Writing in the Majors Plan for Building Science
Comments from the University Writing Committee

Criterion	Comments, Questions, Suggestions
Principles 1 & 2: Provides opportunities for students to practice the kinds of writing most useful to the major	Writing assignments are similar to writing students will perform in the field and are appropriately geared towards future expectations. These include business letters, email correspondence, meeting minutes, job orders, and reports.
Demonstrates that most students in the major have multiple writing experiences	The accreditation standard the program follows establishes that communication and writing must be integrated into 33% of the total number of courses.
Principle 3: Provides opportunities for students to write for different purposes and audiences	Provides various opportunities for writing geared towards colleagues and faculty. Though not identified this way on the inventory of classes and assignments, many of the assignments as described appear to imply an imagined audience of clients or professionals.
Principle 4: Provides opportunities for feedback and revision	Many courses already include feedback and revisions and the plan includes details of how other assignments will be modified to include these elements.
Principle 5: Assessment plan identifies what the department is working on in relation to writing	Nicely developed assessment plan that provides faculty with information necessary to make decisions about improving writing instruction.
Principle 5: Assessment plan identifies what data will be collected to aid in decisions related to writing	We appreciate the systematic collection of data and the attention to performance by individual students and to the program as a whole.
Identifies steps necessary for implementation	Yes.

Other Comments:

The revision addresses all of the problems we raised with the earlier version. The Committee was especially appreciative of the efforts to think about what individual courses need as well as what the experience of the program as a whole should be. Although current classes are lacking opportunities for varied writing and revision, the proposed changes are adequate for correcting any deficiencies once implemented. The Committee was also impressed with the future plans for the thesis project, including evaluation with outside alumni. We believe this approach will improve the curriculum and strengthen the abilities of students who complete this course of study.

__X___ Plan is approved and will be posted on the OUW website January 14, 2011

McWhorter School of Building Science

Writing in the Building Science Curriculum Plan

1. Accreditation Requirements

The undergraduate degree in Building Science (BSCI) is accredited by the American Council for Construction Education. The requirements regarding writing in the curriculum are set out in Standard 103 – *Standards and Criteria for Accreditation of Postsecondary Construction Education Degree Programs*. Section 3.3.2 – *Subject Matter Requirements* requires a minimum of 2 semester hours of written communication and 8 hours combined oral and written communication. We currently have 12 hours of AU core curriculum English courses, a 3 hour technical writing class and a 3 hour communications class. There is an additional requirement to integrate oral presentations into the BSCI classes:

Oral presentation, technical writing, and/or business writing must be integrated into at least 33% of the total number of Construction and Construction Science courses. This integration is to be documented by the same means as other course content in these categories.

2. What kinds of writing do your students need to be able to do in order to be successful either as students, in their future careers or to enter a graduate program in the field?

During the spring 2010 semester members of the industry advisory council were asked to provide examples of the type of writing graduates of the Building Science program would be expected to produce during their early careers. Below is a summary of the responses:

a. General Business Letters/Memo's
    i. Sub-contractors
    ii. Thank you letters
    iii. Stating/Requesting information
    iv. Cover letters
    v. Bid Solicitation
b. Email correspondence
    i. Etiquette
    ii. Best practice
c. Meeting minutes
    i. Facts
    ii. Discussion
    iii. Action
d. Request for Information/Qualification
e. Response to Request for Proposal/Qualification
f. Contract Change Orders
g. Daily/Weekly/Monthly & Other Reports

3. Current Writing in the BSCI Curriculum Status

Following a comprehensive curriculum review conducted during 2008-09, the following classes incorporating writing assignments were identified. Building Science students are required to take all of these classes.

Class	Writing Assignment	Industry Example	Audience	Opportunities for students to revise their written work based on individual feedback
BSCI 2400 Structures	Students are asked to author one paragraph descriptions of concepts during class approximately 8 times per semester. No formal grading of the paragraph is done although students share with others.		Peers	After students share their paragraph with their peer, their peer is asked to provide written comments on the paragraph. Students are then asked to re-write the paragraph incorporating the appropriate comments within the paragraph
BSCI 3400 Structures II	Students are asked to author one paragraph descriptions of concepts during class approximately 8 times per semester. No formal grading of the paragraph is done although students share with others. Students write a safety plan for erection of the steel frame lab exercise. Students write a paper describing a specific topic in structural steel or wood of interest to them of approximately 3000 words.	Other Reports (Safety Plan)	Peers Instructor	Same opportunities for single paragraph as BSCI 2400. For the safety assignment, students submit a draft of the plan to the professor and to senior BSCI students for review and comment. Written comments are provided to the students, and they incorporate the appropriate comments in the final submittal. For longer papers that address a specific topic in structural steel or wood, no formal plan is in place at this time.
BSCI 3650 Project Controls II	Students are required to prepare a statement of qualifications in response to a Request for Qualification (RFQ). Students are split into teams of 5-6 and group members divided the work amongst the team. The writing portion included narrative sections but also	Response to Request for Qualification	Peers Instructor	The statement of qualifications assignment is currently assessed primarily on content and does not provide detailed feedback on writing quality.

	included charts and marketing type materials (much like a prequalification statement). Assignments are generally graded on content alone and little weight is placed on writing quality.			
BSCI 3700 Construction Safety	Students are required to obtain a copy of an OSHA incident report and prepare a short paper that discusses the cause of the accident, the violation, the root cause and the changes proposed to the safety plan. Students are required to have their draft reviewed by a third party prior to submission.	Other Reports	Peers Instructor	Students are required to have their draft submission formally proof read by another student and are given the opportunity to make revisions. The student is required to submit both the original and revised document.
BSCI 4600 Project Controls III	Students are required to write a letter about their background and why they chose a career in the construction industry. They are given an opportunity to improve their letter based on class review. They are also required to write a thank you letter to a Site Superintendent following a visit to a construction site.	Thank you letters	Peers Instructor	Students read both of their letters in class and get feedback from their peers and faculty and then have the opportunity to revise their work.
BSCI 4750 Soils and Equipment	Students are required to prepare a one page brochure describing various soil testing methods. Students also write letters to an imaginary boss describing a soil problem found on campus with a proposed solution.	General Business Letter	Instructor	No formal procedure currently exists for allowing students to receive feedback on their writing.
BSCI 4800 Contracting Business	As part of a term project students are required to write a professional financial narrative describing your company's current business and financial position, and what impact you believe the future planning reflected in your projected income statement will have. Students	Other Reports	Instructor	There is currently no process to get feedback that might help them improve.

	are also required to write an executive summary for internal purposes that includes an analysis of the strengths and weaknesses of the company (SWOT analysis). This is in the form of an internal memo – one page in length.			
BSCI 4850 Construction Law	Students are required to write a demand letter based on a project scenario.	General Business Letters	Instructor	Written assignments are graded and returned to the students with comments regarding errors and suggestions for improvements. The student has the option of revising the written assignment and resubmitting for an improvement in their grade. The improvement can increase the original grade by up to half of the points originally missed; i.e., a student receives a grade of 80 on their original assignment - the revised grade can increase this grade to a 90.

4. Proposed Changes (in italics) to Writing in the BSCI Curriculum Status

Class	Writing Assignment	Opportunities for students to revise their written work based on individual feedback
BSCI 3400 Structures II	Students write a paper describing a specific topic in structural steel or wood of interest to them of approximately 3000 words.	*Changes will be made to allow students to receive feedback on initial drafts of the writing by BSCI graduate writing tutor and/or the Auburn University Writing Center*.
BSCI 3650 Project Controls II	Students are required to prepare a statement of qualifications in response to a Request for Qualification (RFQ). Students are split into teams of 5-6 and group members divided the work amongst the team. The writing portion included narrative sections but also included charts and marketing type materials (much like a prequalification statement). Assignments are	*This assignment is an excellent candidate for student peer review of their written materials. Peer review could be facilitated within the groups utilizing a first and final draft. Then on the final deliverable detailed feedback on their written work would be given by the faculty member. As this is an early assignment writing quality would not be the primary grading*

	generally graded on content alone and little weight is placed on writing quality.	*criteria. For this assignment students would have an opportunity to receive feedback on their writing without feeling it severely impacted their grade.*
BSCI 4600 Project Controls III	Students are required to write a letter about their background and why they chose a career in the construction industry. They are given an opportunity to improve their letter based on class review. They are also required to write a thank you letter to a Site Superintendent following a visit to a construction site. *Future writing assignments will require students to write a letter to the Head of the McWhorter School of Building Science informing him of their experiences in the program, both good and bad. In the future students will also be require to write change order documents, Requests for Information (RFI), subcontracts and memos.*	Students read both of their letters in class and get feedback from their peers and faculty and then have the opportunity to revise their work.
BSCI 4750 Soils and Equipment	Students are required to prepare a one page brochure describing various soil testing methods. Students also write letters to an imaginary boss describing a soil problem found on campus with a proposed solution. Students are required to compose different types of business correspondence (i.e. RFI, Notice of Termination, Change Order Proposal). For the first piece of correspondence they compose they will be given a structure to follow.	*For both assignments, feedback will be provided on student submittals. Students will be given an opportunity to revise finished work and receive 1/2 credit for the missed points.* *For the business correspondence the students are provided feedback after the submission of the first final drafts. They are graded on their writing quality. For the remaining assignments a peer review system will enable feedback and revision. Utilizing this incremental approach the hope is to improve the students writing by providing early feedback and giving the students an opportunity to identify areas in which they may require additional assistance before it negatively impacts their grade.*
BSCI 4800 Contracting Business	As part of a term project students are required to write a professional financial narrative describing your company's current business and financial position, and what impact you believe the future planning reflected in	*Students will be encouraged to write their professional financial narrative in draft form and have it reviewed by their peers.*

	your projected income statement will have. Students are also required to write an executive summary for internal purposes that includes an analysis of the strengths and weaknesses of the company (SWOT analysis). This is in the form of an internal memo – one page in length.	

5. Assessment Plan for Writing in the Curriculum

The goals for student learning were developed over the spring and summer of 2009. The initial learning outcomes were developed by the faculty of the McWhorter School of Building Science during a January retreat. Following the development of the initial set of learning outcomes, these were then presented to industry stakeholders at six meetings throughout the south. Industry stakeholders were asked to evaluate the learning outcomes and to suggest modifications and additions.

The learning outcomes were compared with the student learning outcomes developed by the AU Core Curriculum Oversight Committee. Where there was a perceived duplication of learning outcomes, the duplicate outcome was removed. In light of these new learning outcomes, the goals and objectives of the BSCI undergraduate program were also revised. The following learning outcome concerned with writing was subsequently approved by the faculty:

2.1	Upon graduation Graduates of the McWhorter School of Building Science will be able to apply written, oral and visual means to communicate effectively in diverse settings

Three measures are used to gather information on how students are achieving the goals; one direct measure and two indirect measures.

1. One direct measure – evaluation of student's performance in BSCI 4980 Building Science Thesis. Course description: Individual project demonstrating mastery of curriculum content through the application of skills/knowledge to a theoretical construction company and project. Requires a written thesis and oral defense of work.

   Based on an evaluation of the students' performance in the thesis and subsequent meeting faculty and or industry jurors are asked to evaluate the student on how strongly they agree (on a five point scale) they have met the learning outcome.

2. Two indirect measures:

   a. An Exit Survey in which students are asked how strongly they agree (on a five point scale) they have met the learning outcome.

   b. Exit interviews with graduating seniors. Although not focused directly on evaluation of learning outcomes. Data gathered in these meetings can aid in continuously improving the curriculum.

The results regarding the learning outcome 2.1 are set out below:

a. Evaluation of student thesis

Semester	Outcome 2.1 Response (5 point scale)	All Learning Outcomes	
		Min	Max
Fall 2009	3.86	3.05	4.19
Spring 2010	4.00	3.65	4.04
Summer 2010	4.10	3.56	4.40

b. Student exit surveys.

Semester	Outcome 2.1 Response (5 point scale)	All Learning Outcomes	
		Min	Max
Fall 2009	4.17	2.97	4.47
Spring 2010	4.04	3.04	4.64
Summer 2010	4.29	2.98	4.57

The results from fall 2009 were discussed at our quality improvement meeting held in May 2010 and no action was required with regard to this learning outcome. Only outcomes with a mean response below 3.0 require action.

In addition to this formal assessment procedure, writing in the BSCI curriculum is an agenda item on our bi-weekly faculty meetings. Having this agenda item allows faculty to be aware of the writing assignments student are doing and also allows the school head to manage the demands on the graduate teaching assistant responsible for tutoring the BSCI students.

Future Writing in the Curriculum Initiatives

As can be seen from some of the previous tables we have not been able to integrate many of the examples of the type of writing graduates of the Building Science program would be expected to produce during their early careers. The faculty is currently reviewing the content and nature of BSCI 4990 Building Science Thesis which has the following course description:

Individual project demonstrating mastery of curriculum content through the application of skills/knowledge to a theoretical construction company and project. Requires written thesis and oral defense of work.

The initial review identified a need to incorporate writing exercises as part of the thesis that were more typical of the writing graduates will be expected to do in their early careers. The faculty also indicated willingness to pilot-test group thesis. As part of a pilot project in the spring 2011 semester three groups of three students will be working on group thesis projects. A requirement for the groups will be to hold weekly progress meetings and keep minutes of the meetings. These minutes will be reviewed by the instructor and feedback will be given.

As part of an overall plan to improve the quality improvement process for the Building Science program, Industry Advisory Council members and other alumni will be given the opportunity to serve on thesis juries and provide feedback on the student performance. This will enable us to gather data on not only how well industry stakeholders perceive the performance of the students writing but also the suitability of the writing assignments.