approach to a dynamic and integrated writing curriculum, we plan to take the following series of steps:

- Aggressively integrate consistent and comprehensive writing instruction into the “core” courses of the program by doing the following:
  - “Audit” core courses (listed in Section V, below) to assess the writing skills, assignments, and instructional materials used
  - Convene review sessions for each of these courses with the course instructor, faculty director, program director, writing specialist, and instructional designer to align course materials with program-wide goals and established writing criteria and outcomes.
  - Revise courses as needed to create a consistent approach to writing instruction and outcomes, filling any and all gaps, as well as making sure that students receive comprehensive instruction in all writing expectations before graduation.
- Writing for Construction Managers: A Guide to Content and Style: continue to develop and refine this resource as follows:
  - Establish the site on the U of MN web platform rather than as a Google Site, to improve access and searchability (currently underway with CCAPS’ marketing group)
The Office of the Vice Provost of Undergraduate Education  
Center for Writing  
University of Minnesota  
612-626-7639  
www.wec.umn.edu

- Annual review and update of content as collected over the previous academic year, based upon student, faculty and public input and assessment.
- Starting in Spring 2019, every regularly scheduled course update will link specific assignments to specific resources in the site that will help both faculty and student alike.

- As CMgt moves to accreditation through ABET, writing outcomes will be mapped across the curriculum and tied to specific assessment of student writing by the faculty; these outcomes will then be mapped to specific criteria in the ABET accreditation process. We have retained a part time writing consultant to help not just the Construction Management program, but to connect all CCAPS programs to appropriate writing assignments and rubrics.
- Extend the rating of the “Gizmo Proposals” (senior level writing project) for a third and final review after Spring 2017, after which the review will be internalized as part of a regular assessment.
- Begin to collect writing samples from select courses representing a variety of academic experience levels and representing at least one piece from each genre, and measure the assessment progress for each of the writing ability/competencies annually.
- Engage Writing Center staff on limited consulting, particularly in support of specific tools that can help our Adjunct faculty teach with writing.

The unique structure of the CMgt program within the University environment calls for a unique approach to teaching with writing. Industry’s demand for graduates who communicate well on all levels was clearly expressed and supported by 90% of the WEC “Professional Affiliate” survey respondents who considered writing very or extremely important. Our third edition Plan, which primarily involves completing the development of faculty resource tools, combined with our unique program quality control initiatives tied to outcome standards, will deliver graduates who meet or exceed the standards for the abilities identified, as well as the University’s Student Learning Outcomes (SLOs).

Section 1: DISCIPLINE-SPECIFIC WRITING CHARACTERISTICS

What characterizes academic and professional communication in this discipline?

☑ There have not been substantial revisions to this section of the Writing Plan.
☐ There have been substantial revisions to this section of the Writing Plan. (Discuss these explicitly.)

The construction industry is a client-focused, relationship-centric business requiring of its workers communication skills involving technical knowledge of building and efficient use of resources. Writing in the construction industry is characterized by concise, focused communication that satisfies contractual requirements, identifies and solves problems, and establishes a historical record of a project or process. Very little academic writing is produced within the industry, with the greatest writing efforts focused on professional communication. The primary industry-standard writing genres, as determined overwhelmingly by our industry-rooted faculty and confirmed by the WEC industry survey¹, consist of the following (% industry response):

- Correspondence (letters, memoranda, e-mails, etc.) (98%)

¹ The effective response rate for faculty and industry was in excess of 61%. WEC Industry Affiliate survey, question 7: “What kinds of writing do you do in your job?”
Following the WEC survey of our faculty and industry constituents, the following predominant writing characteristics emerged\(^2\) (faculty % / industry %):

1. **Descriptive**: ability to convey process, describe objects, data, environments, etc. (86% / 68%)
2. **Explanatory**: translating complex content into comprehensible definitions and/or instructions (57%/50%)
3. **Analytical**: emphasizing the logical examination of subjects (93% /45%)
4. **Argumentative**: positioned to persuade readers (43%/31%)
5. **Technical**: emphasizing accurate, complex, and relatively objective information, data, etc. (57%/22%)

Further, summarizing the WEC survey, faculty overwhelmingly identified the following abilities they most wanted to strengthen in their students through their teaching\(^3\):

- Analyzing and creating concise summaries of ideas, texts, or events
- Appropriately using terminology and jargon along with correct grammar and punctuation
- Creating precise descriptions of processes, objects, and findings.

> “Conveying information using proper grammar and punctuation is essential! The reader wants to know what you are requesting. State it clearly up front, develop the thought, re-state the request. Anything more is a waste of everyone’s time.” - Affiliate survey response

### Section 2: DESIRED WRITING ABILITIES

*With which writing abilities should students in this unit’s major(s) graduate?*

- ✔ There have not been substantial revisions to this section of the Writing Plan.
- ☐ There have been substantial revisions to this section of the Writing Plan. (Discuss these explicitly.)

After receipt of the survey results, the faculty and administrative staff jointly crafted criteria describing those abilities that students should master prior to graduation, and are maintained without revision:

**Communicate clearly**: Articulate problems, proposals, procedures, and policies using concrete, unambiguous language.

---

\(^2\) WEC industry and faculty survey, “. . .which three characteristics are most important?”

\(^3\) WEC faculty survey: “Which writing abilities do you hope your assignments strengthen in students . . .”
**Use evidence:** Habituably maintain and comprehensively recall, recite, and apply documents, records, notes, data, and independent research in support of critical thinking.

**Communicate about problems and conflicts:** Objectively analyze, recite, assess, evaluate, interpret, and communicate issues, problems, conflicts, and their solutions.

**Understand and address stakeholder concerns:** Inspire confidence using language, tone, authentic voice, and technical detail appropriate to the stakeholder perspective and ability to comprehend.

**Correctly use industry-standard documents:** Read, create, modify, and interpret drawings, forms, and other industry-standard documents.

**Interpret technical material:** Demonstrate mastery and proper application of technical terminology, tools, jargon, and software.

“The adjunct professors knew what actual writing we would be dealing with in construction, which was more useful than thesis papers.” - Student survey response

“Every email or letter we write (which we do very often) reflects on me and the company I work for.” - Affiliate survey response

“Even though I have developed into a better writer, I wish there was more ‘real world’ writing available in college. Also on that note, I wish critical writing was stressed more heavily in the Const. Mgmt. degree. It was never emphasized as an extremely important tool.” - Affiliate response

**Section 3: INTEGRATION OF WRITING INTO UNIT’S UNDERGRADUATE CURRICULUM**

How is writing instruction currently positioned in this unit’s undergraduate curriculum (or curricula)? What, if any, course sequencing issues impede an intentional integration of relevant, developmentally appropriate writing instruction?

- There have not been substantial revisions to this section of the Writing Plan.
- There have been substantial revisions to this section of the Writing Plan. (Discuss these explicitly.)

According to a 2010 WEC faculty survey, 73% of faculty rated the importance of writing to the discipline to be either “very important” or “extremely important.” Approximately 45% of classes assigned writing between 1 to 5 pages, and 52% between 6 and 20 pages. Following the more detailed course mapping process, we have been able to assess the density and frequency of writing assignments and their match to the writing abilities across the curriculum (See Appendix A1.1 and A1.2).

In this third edition of the Construction Management Writing Plan, the following strategies are planned to comprehensively sequence writing into our undergraduate curriculum:

a. **Core Course Audit, Review, and Revise**
   1. Target core courses in the CMgt curriculum for review and revision to ensure that writing instruction, assignments, and assessment is consistent, clear, and progressive.
   2. Audit courses for all writing components (via a Research Assistant)

---

4 WEC 2011 faculty survey: “How important is writing to the scholarly and professional work done in this major’s discipline?”
3. Review courses with instructor, faculty director, program director, writing specialist, and instructional designers
4. Revise courses as needed to create stronger alignment, better instruction, and a more cohesive writing experience for each student

b. Complete Mapping
1. Integrate, coordinate and connect ABET accreditation outcomes and standards to the WEC program abilities/competencies, and assure assignments are being drawn vertically and horizontally across the entire program curriculum
2. Work with faculty to establish measurable rubrics that will enable data collection via CampusLabs software for selected, repeatable assignments across the curriculum measuring each ability/competencies.
3. Identify outcomes based assignments from the pure "learning based" assignments to establish WEC program "breadth and depth" across the curriculum.

c. Expand faculty training with targeted writing instruction and workshops
1. Expand the awareness of the Student Writing Style Guide with all faculty, and based upon faculty input for the workshops identified above, tailor the content to make the site more meaningful for each faculty and their courses.
2. Aside from the outcomes based, consistently measured assignments required for accreditation, emphasize how writing can improve learning beyond measuring through exposure to specific tools and strategies that not only deliver technical content or know-how, but also build writing skills by expanding (appropriately) the writing output of all courses.
3. Incorporate a Writing snippet or tool within each Faculty meeting.

d. Standardize writing objectives within all CMgt Course syllabi
1. Refine the current language to simplify the identification of WEC precepts and parameters across the curriculum, and focus on identifying the WEC goals for the particular course are clear and concise.
2. Standardize the measurement "standards" for common types of assignments.

e. Focus and Expand
1. Through faculty engagement on the importance of writing, work to change the culture of teaching with writing as part of a flipped classroom delivery model, and stimulate by example and tools the ways in which we can teach our technical and management content beyond lecture to industry appropriate writing assignments. This will be done one-on-one with the Faculty Director, as regular part of the twice annual faculty meetings, and through the course review process.
2. Add one or two other Writing Intensive designated courses into our curricular mix.
3. (Stretch Goal) Use our emphasis on writing not only at the program level, but also at the college level be exhibited in our program promotional materials, and also use the University branded Writing for Construction Managers: A Guide to Content and Style website to display our leadership in using writing as one important cornerstone in the foundation for teaching Construction Management, and therefore drive enrollment choices.

APPLIED AND PROFESSIONAL STUDIES CONTINUOUS QUALITY IMPROVEMENT (CQI)
The College of Continuing Education’s Applied and Professional Studies (APS) teaching and development guidelines support faculty in their teaching and uphold the high expectations of CCE and the University for teaching excellence with achievable benchmarks for regular course and teaching reviews, targeting development and mentoring
opportunities. The guidelines are designed to:

- Improve student learning outcomes;
- Develop and support a community of effective teaching practice;
- Enhance and document teaching effectiveness;
- Model effective teaching and learning practice; and
- Adhere to University policy for instructor review.

The Writing Plan, along with the related teaching and style guides, are designed to fit within the CQI as a regular part of the course review process, assuring that the writing abilities are continuously fostered, taught, and maintained across the curriculum, and can be effectively taught by new or existing faculty members where such experience in teaching with writing may be more limited. Further, assessment and measurement of student writing abilities/competencies is an absolute indicator of where improvements need to be addressed within the curriculum.

See Appendix 1.1 for a chart of the writing concentration within our present curriculum, developed from direct faculty interview and syllabus review, mapping the proposed writing abilities, the qualities that describe each ability, the typical industry-based genre used, and possible methods of rating. The following table presents the writing abilities with their associated assessment qualities and possible genres.

<table>
<thead>
<tr>
<th>ABILITY</th>
<th>ASSESSMENT QUALITIES</th>
<th>GENRE USED</th>
</tr>
</thead>
</table>
| Communicate clearly: Articulate problems, proposals, procedures, and policies using concrete, unambiguous language. | • Correct grammar and punctuation  
• Accurately presented  
• Clear, concise, correct | • Correspondence  
• Proposals  
• Directives, instructions  
• Estimates, schedules  
• Specifications |
| Use evidence: Habitually maintain and comprehensively recall, recite, and apply documents, records, notes, data, and independent research in support of critical thinking. | • Maintain notes  
• Data and research adequately cited  
• Data and research applied to analyze and solve problems  
• Arguments supported by logic | • Field and observation reports  
• Specifications  
• Proposals and studies  
• Negotiations  
• Meeting minutes  
• Research papers |
| Communicate about problems and conflicts: Objectively analyze, recite, assess, evaluate, interpret, and communicate issues, problems, conflicts and their solutions. | • Stakeholder perspectives presented, compared, and contrasted  
• Clear and bias-free restatement of problems | • Correspondence  
• Change management schedules  
• Lab reports  
• Feasibility analysis  
• Essays and minute papers  
• Daily logs |
| Understand and address stakeholder concerns: Inspire confidence using language, tone, authentic voice, and technical detail appropriate to the stakeholder perspective and ability to comprehend. | • Audience is consistently addressed in a clear way  
• Appropriate tone is used  
• Anticipate audience objections  
• Portrayed in writer’s own voice | • Presentations  
• Proposals  
• Change management and negotiation  
• Feasibility studies  
• Meetings |
Section 4: ASSESSMENT OF STUDENT WRITING

What concerns, if any, have unit faculty and undergraduate students voiced about grading practices?

Please include a menu of criteria extrapolated from the list of Desired Writing Abilities provided in Section II of this plan. (This menu can be offered to faculty/instructors for selective adaptation and will function as a starting point in the WEC Project’s longitudinal rating process.).

☑ There have not been substantial revisions to this section of the Writing Plan.
☐ There have been substantial revisions to this section of the Writing Plan. (Discuss these explicitly.)

“Writing in construction is much different than any writing I have ever been taught in my entire schooling. It is important to learn the difference.” - Student survey response

The communication of writing expectations and assessment of student writing is presently conveyed at the course level, and at the program level on our website. Whether or not a rubric is utilized, and how such writing is measured against any sort of “standard,” be it industry or individual preference, writing assessment is typically described at the assignment level via written and/or oral instruction. Examples of correct applications or documents are also typically used. All instructors are professionals working within the construction industry, with 10-25 years’ experience. Their familiarity with industry written genres is strong; however, their frustration with the student output has also been the subject of regular complaint.

Assessment of student writing will become more critical if we use writing as one of the key drivers for accreditation. Both of our new accreditation standards have shifted to an outcomes-based model wherein ratable, measurable assessment is critical for evaluation. Key to our assessment of student writing is establishing those regularly offered, consistently measured assignments that map to our accreditation outcomes that have the effect of improving writing abilities, separate from those that are merely used to teach management concepts through writing assignments. Establishing a uniform metric for teaching and evaluating writing is essential to our program, and measurement and assessment focus will lead to a more deliberate and robust structure across the curriculum to assure that discipline-appropriate writing abilities are addressed at all levels of the curriculum and upon graduation, and that progress can be affirmatively measured.

One of the best outcomes of this effort will be the mapping of all curricular writing assignments to the proposed criteria and assessment rubrics. This will in turn allow us to discern the assignment types, and the teaching and
assessment techniques that will consistently yield high-quality, industry- and University-appropriate student writing.

The creation of the Moodle site, *Teaching Construction Writing: Guidelines for Faculty*, to guide adjunct faculty is essential to maintaining continuity and consistency of approach, and to avoiding redundancy and/or gaps in our curriculum-wide approach. The handbook will...

- Reinforce the principles of writing enrichment geared toward industry and University expectations across the program;
- Establish guidelines for conveying expectations about what constitutes good writing for any given assignment individually, and collectively for the course as a whole;
- Establish guidelines, when appropriate, for assessment techniques, applying rubrics, either explicit or implicit; applied uniformly against the genre identified within the writing plan, and
- Sequence the level and complexity of writing coursework across the CMgt curriculum to foster the desired writing abilities, and
- Reinforce how writing can be a "teaching moment" within our industry focused curriculum.

**PROPOSED RATING CRITERIA**

The key to measuring progress across the course and the curriculum is to have a generally uniform set of rating criteria that reflect the writing abilities we want students to possess upon graduation. Following the initial rating of student writing, the following list reflects a more granular set of rating criteria:

**1.0 - Communication is clear:** *Problems, proposals, procedures, and policies are articulated using concrete, unambiguous language.*

1.1 Is mechanically correct: Correctly applies grammar, spelling, word usage, and punctuation.
1.2 Language is clear: Meaning is easily and rapidly comprehensible and statements are not subject to multiple interpretations. Uses no unnecessary words. Sentences are not overlong or run together.
1.3 Presentation has satisfactory construction: Paragraphing is used effectively; bullet points and subheads used where appropriate.
1.4 Purpose or central objective is made clear.
1.5 Follows a coherent and logical progression (can be outlined easily): transitions are clear and show connected ideas.

**2.0 - Evidence is used:** *Documents, records, notes, data, and independent research are habitually maintained and comprehensively recalled, recited, and applied in support of critical thinking.*

2.1 Documentation is sufficient: Notes, minutes, and results are consistently, accurately, and comprehensively recorded without bias as to fact, date, time, and place.
2.2 Arguments have support: Relevant notes, data, research, and records are cited sufficiently in support of arguments or positions.
2.3 Evidence is used logically: data, research, and records are applied to analysis or problem solving in a logical manner.
3.0 – Problems, conflicts, and issues are objectively analyzed, recited, assessed, evaluated, and interpreted, and solutions are proposed.

3.1 Problems analyzed sufficiently: Issues, problems, or conflicts and their solutions are recited and/or accurately summarized.

3.2 Problems analyzed without bias, supported by facts.

3.3 Problem presentation is balanced: Varying relevant stakeholder positions are presented and contrasted toward a balanced perspective of the problem or conflict.

4.0 – Stakeholder concerns understood and addressed: Language, tone, authentic voice, and technical detail are used appropriate to the stakeholder perspective and ability to comprehend and in a manner that inspires confidence.

4.1 Audience level of comprehension is met: Target audience is consistently addressed by using understandable language and technical detail.

4.2 Is courteous and respectful: Tone that is appropriate to the audience and acknowledges its positions and concerns related to the issue is used in a manner that supports goodwill.

4.3 Sounds natural and friendly. Arguments or issues are portrayed using the writer’s authentic voice; is neither overly formal nor informal.

5.0 - Drawings, forms, and other industry-standard documents are correctly read, created, modified, and interpreted.

5.1 Standard documents used where needed: Contract forms are applied correctly for a given situation.

5.2 Documents contain all necessary information: Contracts, schedule of values, and other documents are accurately completed.

5.3 Document supporting materials well-explained: Drawings, contract documents, and forms are precisely interpreted.

6.0 - Technical material interpreted: Mastery and proper application of technical terminology, tools, jargon, and software is demonstrated.

6.1 Problems, proposals, or procedures are technically and factually correct.

6.2 Technical terminology and jargon is correctly used, and explained where necessary.

6.3 Software (scheduling, budgeting, and word processing) used on appropriate occasions; used correctly; and explained adequately.

6.4 Citations correctly used: included where needed to identify non-original information, in a complete and accurate manner.

6.5 Graphic content appropriately used: included when needed, clearly executed, and properly captioned and cited.
Section 5: SUMMARY OF IMPLEMENTATION PLANS, including REQUESTED SUPPORT, RELATION TO PREVIOUS IMPLEMENTATION ACTIVITIES, and SUSTAINABILITY PLANS

What does the unit plan to implement during the period covered by this plan? What forms of instructional support does this unit request to help implement proposed changes? What are the expected outcomes of named support?

How do the implementation plans of the 3rd edition Writing Plan relate to implementation activities from the 1st and 2nd edition Writing Plans? What has been successful? What was not successful? How do implementation plans build on what was learned from the first year of implementation? How do implementation plans anticipate the ongoing application of this final edition Writing Plan?

How will the unit move toward ownership of the implementation process after the end of eligibility for WEC funding? When needed, what will be sources of funding and resource support? How will ongoing evaluation and improvement of the Writing Plan take place?

Because of the nature of our program as an applied, adjunct-taught curriculum, there are limited opportunities for faculty to gather and brainstorm ideas and approaches to implementing the writing plan, or even to ideas about how to teach with writing. Their experience as industry professionals rather than teaching professionals leaves them typically less familiar with teaching methods and strategies for course design.

In light of faculty members’ ongoing professional obligations, we have unfortunately found it exceedingly difficult to implement the plans as outlined in our original submission of our 3rd Writing Plan. Since our faculty are by definition successful working professionals with busy schedules and other professional obligations, they are hard to incentivize via the lump payment system we’d originally devised for a series of “microgrants” to develop a teaching manual as outlined in our original 3rd Writing Plan submission.

In light of these difficulties, this revised proposal acknowledges proven strategies for meeting the time demands of busy faculty by integrating goals for our Writing Enriched Curriculum into our historically-established methods for interacting with faculty: required “one-to-one” consultations as a regular part of course reviews, end-of-semester course reflections by instructors, resources shared within a faculty community resource site, and faculty development activities, including required course reviews and periodic course updates and revisions.

Specifically, we propose the following revised implementation initiatives:

1. **Core course audits:**
While the initial WEC process and Writing Plans have been vital in mapping writing assignments across the curriculum, in the intervening years we’ve seen an increase in the need to fine-tune our understanding of which writing skills are being emphasized where and in what form, particularly in our program’s core courses that are not already designated Writing Intensive:

   - **CMgt 4011: Construction Documents and Contracts** (Instructors: Steve Hauser & Brad Creager)
   - **CMgt 4021: Construction Planning and Scheduling** (Instructors: Ken Styrlund & Dave Galetka)

---

5 Writing Intensive designated courses are CMgt 3001W Introduction to Construction and CMgt 4041W Specifications and Technical Communications for Construction Managers.
In order to better understand and improve the writing instruction, assignments, and assessment at work in these courses, we propose that a Research Assistant be hired to audit these select courses to obtain the following types of data:

a. Assignment materials as they pertain to writing instruction and assessment  
b. Instructional materials as they pertain to writing instruction and assessment  
c. Syllabi and course schedules that detail the sequence, timing, and dates of writing-related activities and assignments

Once this information has been collected, the RA will then proceed to analyze the information in the following ways:

- First, the RA will code the assignments and instructional materials to the Writing Plan’s list of Desired Writing Abilities. Doing so will provide an overall and programmatic view of how well we have been meeting our initial goals for instruction, which is particularly important for a mature WEC program like CMgt.
- Second, the RA will map the relationship between the different assignments in the program’s core courses to check for gaps, redundancies, and poor timing of instructional and assessment activities.
- Third, the RA will further map all of the above to the requirements for the program’s upcoming re-accreditation with their multiple accreditation agencies. Writing abilities are typically underserved in Construction Management programs and so being able to demonstrate an ongoing commitment to writing instruction makes CMgt a standout program from the perspective of accreditation. Creating data connecting specific courses and activities to accreditation requirements is vital to the overall process.
- In an ongoing way, the RA will also identify miscellaneous updates needed to the CMgt Student Writing Style Guide
- In coordination with the Faculty Director and the Writing Specialist, the RA’s Report will be used to make specific recommendations for course improvements to be used in targeted course reviews (see 2, below) and update process within the program.

2. Targeted Course Reviews:
Once all of our core courses have been audited, we will conduct a series of targeted course reviews. Conducting periodic course review is a long-established practice in the CMgt program (indeed, across all of CCAPs’ programs). However, routine course reviews take place only once every three years, and sometimes longer, depending on meeting and course scheduling logistics (for instance, if a review is scheduled for the summer but the course isn’t offered until the spring, it might be delayed to the fall or postponed into the next available cycle).

Further, standard reviews typically last only 90 minutes and cover a wide-ranging number of topics, including (among many other possibilities) items like choosing new textbooks, revising language to meet new outcome standards, developing new content-delivery platforms, converting courses to online or hybrid versions, reviewing student evaluations and teaching methodologies, and so on. Writing instruction, assignments, and assessment -- though often addressed -- necessarily can receive only limited attention.

In light of these limitations in the current course review process, supplementary course reviews that specifically target and wholly focus on writing aspects of core courses would help CMgt meet its commitment to improving writing instruction in a consistently applied manner. Targeted course reviews as proposed here would function in
addition to, and not as a replacement of, routinely scheduled course reviews. Targeted course reviews as proposed here would allow the CMgt program to concentrate on addressing writing-specific issues and to do so in a more timely manner (that is, when compared to “waiting” for the next scheduled course review) that better meets these pressing needs. This is an advantage for our implementation, as faculty members are familiar with both the practice and the requirement of review, and so targeted course reviews will not require any further faculty instructions or incentives.

In addition to the course instructor, also attending the course reviews will be the Faculty Director, the Research Assistant, an instructional designer, and the CCAPs writing specialist.

The purposes of these targeted course reviews will be as follows:

- To determine any writing-related issues that may have escaped the initial auditing process
- To cement the networked relationship between the course being reviewed and other courses in the curriculum
- To determine the scope of work needed for a course revision (see Step 3, below)
- To determine outcomes and goals as well as a timeline for the revision

We conceptualize these targeted course reviews as a one-time necessity. In other words, once the determinations of the targeted course reviews have been adopted and integrated into the core courses (via the revision process described below), we expect that further monitoring of and adjustments to these courses can be handled through the routine course review process. Additionally, any future course reviews of these core CMgt courses will include the CCAPs in-house writing specialist, who will help make sure that outcomes are being met and consistently applied. These future reviews would not require further funding from WEC or OUE.

3. Course Revisions:
Once course reviews have been completed and a scope of work has been established for each, we will begin the process of revising the courses. CCAPs has both a thoroughly-developed process and dedicated staff for course revisions and we hope to take advantage of both for this revision process.

In accordance with the determinations from the course review, courses will undergo varying levels of revision in order to meet Writing Plan standards and integrated instruction at the curricular level. As detailed above, the goal of these revisions is to create and implement a standardized set of writing genre instruction and assignments across our core courses, making us able to assess writing abilities year-by-year as students move through the program. For example, by incorporating writing assignments purposefully designed to have similar components in intro-level courses and higher-level courses, we will be able to concretely measure improvement between them, thus providing valuable data on students’ overall progress toward meeting program outcomes. Indeed, this revision process will be vital to advancing our goal of integrating writing assessment as a key, measurable component of our program’s outcomes (important for both our own internal assessment and external accreditation).

Faculty will be paid at the established rates for the different levels of revision (e.g., 25% revision, 50% revision, etc.). Since we hope to cement a firm and long-lasting writing curriculum (even if faculty members are replaced), we expect these revisions to be robust.

4. Update and Enhance Student Writing Style Guide.
Based on the materials garnered from the course audit as well as materials developed through the course reviews, we plan to extensively update and enhance CMgt’s Writing for Construction Managers: A Guide to Content and Style. We would like to fill in all gaps that remain on the site and, beyond that, expand it to encompass more writing
skills and formats, more instructional resources, and a deeper integration with existing course content. Further, conversion to a more searchable web platform is currently underway to make the site widely accessible to the industry; we hope one day to be an extensively-used writing resource in the Construction Management field, analogous to the role that the Purdue OWL serves for composition courses.

**Timeline for Implementing the 3rd Writing Plan Initiatives**

We have both faculty and staff ready to begin the processes outlined here as early as Summer 2018 and have tentatively identified a student Research Assistant available for the period proposed. We expect the entire implementation process to last until Summer 2019. The different activities will breakdown as follows:

- **Spring 2019**
  - Research Assistant collects assignments and instructional materials from faculty in identified courses
  - Research Assistant codes and maps materials to Writing Plan Desired Writing Abilities and ACCE accreditation requirements
  - Research Assistant prepares report detailing findings based on the above
  - Faculty Director and Writing Specialist review the RA’s completed report to determine schedule of course reviews

- **Summer/Fall 2019**
  - Course Reviews take place – meet faculty, outline adjustments and corrective measures, implement changes.
  - Identify gaps in CMgt Student Writing Style Guide and fill them

- **Fall 2019 and beyond**
  - Course revisions begin
  - Update and expansion of CMgt Style Writing Guide across curriculum

**Budgeting Revised Implementation Plans**

Based on the above timeline, CMgt would like to request **$19,575** in grant support for the Spring 2019-Fall 2019 period. The breakdown of funding is presented below. Please note that since it is impossible to know the extent to which course revisions will be needed until after course reviews take place beginning in Spring 2019, we are estimating that each of the 6 courses will need a 25% revision to align more effectively with our Desired Writing Abilities criteria and instruction methodology; any funds outstanding will be returned to the WEC program.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Funding period</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Assistant Course Audit &amp; Report Preparation</td>
<td>Spring 2019</td>
<td>160 hours @$15 = $2,400</td>
</tr>
<tr>
<td>Research Assistant Course Review Participation and Report Preparation</td>
<td>Summer-Fall 2019</td>
<td>320 hours @$15 = $4,800</td>
</tr>
<tr>
<td>Faculty Course Revision Stipend</td>
<td>Summer-Fall 2019</td>
<td>Estimate: 25% revision of 6 courses @ $1762.50/course = $10,5756</td>
</tr>
</tbody>
</table>

6 Instructors in CCAPS are paid for course revisions at a percentage rate of revision; this percentage is then applied to the formula of $2350 per course credit. A 25% revision of a 3 credit course thus equals 0.25 x 2350 x 3 = 1762.50.
EXPECTED OUTCOME
The implementation of the Construction Management 3rd writing plan, supported by the development and information strategies cited herein, is expected to show a direct and measurable improvement in student writing across the curriculum and satisfaction with the program, using analysis of student coursework, student focus groups, faculty discussion, and assessments of student writing over time.

“Creating a business proposal to solicit business from a client. By competing against both real classmates and imaginary industry norms/firms, I was able to understand the importance of being both complete and precise. This particular exercise also emphasized the ‘human’ aspect of persuasion and the importance of winning the job before executing it.”

Section 6: PROCESS USED TO CREATE THIS WRITING PLAN
How, and to what degree, were a substantial number of stakeholders in this unit (faculty members, instructors, affiliates, teaching assistants, undergraduates, others) engaged in providing, revising, and approving the content of this Writing Plan?

The Construction Management program is a unit of the College of Continuing Education, Applied and Professional Studies (APS) programs. The structure of the Degree and Credit program within the college is chartered to include only adjunct faculty, including both University faculty who teach on overload and practitioner faculty from the community; however, ACCE accreditation requires one full-time-equivalent faculty member. The CMgt program differs from typical academic departments within the University in that our faculty consists of one full-time-equivalent and 20+ adjunct faculty—all of whom are experts in their disciplines, who would benefit from support in the design and assessment of professional writing assignments. Only two faculty meetings are held per year. Special meetings are arranged well in advance to work around busy professional schedules. It is for this special adjunct cohort that investment in guiding the teaching of Construction Management using writing is centered with this plan.

To develop the original writing plan, Peter Hilger, a full-time-equivalent teaching specialist, led the initiative and drafted the first and second writing plans, supported by the Center for Writing, faculty, and department staff. The courses taught by Mr. Hilger were central to the program’s pre-WEC writing requirements. This revised plan written by Mr. Hilger is the result of an understanding of required management of the outcome/ability/competency course mapping initiatives required for re-accreditation. Steps taken since the second WEC plan approval include:

- Review of writing plan implementation results with faculty at the semi-annual faculty meetings
- Review of writing with individual faculty members as part of our ongoing course review procedures.
- Acceptance of writing as a key and interrelated component of the program accreditation outcomes central to both accreditation agencies.
- Presentation and discussion of the WEC findings and progress to the program’s advisory board, consisting of industry constituents;
- Presentation of our research and plan implementation to interested third parties that could benefit from our work (dissemination)
- Refinement of proposed rating criteria to be more defined and easier to assess;
- Incorporation of WEC plan criteria into all new and existing courses, and reviewed as part of the regular course review cycles for each class

7 Student survey response on a particularly useful writing assignment [ed: referring to Gizmo Distribution Project]
Revised and updated Writing Plan and presentation to faculty and staff.

It is no exaggeration to state that the Writing Plan has been well received among staff, industry Advisory Board members, Accreditation site team reviewers, third party groups and faculty.

**Section 7: CONNECTION TO STUDENT LEARNING OUTCOMES**

Briefly describe how the ideas contained in this Undergraduate Writing Plan address the University’s Student Learning Outcomes ([http://www.slo.umn.edu](http://www.slo.umn.edu)).

As a part of this fixed quality improvement process, the Writing Enriched Curriculum is an ideal metric to implement the University’s seven learning outcomes across each course through the course review process, and thus across the entire curriculum. The criteria set forth in this Writing Plan specifically reinforce the following University Student Learning Outcomes:

1. Can identify, define and solve problems
2. Can locate and critically evaluate information
3. Has mastered a body of knowledge and mode of inquiry
4. Understands diverse philosophies and cultures within and across societies
5. Can communicate effectively
6. Understands the role of creativity, innovation, discovery, and expression across disciplines
7. Has acquired skills for effective citizenship and lifelong learning

Furthermore, our program now has a mapped scaffolded outcome structure, as follows, from highest order to most granular order:

University Student Learning outcomes
Program Student Learning outcomes
Course Student Learning outcomes
Assignment Student Learning outcomes

The implementation of the Writing Plan within the current curriculum will clearly support the University Student Learning Outcomes, and the regular course review process, the standardization of language within the syllabi, and the development of a uniform, industry-specific approach to teaching with writing will assure that the results are not merely momentary, but broadly and completely infused into the future fabric of the program.

“If you don’t know how to write specific documents and effectively communicate by the time you graduate or are in the end of your JR year, you are seriously behind the curve. Our whole job is [to] be a huge communication hub between all the parties involved on a project. If you can’t communicate your thoughts or ideas, or ask specific question[s] so someone can look at it once and understand it, then your whole project is going to fail.”

- Student survey response on the importance of writing
### VI. WEC Writing Plan Requests

**Unit Name:**

**Unit Financial Contact Name/Email:** Kim Olson kimolson@umn.edu

**Chart string for fund transfer:** 100-10908-20028

---

**Financial Requests** (requests cannot include faculty salary support) drop-down choices will appear when a cell next to "semester" is selected

**Total Financial Request:** $19,575.00

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Semester 1: Spring 2019</th>
<th>Semester 2: Summer/Fall 2019</th>
<th>Semester 3: Spring 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Assistant, course audit and report preparation</td>
<td>$2,400.00</td>
<td>$2,400.00</td>
<td>$4,800.00</td>
<td>$1,800.00</td>
</tr>
<tr>
<td>160 hours @ $15/hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Assistant, course review and report preparation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 hours @ $15/hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Faculty course revision stipend</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estimate: 25% revision of 6 courses @ $1762.50/course = $10,575</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Website Maintenance &amp; Update</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 hours @ $15/hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Assistant, CMSWSG Website Maintenance &amp; Update</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>120 hours @ $15/hour</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Rationale for costs and their schedule of distribution**

---

**Service Requests** drop-down choices will appear when a cell in the "service" column is selected

<table>
<thead>
<tr>
<th>Service</th>
<th>Qty</th>
<th>Semester 1: Spring 2019</th>
<th>Semester 2: Summer/Fall 2019</th>
<th>Semester 3: Spring 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Description and rationale for services**
January 11, 2019

To: Peter Hilger, Faculty Director  
From: Robert McMaster, Office of Undergraduate Education  
Subject: Decision regarding WEC funding proposal

The Department of Construction Management recently requested the following funding to support its Writing Enriched Curriculum:

<table>
<thead>
<tr>
<th></th>
<th>Construction Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2019</td>
<td>Research Assistant, Course audit, report preparation (160 hours at $15/hr)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer/Fall 2019</td>
<td>Research Assistant, Course audit, report preparation (320 hours at $15/hr)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Summer/Fall 2019</td>
<td>Faculty course revision stipend (Estimate: 25% revision of 6 courses at $1762.50/course = $10,575)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Spring 2020</td>
<td>Research Assistant, CMSWSG Website Maintenance &amp; Update (120 hours at $15/hr)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
</tr>
</tbody>
</table>

CWB supports all funding requests.

All items above have been approved by the Office of Undergraduate Education, for a total of $19,575. These funds will be transferred in full during the FY19 to your department’s EFS account string: 1000-10908-20028.