

# *Content Analysis Summary*

## *Critical Thinking change comments*

<i>Analyzer 1</i>	<i>N = 176</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
More emphasis on critical thinking		34	19%	+/- 5.9%	17%
small classes		18	10%	+/- 4.5%	9%
Better high school preparation		17	10%	+/- 4.4%	8%
Define Critical Thinking		13	7%	+/- 3.9%	6%
not related		13	7%	+/- 3.9%	6%
Misc		10	6%	+/- 3.5%	5%
change curriculum		9	5%	+/- 3.3%	4%
Thinking activities		9	5%	+/- 3.3%	4%
More appropriate Questions		8	5%	+/- 3.1%	4%
Class group discussion		7	4%	+/- 2.9%	3%
class practice		7	4%	+/- 2.9%	3%
Discussion		7	4%	+/- 2.9%	3%
experimental learning		7	4%	+/- 2.9%	3%
improve writing skills		7	4%	+/- 2.9%	3%
think different perspectives		7	4%	+/- 2.9%	3%
Practical not theoretical		6	3%	+/- 2.7%	3%
problem solving		6	3%	+/- 2.7%	3%
increase assessment of student skills		6	3%	+/- 2.7%	3%
courses should be more conceptual		4	2%	+/- 2.2%	2%
professor feedback on assignments		4	2%	+/- 2.2%	2%
Reasoning is needed		4	2%	+/- 2.2%	2%
Faculty Development		3	2%	+/- 1.9%	1%
<b>Total</b>		206			100%

- I believe that high school students need to have more critical thinking skill based classes to better prepare them for college level courses. I have found that many college freshmen have trouble coming up with answers to questions if they are not perfectly spelled out for them in the literature.
- completely rewrite elementary, middle, and high school curriculum
- Students do not appear to understand that what they are learning should not be held in a vacuum - they need to recognize that what they learn in one course has implications for most other courses they are taking - they need to understand that they are building the foundation of their lives and future - each piece needs to be absorbed and take forward to other classes. The students seem to forget what they have learned or should have learned in other classes and do not apply their knowledge in current classes.
- Move away from multiple choice exams tyoe assessment. We assess students at such a basic level of learning. They have been groomed for thrie entire eduction to take tests this way. We need to start freshmen year with breaking that habit. Use UNS 101 or whatever that course is to give students a taste of critical thinking test taking.
- My answer to this question carries through to all the questions. As a university, the single most important message we can send to students, prospective students, and citizens is that we will not admit those who are not prepared for a serious education. Until and unless we get away from this disastrous "consumer satisfaction/marketing" model of higher education, so called "education experts" will continue to wring their hands and ask what can be done to improve students' skills. Set serious expectations for entry into this university, let prospective students know that they will be expected to engage in a rigorous and not remedial course of study once they enroll here, and changes will likely occur in the larger society.
- In general I feel that at least my department and probably UNCG has a good curriculum that does an admirable job for a publicly funded university in educating students. I came here recently from a much more selective public university. The calibre of the students there was considerably higher.
- I don't know. Basic skills I would assume that students possessed by the end of high school are lacking in most.
- Encourage more critical thinking in intor courses and high school.
- Raise admission standards and require more revised writing exercises.
- higher admission standards. The call for "inclusiveness" and high skills puts unreasonable demands on professors. The likely result to that combination is just a lowering of standards, which sends the university backward, in my opinion.
- raise admissions standards
- Require a higher GPA for incoming students.

- UNCG should have much more rigorous freshman admissions standards. UNCG, given that it is a second-rate state university, admits anyone with a pulse. About 75% of my students have no business being enrolled in College. I know UNCG will NEVER raise its entry standards because it must compensate for the artificially low yearly tuition by admitting many students. I have taught at UNCG for 14 1/2 years, and I am irritated with I see getting worse each year: enrollment increases while, conversely, student intelligence and preparedness decreases.
- 100-200 level courses need to be thought of as "bootcamp" courses that are demanding. Current administrative concern with simply getting students to flow through these courses needs to be stopped. Administration needs to encourage assigning Fs when work is not up to national standards.
- Unfortunately I believe the issues have more to do with the way our educational system is "measured and compensated" for student enrollment. Therefore our acceptance standards seem to keep getting lower the skill level coming in is poor and these students are "passed" up the educational ladder regardless of the ability think critically.
- for all of these, there needs to be higher standards for prerequisites—beginning with college preparation (perhaps a transition semester where they work on basics) but then continuing on for courses needs to be on reasonable attainment of a prerequisite (getting a D in Math is not sufficient to be able to attain then advanced knowledge that assumes mastery of the original prerequisite—a D is not mastery, nor is a C- for that matter)
- emphasize the overall mission of an education in the tradition of the liberal arts and connect clearly to the requirements of an ever-developing and changing labor market.

*change curriculum*

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- More professional courses—less general ed courses
- Large lectures should be abolished; recognizing reality, such courses should at least be augmented by appropriate recitation groups, led by competent professional instructors. Using graduate students to teach lab sections is not sufficient, as many graduate students are just learning these skills themselves. Although I am using small group activities in my large lecture, it is still impossible to evaluate each student's contribution to the product of the group.
- We need to develop curriculum that provides them with the opportunity to engage in thinking critically about a given subject and then presenting their viewpoints (positive and negative) about the subject matter.
- I think that the entire GEC system should be entirely revised.
- Students should take a mandatory seminar that explains to them the difference between critical thinking and logical argumentation vs. personal opinions and conjecture. Our students do not understand the place of research in this world, as they do not cite evidence to back up their claims in a paper (even when told to do so). They do not know how to conduct proper literature searches, or what is meant by a literature search (and its purpose). Some type of 'University 101' course that explains to them the nuts-and-bolts of higher education is much needed.
- There should be a two semester long course which is required of all freshman in which a wide range of readings are dealt with specifically to develop critical thinking.
- The university should forge a clear working definition of critical thinking and incorporate it in the Gen Ed curriculum.
- More participatory learning in the areas of history, philosophy, sociology, political systems, etc. where students can apply knowledge.
- I support a required experiential component to the gen ed requirements that incorporate cross-disciplinary problem solving skills.

- Facilitate more in-class group discussion, reflective paper/exercises/ and written responses (essays) on exams.
- have more class discussion
- Perhaps more attention to discussion, class participation, and writing assignments. It is apparent in some classes that students do not think critically when evaluating texts, or more importantly, primary sources assigned.
- Increased assessment of students' skills and greater individualization in their course assignments. Many students expect a step by step formula for how to accomplish critical performance lessons assigned. Some are unable to apply higher level thinking skills(evaluation, analysis).Group assignments are challenging to some and repetitive for others.
- I find that it is not necessarily a matter of students being unable to think critically, but rather a matter of them demonstrating this ability during course-related discussions and in-class collaborative activities. I see more evidence of critical thinking in independent assignments. So, possibly focusing more on collaborative-oriented projects/assignments in gen. ed. courses may help provide the practice needed for students to become comfortable with taking on a more active role in these types of activities they often encounter in higher-level courses.
- I would like students to engage in processes that lead to questioning their own assumptions, no just analyzing arguments by others.
- Read a wider array of materials on a given subject, and provide opportunities for small group or class-wide discussions that result in short reflection responses, which will provide the instructor with a better sense of the students' critical understanding of the materials.

- Intentionally "practice" in classes.
- I'm not sure what is currently being done, but applying knowledge to practice is often a good support for developing critical thinking. Taking facts & applying them to a real life situation supports critical thinking as does analyzing facts, such as in a paper.
- Engage students with argumentative exchanges regarding current events & intellectual controversies.
- This applies to all of them....I've found that the more practice that students get in small assignments (rather than large term papers, reports, or projects) that build on themselves and ask them to write and think critically, the better they get by the end of the semester. Like anything, practice helps. But, only if they receive adequate comment and suggestion from us. If all they get is a check mark for doing the work, they won't learn anything. But, if we take the time to provide helpful feedback and require them to engage that feedback repeatedly, I find that they usually improve by semester's end.
- I think no child left behind has resulted in critical declines in all of these skills. Students come to class wanting to know 'the answer'... Some of our students are engaged & want to think, write & speak critically about content. Most, however, do not
- provide more opportunities for students to strengthen their ability to reason and think logically about issues
- more contact hours in the classroom

- Too many students pass mathematics courses without understanding the fundamental concepts. I hate for students to pass a course by blindly manipulating formulae without any understanding. It would be better if these students took courses that were more conceptual, but rigorous on that level.
- Focus should not be on memorization but instead on understanding concepts and how to use/apply those concepts. Even upper level students do not seem to understand that if a concept is understood it can then be adapted to how a business works.
- Application of learned theoretical information—not just discussion and memorization
- Write more essay exams that require conceptual integration rather than just opinion.

### *Define Critical Thinking*

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- Different disciplines have different definitions and examples of critical thinking. We might want to clarify what this term means for various disciplines and try to use a consistent vocabulary when we speak with students and evaluate their work.
- Make them more responsible for their own learning. Self Directed. Unfortunately it starts in grade school. Our system spoon feeds them.
- Move away from multiple choice exams to assessment. We assess students at such a basic level of learning. They have been groomed for their entire education to take tests this way. We need to start freshmen year with breaking that habit. Use UNS 101 or whatever that course is to give students a taste of critical thinking test taking.
- More seminar type class where students should read papers and analyze critically
- Develop methods to make students comfortable with critical thinking. Critical thinking seems to be way outside their comfort level, but I don't know how to do this except to require that they do more critical thinking.
- Many do not know what critical thinking skills are or what processes constitute critical thinking. They need to be taught what constitutes critical thinking and trained in the process of how to scaffold their thought processes. Training needs to be practical not just theoretical. Students should have received much of this training in public school.
- The problem is that Education students are caught in the trap of a larger culture which has us believing that their only role is to make sure their students can pass tests; the only course that focuses specifically on their critical thinking skills has been taken off the required curriculum. What we need is both a re-emphasis on critical thinking courses and a collective response to the robotization of public teaching.
- Continually make them accountable for making decisions. We use simulation in the SON. The students like this and feel that it does help with critical thinking, without putting patients at risk.
- Integrate discussion more thoroughly across freshman coursework to encourage them to THINK, not just copy down notes.
- More opportunity to "work through" thinking - practiced across curriculum. Students tend to think in "bytes".
- Students need to be able to analyze conflicting points of view. Afterward, they should state which position they support and why, using appropriate evidence to back up their claim.
- The university should forge a clear working definition of critical thinking and incorporate it in the Gen Ed curriculum.
- They need more critical processes before they get to UNCG

### *Discussion*

7

- Perhaps more debating

- More debates in Spanish in class.
- Engage students with argumentative exchanges regarding current events & intellectual controversies.
- There should be an emphasis on being able to explain both sides of a debate. All explanations should be justified (critical thinking is not about uninformed opinions).
- Write more papers. Debate issues in class.
- ask students to post 100-word abstracts of their oral presentations, papers, final essays to Blackboard or other communal Discussion Forums
- More interactive verbal engagement between faculty and students in the classroom

### *experimental learning*

7

- teach using case methods, experiential learning, etc.
- Make them more responsible for their own learning. Self Directed. Unfortunately it starts in grade school. Our system spoon feeds them.
- Encourage faculty to use more real world and allow the students to discuss and solve them.
- applied projects that relate to course curricula – that take them "outside" of the classroom and make learning more relevant and long lasting
- First, it depends upon when we consider this - they are better by end of senior year than junior year. Need more laboratory sections for upper level courses. But there is little time or faculty support for this.
- We need to ask them to actually think critically in a variety of contexts across ALL courses, regardless of major.
- add strategic thinking to assignments. Students have too much regurgitation and not enough application. Give them something to do that uses the content. An application.

### *Faculty Development*

3

- More time in the classroom to discuss critical thinking steps and skills. Faculty resources to guide students in this development.
- provide faculty with workshops so they can acquire strategies to help students develop critical thinking
- This is not going to be a popular suggestion, but perhaps the most effective solution is to educate and train the faculty on how this can be done in the classroom. I have an idea that critical thinking skills are important, but am not always confident about the ways in which I develop these skills at the 100 and 200 level.

### *improve writing skills*

7

- More writing assignments
- This is currently most effectively done in writing intensive courses. I think, in general, that this is a good way to attack the problem and a good way for the students to demonstrate their skills.
- More writing, writing, writing.
- smaller classes (i.e. more faculty!) and more writing-intensive courses across the university
- More writing assignments where students have to solve problems.
- More emphasis on independent research skills, analysis of written works.

- While by and large I am satisfied with the general level of critical thinking in my classes, improvement in this area comes down to the same issue as in writing (detailed below). If there aren't enough faculty members to substantively reduce class sizes, instructors cannot have a clear sense of each member of the class, allowing students to "hide" and not have to voice their ideas or engage in more meaningful ways.

*increase assessment of student skills*

6

- Increased assessment of students' skills and greater individualization in their course assignments. Many students expect a step by step formula for how to accomplish critical performance lessons assigned. Some are unable to apply higher level thinking skills (evaluation, analysis). Group assignments are challenging to some and repetitive for others.
- more essay questions on tests; more written short papers with analytic comments by faculty
- provide more opportunities for in depth readings/research...
- more instruction and practice in basic ENG 101 before they get to other courses
- Require them to do it at 100 and 200 level classes. Teach them how to think critically, understand their own learning, and apply this material during assessment.
- Perhaps it would be a good idea to ensure that courses are organized that encourage critical thinking. My understanding is that every department and even faculty member is at liberty to do what she or he wants. The energy we put into publishing in highly ranked peer review journals is not matched with a comparable effort to help faculty teach this and other skills. Other than student evaluations, we have no way to know what our colleagues are doing across the university. Unless the university gets serious about this lacuna, we will not solve this problem, especially if so many lower-level courses are taught by faculty on one or two year contracts.

*Misc*

10

- Stop teachers from giving extra credit. Don't let students turn in work late.
- Recommend that professors require students to use web 2.0 tools for submitting assignments.
- enhance confidence
- I think UNC-G is already doing a good job with this and all of the above. In our department (art), I see a great difference between the students in my 100 level classes and the students in the 200-level classes. This demonstrates that, while students may enter UNC-G lacking in some skills, we are quickly bringing them up to speed.
- expect higher levels of analysis of web information, e.g.
- Insist on more reading
- Provide more interactive learning opportunities and assess them. Multiple choice tests make it hard to analyze and synthesize information to make the leap to a higher level of thinking.
- Make sure talented professors are in the classroom.
- Eliminate standardized testing.
- have more student attendance required at faculty lectures and presentations, so modes of critical thinking are learned from example.

*More appropriate Questions*

8

- Faculty needs to be discouraged from giving multiple choice, matching and other sorts of questions on exams. More emphasis needs to be placed on questions requiring logical thought. Part of the issue here is that multiple choice, etc. are easier to grade (can use scantron).
- I should do more problem-solving exercises.
- discourage the "multiple choice" mentality of students
- Ask instructors to include more problem-solving exercises and analysis of material.
- Provide more opportunities for students to answer open-ended "what would happen if" questions that require application of factual knowledge.
- more challenges. Some of the application exercises I give to students are the first they have ever experienced. They should get this often and earlier.
- I try to give questions/assignments where students have to explain their response choice or convince me that their answer is correct
- smaller classes to enable more contact with students, smaller classes and lower teaching load so we can assign appropriate assignments

*More emphasis on critical thinking*

34

- Faculty needs to be discouraged from giving multiple choice, matching and other sorts of questions on exams. More emphasis needs to be placed on questions requiring logical thought. Part of the issue here is that multiple choice, etc. are easier to grade (can use scantron).
- Their freshman seminar or freshman experience should be wholly about this.
- Provide assignments that use case study analysis skills to students in 100 level courses so that they get used to thinking through as opposed to memorizing course material. Alter course point scoring systems to emphasize integration and other higher order thinking skills and give the least number of points for rote learning.
- The time for more assignments dealing with critical analysis of texts. More exposure to basic academic theoretical articles... nothing too taxing, but at least show examples of academic discourse and to open up avenues for differing critical lenses.
- How they can apply critical thinking to their own lives, such as incorporating how their purpose and dreams influences the choices that they make in life - within and outside college.
- We should consider requiring incoming freshman to take a critical thinking course where they are taught how to reconstruct and evaluate arguments. This could be a large lecture course or, better, a small (25 or less) seminar style course.
- More focus in courses that actually teach critical thinking skills, and higher expectations from faculty for their students to be able to think critically.
- Perhaps more attention to discussion, class participation, and writing assignments. It is apparent in some classes that students do not think critically when evaluating texts, or more importantly, primary sources assigned.
- It may be too late at the college level to make significant changes in thinking styles that begin at the elementary school levels. Critical thinking skills are too scary for too many in a conservative consumerist society and public schools are constantly pressured to avoid any reading or discussion that might be controversial or outside the mainstream. We can continue to provide experiences for critical thinking for our students at the university level, but it is difficult to make much progress given the magnitude of the problem.
- Insure that all courses incorporate at least some kind of critical thinking skills in the goals for the course, and insure those goals relate to specific activities in the syllabus.

- -required critical thinking content/assignments/excercises in all courses, require/reward faculty to learn and to teach critical thinking
- Better need to help students integrate information and more hands-on skill practices that engage them in critical thinking.
- Develop methods to make students comfortable with critical thinking. Critical thinking seems to be way outside their comfort level, but I don't know how to do this except to require that they do more critical thinking.
- Students may need a specific course to develop these skills. They seemed concerned with correct answers and tests, but not in evaluating information or ideas.
- Each course needs to strongly emphasize critical thinking skills. And students need to understand the importance of them. Students do not try to develop them and they just want an easy way to get better grade.
- Develop evaluation techniques that require critical thinking skills.
- Place less emphasis on memorization in introductory courses, more on problem solving.
- Instructors themselves emphasise critical thinking. They demonstrate critical thinking in their own deliveries of information.
- Provide more interactive learning opportunities and assess them. Multiple choice tests make it hard to analyze and synthesize information to make the leap to a higher level of thinking.
- More time in the classroom to discuss critical thinking steps and skills. Faculty resources to guide students in this development.
- Students should improve their ability to assess the logic of arguments, including assessing whether the conclusion is supported by the evidence presented.
- Incorporating instructional methods and evaluation processes that teach and evaluate critical thinking skills. Research has shown critical thinking skills are best taught within a specific context; not a generic "critical thinking" course.
- Assignments specifically designed to cultivate these skills.
- I still am finding a lot of "magical thinking" among juniors and seniors. Some of this is due to their developmental age of late adolescence, but more due to an inadequate connection between science and math. They understand the basics, but really need a good Aristotelian logic course (or two!!).
- More focus on critical review and problem solving
- Do not think the students even understand what critical thinking is about in the instant gratification world they live in. Critical thinking takes reading and reflecting - both of which are not being practiced by students.
- Encourage more critical thinking in intor courses and high school.
- Many of the students I have who are lacking in critical thinking are students who are thinking of their education in a vocational way. They are interested in getting a good job and making money, and are not interested in thinking well or critically. We are living in a culture that values money over everything else.
- undergraduates at the 100 levels seem to expect faculty to spoon feed them everything. they need to learn to process information and select answers to questions that use critical thinking
- Require them to do it at 100 and 200 level classes. Teach them how to think critically, understand their own learning, and apply this material during assessment.
- Perhaps we can simply ask them to do more of this. Stop giving them information on a spoon,.

- Speaking for myself, it is not so much the professor who needs to change his/her course content or implement new approaches to simulate critical thinking. It is just a slow process that takes time, energy, effort, and commitment. Some students apply themselves successfully, others don't for multiple reasons and they remain a majority in the classroom.
- While by and large I am satisfied with the general level of critical thinking in my classes, improvement in this area comes down to the same issue as in writing (detailed below). If there aren't enough faculty members to substantively reduce class sizes, instructors cannot have a clear sense of each member of the class, allowing students to "hide" and not have to voice their ideas or engage in more meaningful ways.
- Perhaps it would be a good idea to ensure that courses are organized that encourage critical thinking. My understanding is that every department and even faculty member is at liberty to do what she or he wants. The energy we put into publishing in highly ranked peer review journals is not matched with a comparable effort to help faculty teach this and other skills. Other than student evaluations, we have no way to know what our colleagues are doing across the university. Unless the university gets serious about this lacuna, we will not solve this problem, especially if so many lower-level courses are taught by faculty on one or two year contracts.

*not related*

13

- unsure
- I am sorry to say that I have nothing useful to offer.
- Less regurgitation of information and memorization
- Students should not
- Take a basic course in Logic.
- n/a
- Unknown
- n/a
- students making more effort
- have more opportunities for them to do just that.
- at the 100 to 200 level I'm not sure
- none
- N/A

*Practical not theoretical*

6

- Many students are not able to view situations outside of their own perspective. I find that middle class students especially have a difficult time understanding concepts such as poverty. I think the only way to help students demonstrate more critical thinking in this regard is for them to experience first hand the affects of poverty and other social problems similar to this. Otherwise, they continue to be critical of the victims who suffer from the problems rather than understanding how social forces contribute.
- More connections to out of classroom experiences that tie into curriculum.
- focus on thinking beyond opinion and referencing of other sources that helped them to think beyond the obvious.

- Many do not know what critical thinking skills are or what processes constitute critical thinking. They need to be taught what constitutes critical thinking and trained in the process of how to scaffold their thought processes. Training needs to be practical not just theoretical. Students should have received much of this training in public school.
- make this relevant to their lives
- I think students need more opportunities to practice this skill. I instruct a CSD Observation Course that requires students to observe clinicians working with clients and then answer a series of questions about the observation. I find they improve when explicit feedback is given about their written responses.

*problem solving*

6

- Place less emphasis on memorization in introductory courses, more on problem solving.
- problem-solving based instruction
- More opportunities for problem-solving and independent projects.
- More focus on critical review and problem solving
- Ask instructors to include more problem-solving exercises and analysis of material.
- More writing assignments where students have to solve problems.

*professor feedback on assignments*

4

- This applies to all of them....I've found that the more practice that students get in small assignments (rather than large term papers, reports, or projects) that build on themselves and ask them to write and think critically, the better they get by the end of the semester. Like anything, practice helps. But, only if they receive adequate comment and suggestion from us. If all they get is a check mark for doing the work, they won't learn anything. But, if we take the time to provide helpful feedback and require them to engage that feedback repeatedly, I find that they usually improve by semester's end.
- Have them write more often with feedback from professors in both low and high stakes assignments
- Students need to read more and should evaluate the readings, comment on them, discuss them in class and in Blackboard.
- Smaller courses providing more opportunities for students to verbalize ideas in speech and writing in the first two years, with more feedback from professors about how to think through issues and problems.

*Reasoning is needed*

4

- Require the Reasoning and Discourse requirements to be completed by end of the freshmen year.
- I don't know if this is something that can be taught in a couple years of college. I think it's gained more through experience than coursework.
- Fewer classes aimed at transmitting information, and more aimed at developing and challenging reasoning.
- Students need the ability to reason logically: both inductive and deductive logic is lacking in many students.

*small classes*

18

- Smaller classes with more intense focus on literature.

- Large lectures should be abolished; recognizing reality, such courses should at least be augmented by appropriate recitation groups, led by competent professional instructors. Using graduate students to teach lab sections is not sufficient, as many graduate students are just learning these skills themselves. Although I am using small group activities in my large lecture, it is still impossible to evaluate each student's contribution to the product of the group.
- smaller classes, more ability to have students write often, work in small groups, etc.; with 50 to 70 students these skills cannot be taught very effectively (ditto for writing and speaking)
- Smaller classes with more individual attention to individuals
- Smaller class sizes (fewer students enrolled in each course)–which means, more instructors. I teach these skills, but that becomes more and more difficult as student enrollment increases without a corresponding increase in faculty and other resources.
- more smaller classes
- smaller classes with more opportunity to interact with students
- provide more opportunities for students to write and speak in class - this requires smaller class sizes.
- Smaller classes at the UG level which allows for more opportunities to assess skills and provide more remediation opportunities.
- We depend upon far too many large lecture section courses taught by part-time instructors. They are a disaster for many of these foundational skills
- Read a wider array of materials on a given subject, and provide opportunities for small group or class-wide discussions that result in short reflection responses, which will provide the instructor with a better sense of the students' critical understanding of the materials.
- smaller class size, more rigorous admission standards
- Small classes to allow discussion
- More reading, writing, case study with debate in subject matter with smaller classes. More emphasis on integrating across disciplines and less emphasis on application in isolated situations.
- Smaller classes at the lower levels to permit exchange between students and between the students and the professors. Smaller class sizes to permit the development of writing skills (with detailed instructor feedback) that in turn develop and promote critical thinking from their first semester in college.
- smaller classes with more writing
- smaller classes to enable more contact with students, smaller classes and lower teaching load so we can assign appropriate assignments
- Significantly reduce class size.

- We need to keep in mind that sometimes observed deficiencies in this area reflect a given 18-20 year olds level of cognitive development as well as emotional maturity. Thinking and feeling are linked. Many of our entry level students are just on the cusp of developing the capacity to think abstractly, so they won't do it until they can do it. Also, some students are not emotionally ready to experience nuances; to confront (at an emotional level) the idea that something can have BOTH positive and negative aspects when viewed from different perspectives. They experience a teacher's efforts to expose them to this possibility as in some way improper and off-putting. The discomfort they feel emotionally is projected out onto the lesson, or the material, or the teacher or class, which then become objects to avoid and resist. So, cognitive skills are dependent to some extent on emotional skills and emotional/social intelligence, and we need to keep that in mind. One way to do that is to tailor expectations in entry level courses to the emotional and developmental level of the students. Also, demonstrating critical thinking skills is impacted by a student's basic knowledge of the world. It is hard to think critically about an issue if you know very little about it. Also, reading early builds cognitive abilities for abstraction and conceptual analysis. So, tightening admission standards is one approach, so as to identify and admit students who demonstrate high level verbal skills, established reading habits, and active participation in High School debate clubs etc is relevant. How much do we really know about our entering students "aquired taste" for reading, thinking, analysing and discussing? High School grades and SATS don't capture this issue of whether a student has acquired and made his/her own the habits of inquiry, reading and thinking. Lastly, I recommend that we find ways to put more faculty in the classroom and to make those classes smaller. We also need to seek out and hire faculty who are capable of and interested in doing the labor intensive work of meaningfully transforming students despite their resistance. Teaching is a skill set / art form we don't yet select for in hiring practices. Also, finding ways to link courses in meaningful ways with overlapping assignments that require students to apply information and skills from one experience in another class can all help. Maybe through "learning communities" we can link courses with high levels of information content to courses that use that information in exercises that require analysis, writing, and presenting, and then marry those courses to other experiential / service learning activities that deal in a hands on way with the same topics being taught and analysed in other courses. There is no silver bullet. A quicker solution might be to make 2 years of community or military service between HS and college a requirement for federal financial aid! Some of this is just maturity and developmental level.
- Students do not appear to understand that what they are learning should not be held in a vacuum - they need to recognize that what they learn in one course has implications for most other courses they are taking - they need to understand that they are building the foundation of their lives and future - each piece needs to be absorbed and take forward to other classes. The students seem to forget what they have learned or should have learned in other classes and do not apply their knowledge in current classes.
- They need to practice taking information given and putting the information into new situations. They typically will only remember the specifics they think are important and lose this immediately.
- Better need to help students integrate information and more hands-on skill practices that engage them in critical thinking.
- Engage students with argumentative exchanges regarding current events & intellectual controversies.
- We need to ask them to actually think critically in a variety of contexts across ALL courses, regardless of major.
- Have students actually DO it! The level of confusion and anguish that I see when I try to get them to analyze something makes me think that in many other classes they merely regurgitate what they're fed in class and are not asked to think for themselves.

- incorporate more higher order thinking activities
- Exams and HW assignments should include thought provoking questions. There should be less emphasis on routine manipulations.
- I don't know if this is something that can be taught in a couple years of college. I think it's gained more through experience than coursework.
- provide more classroom activities that are analysis in nature. test questions that are more applied.
- -required critical thinking content/assignments/exercises in all courses, require/reward faculty to learn and to teach critical thinking
- marker for logical and critical thinking skills
- Students need to learn "metacognition"...accurate self-assessment. The most common thing I heard from failing/struggling students was "I understood this before the test."
- Many do not know what critical thinking skills are or what processes constitute critical thinking. They need to be taught what constitutes critical thinking and trained in the process of how to scaffold their thought processes. Training needs to be practical not just theoretical. Students should have received much of this training in public school.
- basic principles of logical analysis

# *Content Analysis Summary*

## *Information literacy skills change comments*

<i>Analyzer 1</i>	<i>N = 118</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
Not Apply		28	24%	+/- 7.8%	21%
More Research		21	18%	+/- 7.0%	16%
Define Information Literacy		17	14%	+/- 6.4%	13%
Evaluate Sources		14	12%	+/- 5.9%	11%
Search Strategy		12	10%	+/- 5.5%	9%
Delivery		8	7%	+/- 4.6%	6%
Meet Expectations		7	6%	+/- 4.3%	5%
Raise Admissions Standards		6	5%	+/- 4.0%	5%
Technology Competency		5	4%	+/- 3.7%	4%
Faculty Development		4	3%	+/- 3.3%	3%
Clarify Plagerism		4	3%	+/- 3.3%	3%
Limit Class Size		3	3%	+/- 2.9%	2%
Common Standards		1	1%	+/- 1.7%	1%
Assessment		1	1%	+/- 1.7%	1%
<b><i>Total</i></b>		131			100%

### Assessment

1

- basic quizzes

### Clarify Plagerism

4

- Students should learn how to use the computer. While today's students think they are computer savvy, they only know enough to get themselves into trouble. I often see plagiarism and internet research results that have opened the student up to possible identity theft. Could there not be a general education marker course to teach computer security, copyright, etiquette issues to students. Many other universities find it worthwhile for their students.
- Students are particularly savvy with respect to use and abuse of online resources, but are growing increasingly distant from print and traditional sources that are not yet on line. The use of such materials needs to be maintained in the classroom despite our tendency as faculty to online information. The two major problems that I think need to be addressed with respect to the growing mountain of electronic information are critical assessment and proper use of the information (i.e., what is plagiarism).
- Students in general know what to do with software but do not know how to find material in library searches. They also do not know how to compile a biliography and to cite material to avoid plagiarism.
- It's interesting how we think our students are tech savvy because they are on the computer or texting all the time. But ask them to use something besides Facebook and they are lost. One way to help them would be to incorporate more online hybrid coursework. Every dept should identify how information literacy skills are incorporated into their courses.

### Common Standards

1

- It's interesting how we think our students are tech savvy because they are on the computer or texting all the time. But ask them to use something besides Facebook and they are lost. One way to help them would be to incorporate more online hybrid coursework. Every dept should identify how information literacy skills are incorporated into their courses.

### Define Information Literacy

17

- Different disciplines have different needs for information literacy. These differences may need to be clarified. Learning to use databases and computer programs, for example, is just a tool for developing critical thinking, not a skill on a level with it.
- Again, I do not understand the term "Information Literacy" (??)
- Students do no have a clear understanding of how and when to use Excel software - I find that many students have never been exposed to Excel.
- Since all students do not have laptops anymore, this is increasingly difficult to assess.
- They need to be able to follow written directions to complete an assignment correctly.
- Instructor need to consistantly connect course content to what's happening in the world.
- Make them accountable for learning about the world. Their knwoledge of geography is abysmal.
- ??

- Insure that students are exposed to a broad liberal education in the first two years.
- Have students tell/write stories with corss referenced information.
- Not sure
- Is the focus here on skills related to gathering information?
- Not sure
- Do not know.
- Not sure.
- I don't know what you mean by "information literacy." Therefore, I chose "not observed" for my answer above.
- This seems redundant – isn't all literacy a subsection of "information"?

### *Delivery*

8

- More focus in GEC and major courses that will enhance students' information literacy skills.
- A basic writing course may be able to provide students with these skills.
- Journal club
- marker for information literacy skills
- all students should have to be oriented to the university library sytsem as part of general studies and/or through a major area of study
- Seminars that educate them about the purpose of research and why, as a university student, they are expected to develop a body of knowledge that is based in research.
- reinstate laptop requirement for freshmen.
- Reinforce the importance of information literacy with at least one mandated workshop in the freshman year, insuring that all students know how to use library resources, data bases, and research guides.

### *Evaluate Sources*

14

- I think a precursor to this is teaching students how to reason and think critically so that what counts as "information literacy" is placed in the proper context. Just memorizing facts or knowing how to locate information on the web, etc., without the capacity to critically reflect on this information is, is not enough.
- Recognize trustworthy sites
- They do ok with this. However, deciding between reliable information and dubious information can be a problem for web-based information. I don't let them use web citations unless they are online peer-reviewed journals.
- Students are particularly savvy with respect to use and abuse of online resources, but are growing increasingly distant from print and traditional sources that are not yet on line. The use of such materials needs to be maintained in the classroom despite our tendency as faculty to online information. The two major problems that I think need to be addressed with respect to the growing mountain of electronic information are critical assessment and proper use of the information (i.e., what is plagiarism).
- opportunities to become (more) media literate – so that they do not solely depend on "what i read on the internet" – they need to become more discerning of the information they obtain

- Too many students believe that if they can't google it or find it in Wikipedia, it's not worth tracking down/it's too much work. We're struggling against current culture in some ways; expectations need to be made clear from the 1st semester on about learning to think critically for yourself instead of looking for something pre-digested on the internet.
- Teach students how to research the literature to include defining a credible source, critique it, compare/contrast multiple perspectives and synthesizing one's own perspective using the literature to support the rationale.
- Our students have a difficult time separating what they believe (feel) from what they know (fact). Both are important, but are very confused by the students.
- Students often come to higher level classes with an inability to access and understand how to use databases in their writing.
- I am concerned about over use of the Internet as a primary source. Many students don't seem to understand that many Internet sites are not accurate.
- The students need to be readers. They are not! University will not teach them to be that.
- Instructors could lead their classes in short workshops on "media consumption," pointing out areas of misinformation and bias that are commonly found in contemporary media reports on their courses' larger themes.
- Provide explicit instruction in locating, evaluating, and using information resources. Assess outcomes.
- students need to understand the difference between acceptable sources within academia and how to evaluate and position other sources

#### *Faculty Development*

4

- More courses should require the use of information technology. Faculty need help staying current in this area, so more development funds, workshops, etc. should be made available.
- Students need to be better read. They do not seem to be reading newspapers, magazines, and other mind expanding journals. MANY HAVE NEVER BEEN TAUGHT HOW TO READ A BOOK. Training needs to be provided as pre-service and in-service programming.
- faculty need training in this area
- More effectively use the resources that the library and their staff have to seek and evaluate information. Continue to provide faculty development workshops to help us incorporate information literacy skills into our syllabi.

#### *Limit Class Size*

3

- smaller classes would allow for clear library assignments; in lieu of smaller classes, then appointment of trained teaching assistants
- Research papers and projects of various kinds are the best way to teach these skills, but again, those are challenging to implement in large classes.
- smaller classes to enable more contact with students, smaller classes and lower teaching load so we can assign appropriate assignments

#### *Meet Expectations*

7

- They have no trouble with IT.
- Again, it's okay. Our student population is diverse, so requiring more or providing more options to choose from might help.
- Fairly satisfied
- Pretty good at this.

- No change is needed
- Adequate at present
- Invite the library staff into each major more often. They are fine as is.

### *More Research*

21

- Research could play a bigger role in the classes I teach
- assign projects and other independent assignments
- I cannot think of anything beyond practice. Our upper level courses should require students to engage in progressively more in depth and extensive research, demand the use of original scholarly literature, and teach and require effective citation and documenting of sources. Maybe cap stone requirements in the major can handle this area best. Also, linking specific assignments to attending library research workshops could help link knowledge and practice/use of it in ways that make things stick for students.
- annotated bibliographies, e.g., where appropriate
- Couched within the projects and presentations must be assignments that include proper citation techniques, how to conduct research, what are appropriate articles and documents that should be used in data collection and that informs you or your reader about the material being presented.
- All students should take information literacy courses
- Application of these skills in all coursework would support refinement.
- These skills are most appropriately demonstrated as part of writing term papers.
- More courses should require the use of information technology. Faculty need help staying current in this area, so more development funds, workshops, etc. should be made available.
- More serious engagement with crafting research papers & using peer-reviewed literature in lower-division courses.
- Again, use info literacy to solve problems within their discipline.
- More classes should have exercises requiring library and online research.
- Create assignments for short descriptive bibliographies that summarize each entry.
- more library skills and media literacy resources
- Have them gather information on a topic
- continue to gather and present information.
- Require more research papers.
- Research papers and projects of various kinds are the best way to teach these skills, but again, those are challenging to implement in large classes.
- More effectively use the resources that the library and their staff have to seek and evaluate information. Continue to provide faculty development workshops to help us incorporate information literacy skills into our syllabi.
- This would require real research assignments in several gen ed courses. Ideally, this would occur in a variety of areas: social sciences, natural sciences, humanities, etc.

- Why not require students to use the library for term papers? A final comment: while I applaud being asked to answer these questions, I recommend appointing a committee that will engage in a long-term study of what is going on in university classrooms. Why not spend time with each department and its members to identify what they are doing before we decree new policies? Instead of spending time developing GEC goals, for example, why not spend the necessary time to figure out what faculty are doing in their classrooms?

*Not Apply*

28

- no comment
- n/a
- more professional courses—less general ed courses
- I have not been able to observe these skills in a classroom setting.
- I am sorry to say that I have nothing useful to offer.
- NA
- n/a
- Same as above.
- See above
- ???
- See responses above
- n/a
- Learn how to concentrate in greater chunks of time.
- N/A
- n/a
- na
- ?
- See above
- same as above
- NA
- none
- More emphasis on good studying habits, note taking, etc.
- Help students understand relevancy and require fundamental knowledge.
- NA
- N/A
- see above
- No suggestion
- Expose students to readings that are relevant to our contemporary world.

- completely rewrite elementary, middle, and high school curriculum
- I see a large problem in thinking for ones self. Students want a "recipe" to follow for how to complete an assignment. I suspect the problem's roots are to be found back in middle school or high school (and/or at home). Resourcefulness and independence need to be fostered more in all areas. The university could start by eliminating the need for advising codes - students read the fact that they need to see their advisor for their code as meaning that the advisor is then responsible for course selection, etc.
- Raise admission standards.
- UNCG should have much more rigorous freshman admissions standards. UNCG, given that it is a second-rate state university, admits anyone with a pulse. About 75% of my students have no business being enrolled in College. I know UNCG will NEVER raise its entry standards because it must compensate for the artificially low yearly tuition by admitting many students. I have taught at UNCG for 14 1/2 years, and I am irritated with I see getting worse each year: enrollment increases while, conversely, student intelligence and preparedness decreases.
- Require a higher GPA for incoming students.
- raise admissions standards

- Demonstrations (perhaps by the library) about how to use certain resources at their fingertips to retrieve the necessary information.
- I think that it is important that students have more practice pulling knowledge out of text based on the information given. They are very good at defining A if it is defined specifically in a paragraph, however, if the paragraph says  $A+B = C$  they have trouble defining C based on the sum of the definitions of A and B.
- basic library lit search on fundamental concepts
- Assignments should include problems where students have to search for information on their own. The course text alone should not suffice.
- problem solving emphasis rather than rote regurgitation of information in courses.
- basic workshops in on-line searches, e.g., searching published research for certain topics
- Instructor should ask students to bring at least 4 newspaper clips related to class materials for any particular week and share with the class. It can be easily integrated with class participations grade...
- Students in general know what to do with software but do not know how to find material in library searches. They also do not know how to compile a biliography and to cite material to avoid plagiarism.
- Teach students how to research the literature to include defining a credible source, critique it, compare/contrast multiple perspectives and synthesizing one's own perspective using the literature to support the rationale.
- Students need to be better read. They do not seem to be reading newspapers, magazines, and other mind expanding journals. MANY HAVE NEVER BEEN TAUGHT HOW TO READ A BOOK. Training needs to be provided as pre-service and in-service programming.
- Students often come to higher level classes with an inability to access and understand how to use databases in their writing.

- It's interesting how we think our students are tech savvy because they are on the computer or texting all the time. But ask them to use something besides Facebook and they are lost. One way to help them would be to incorporate more online hybrid coursework. Every dept should identify how information literacy skills are incorporated into their courses.

### *Technology Competency*

5

- Students should learn how to use the computer. While today's students think they are computer savvy, they only know enough to get themselves into trouble. I often see plagiarism and internet research results that have opened the student up to possible identity theft. Could there not be a general education marker course to teach computer security, copyright, etiquette issues to students. Many other universities find it worthwhile for their students.
- Different disciplines have different needs for information literacy. These differences may need to be clarified. Learning to use databases and computer programs, for example, is just a tool for developing critical thinking, not a skill on a level with it.
- "Fluency" with information technology requires more intellectual abilities than computer skills. I personally like producing e-portfolios but our current capabilities for this are terrible. Blackboard is cumbersome and not really portable.
- More courses should require the use of information technology. Faculty need help staying current in this area, so more development funds, workshops, etc. should be made available.
- more library skills and media literacy resources

## *Content Analysis Summary*      *Mathematics change comments*

<i>Analyzer 1</i>	<i>N = 105</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
more emphasis on math		26	25%	+/- 8.3%	23%
Not related		16	15%	+/- 6.9%	14%
Misc		13	12%	+/- 6.4%	11%
relate math to realworld		11	10%	+/- 5.9%	10%
basic knowledge defficiency in public schools		10	10%	+/- 5.7%	9%
integrate math at all levels		10	10%	+/- 5.7%	9%
quantitative literacy		3	3%	+/- 3.2%	3%
teaching way should be changed		3	3%	+/- 3.2%	3%
research and analysis		3	3%	+/- 3.2%	3%
require students to take more mathematics classes		3	3%	+/- 3.2%	3%
handson project		3	3%	+/- 3.2%	3%
Promote math lab		2	2%	+/- 2.6%	2%
require general statistics of all students		2	2%	+/- 2.6%	2%
improve math skills		2	2%	+/- 2.6%	2%
general math as prerequisite for higher level courses		2	2%	+/- 2.6%	2%
Faculty development		2	2%	+/- 2.6%	2%
students has to show interest on math		2	2%	+/- 2.6%	2%
improve SIP and tutoring sessions		1	1%	+/- 1.9%	1%
<b><i>Total</i></b>		114			100%

*basic knowledge defficiency in public schools*

10

- Additional coursework to study some concepts in depth for mastery.
- Basic math skills before college.
- Many students come to UNCG w/o basic high school math skills and they are not required to learn these here. This is a serious problem.
- This needs to start before they get to us
- It should starts with K-12, however, university can increase the math requirements.
- Upper division students are still unfamiliar with basic statistical principals such as mean, median, standard deviations etc.
- Students need to have and retain a fundamental grasp of Algebra, probability theory, and statistics.
- more practice in performing basic math computations (eg %s and % change)
- some students cannot do basic multiplication, division to solve simple problems
- Support requirements of basic math in general education.

*Faculty development*

2

- Interdisciplinary activities/approaches/problems could be developed for large lecture courses in these areas. Real applications are often not recognized by new/young faculty, or even more experienced faculty who have just never thought this way.
- Each student should be held to higher standards by the educational process. We need to stop using passing grades as a method to transfer the problem to someone else. Fix the problem with poor educators who have little interest in teaching and spend way too much time "researching" irrelevant subjects just to address their job security.

*general math as prerequisite for higher level courses*

2

- I have struggled greatly in teaching general chemistry courses when students are expected to apply very general mathematics that would have been covered in secondary school. I have found that I spend a great deal of time explaining topics such as fractions and exponents when it should be assumed that students are familiar with these types of numbers. I believe that it would be reasonable for students to be required to pass a general mathematics test before being able to take general chemistry courses.
- no input except that a general math course should be required of all student's if it is not already.

*handson project*

3

- use hands-on projects that requires meaningful math knowledge and skills
- More applied math problems and opportunities to see how math is used in all jobs/careers.
- Bring together faculty from across UNCG to discuss ways in which they are incorporating fundamental principles of math and science into various content areas that intuitively we are not using math or science.

*improve math skills*

2

- Study harder. Make them read the "Outliers"
- I would take away their calculators and make them do simple calculations by hand. As long as they can rely on his crutch they will not develop the mathematical skills that they need to understand the world.

*improve SIP and tutoring sessions*

1

- Here we might need to expand the # of math courses required and made available, especially face-to-face instruction. Supporting and expanding SIP and Tutoring are important.

*integrate math at all levels*

10

- Not sure this can be incorporated into the current course given all that we are currently asking of the students.
- This is a very difficult question. One way of NOT doing it successfully is teaching them, here at UNCG, things they heard in Grade 9 or 10, and expecting them to love what they hear now.
- Real-life applications that are diverse enough for student representations (e.g. consumers, employees, citizens, etc)
- Stop teaching high school math and incorporate math into as many other courses as possible. It's probably already happening in many courses.
- Students do not get enough math or they do not seem to understand/remember what they have learned. In general many students cannot transfer what they have learned in one class to another class.
- Apply math to relevant course topics.
- hire math teachers who can relate their area of expertise to the real world and who can convey that to students
- industrial or applied math
- possibly require a higher level of math through the univ
- Mathematical thinking needs to be integrated into 100-200 level courses. Current level of mathematical content in most of these course is below high school standards because of a fear of failing students.

*Misc*

13

- no comment
- no comment
- No changes needed
- I am sorry to say that I have nothing useful to offer.
- I think the revised SLO's will take care of this issue
- no idea.
- no comment

- discontinue on-line mathematics courses where students are left to flounder. Change the GMT marker to a marker that focuses on quantitative reasoning (like UNC, for example). Instead of teaching students to add fractions and calculate volumes (MAT 112), teach problem solving and application skills.
- I don't know.
- You bunch of silly prats! This is for the students to figure out!
- Don't know.
- Not observed
- obviously, as noted above

*more emphasis on math*

26

- What can UNCG do to at least make math fun and exciting, helping students actually LEARN the material and become interested in it. Right now, the focus seems to be teaching the courses to weed students out of certain programs.
- Too few of the students in my large GEC course cannot determine what the square root of  $1/4$  or  $1/100$ . Perhaps it is the lack of rigor in too many of the public schools in NC...??
- Apply to several fields.
- basic math courses
- This will always be challenging. Though it's not observed in classes I teach, there needs to be more support for those working in the learning assistance centers and math labs so we can ensure sufficient support for students struggling in these areas.
- Greater emphasis on math that is used in real life and ability to understand consequences of financial actions such as economics
- I have not been able to observe these skills in a classroom setting.
- This area is not addressed in any of the courses that I teach.
- Students should not be passing the GEC math courses if they do not possess the algebra skills taught in high school.
- I think the problem here is how prepared they are coming in to UNCG. When someone comes in having taken calculus in high school, but can't pass pre-calculus here...that's a problem. Students seem literally afraid of math and therefore can't appreciate it.
- More students should be taking mathematics courses that work at a more conceptual level. This kind of course can be quite rigorous as long as the instructor doesn't consider it to be merely a watered down version of "real" mathematics.
- many students here avoid math at any cost - I teach a statistics course and shudder to think of some of my students going "out into the world" when they can't even do basic algebra operations! There should be a minimum competence level for undergraduates - but there also have to be resources available to help those struggling students "catch up"
- teach more math courses that are accessible to and relevant for elementary education majors
- See answer above concerning math.
- Continue to expect students to perform well in this area. I use a brief review of operations before beginning lesson
- Not recognized as a problem in my classes.

- Overhaul the math program. The \*way\* that math courses are typically taught at the postsecondary level is awful. We need a redesign based on the demonstration of \*mastery\* of core skills, with math framed as a toolkit for real-world problems. (We also need more math-using non-mathematicians teaching math. Mathematicians don't generally view math the way the rest of us do or need to.)
- APPLICATION of higher level math skills!
- More applied math problems and opportunities to see how math is used in all jobs/careers.
- Students should not pass the basic level math courses if they cannot do simple things, such as balance equations. Some of my students do not have the division skills required to compute their own grades.
- Not needed nor tested in my courses
- Overhaul STA 108 so that it has a better outcome with respect to student performance in course. Provide incentives to departments to engage students into math to their majors.
- They'd be better off with a basic statistics course than other math.
- The current GEC requirements for mathematics need to be increased for all students.
- More emphasis on teaching problem solving skills - difficult to do with web-based courses
- We need to require students to take GEC courses in which math is a fundamental part (the math marker idea that died in the last attempt to revise GEC) since it appears unlikely that we will ever get to require a second math course as a part of GEC.

*Not related*

16

- N/A
- NA
- n/a
- n/a
- see above
- None
- n/a
- NA
- na
- N/A
- I do not teach in this area.
- N/A
- n/a
- NA
- N/A
- n/a

*Promote math lab*

2

- Have you seen Math Lab? My son took the course. He entered: 3i and it was counted wrong because it was supposed to be i3. I can't believe we're using software like that.
- This will always be challenging. Though it's not observed in classes I teach, there needs to be more support for those working in the learning assistance centers and math labs so we can ensure sufficient support for students struggling in these areas.

*quantitative literacy*

3

- This is the same as quantitative literacy skills to me.
- marker for quantitative literacy
- same as answer to quantitative literacy - improve the quality of admitted freshmen by raising score minimums, etc.

*relate math to realworld*

11

- Students usually miss the connection between the mathematics and the real world. I have found that using examples of what students are familiar with and helping them figure out what the mathematics or statistics are saying opens their mind to the relevance of what they are learning in the Math class.
- relate math to reality
- Students are required to take pure math courses which focus on theory and not enough useful application. Part of the literacy is to be able to apply what they've learned quantitatively to actual everyday problems. We can't just teach math for math sake. Students no longer learn that way, and time and technology have changed. If we don't change with it, students will continue to complain about the math here and continue to look outside of UNCG to meet this requirement. UNCG should look to other mathematical science type departments to also offer GMT credit courses. Those departments can also teach mathematical topics as they apply to their particular areas which may be more interesting and useful to students.
- Greater emphasis on math that is used in real life and ability to understand consequences of financial actions such as economics
- applied to the current world dynamic versus computation
- Applying mathematics to subjects of interest to them; topics that will eventually be in their major or to topics of interest to their personal life.
- integrate math into courses outside the MAT courses
- I have a math team and they do learn the relevance of mathematics in the real world in the course I teach.
- They still separate math from what they do in the broader world. They need to learn to generalize the principles of math into their every day lives. A good course in applied mathematics would help. They also need to better understand the difference between population-level risk and personal risk, and decision-making based on both.
- I would take away their calculators and make them do simple calculations by hand. As long as they can rely on his crutch they will not develop the mathematical skills that they need to understand the world.
- hire math teachers who can relate their area of expertise to the real world and who can convey that to students

*require general statistics of all students*

2

- require general statistics of all students

- require students to take more mathematics classes; teach mathematics in a way that emphasizes concepts and principles as opposed to answers obtained from punching a bunch of numbers into a calculator.

*require students to take more mathematics classes*

3

- require students to take more mathematics classes; teach mathematics in a way that emphasizes concepts and principles as opposed to answers obtained from punching a bunch of numbers into a calculator.
- more math requirements
- I have a math team and they do learn the relevance of mathematics in the real world in the course I teach.

*research and analysis*

3

- Require another semester.
- Apply in undergraduate research participation.
- Have them do reserach and analysis

*students has to show interest on math*

2

- Again, this is a difficult area to improve, as the fundemental are lacking. Students have major difficulties adding and multiplying fractions, using scientific notation etc.
- Students need to have and retain a fundamental grasp of Algebra, probability theory, and statistics.

*teaching way should be changed*

3

- The way the mathematics is taught should be changed. It should look at the way the mathematics can be applied to the real-world probelms.
- address student complaints that mathematics teachers are not clear
- Bring together faculty from across UNCG to discuss ways in which they are incorporating fundamental principles of math and science into various content areas that intuitively we are not using math or science.

# *Content Analysis Summary*

## *Quantitative literacy skills change comments*

<i>Analyzer 1</i>	<i>N = 114</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
not related		23	20%	+/- 7.4%	19%
Misc		17	15%	+/- 6.6%	14%
more required math		16	14%	+/- 6.4%	14%
basic knowledge		12	11%	+/- 5.7%	10%
minimum qualities has to be met by a student before joining college		7	6%	+/- 4.5%	6%
various means of increase in quantitative literacy		4	4%	+/- 3.4%	3%
more problem solving		3	3%	+/- 3.0%	3%
increase admission criteria such as SAT and GPA score		3	3%	+/- 3.0%	3%
high level math is required		2	2%	+/- 2.4%	2%
data collection and analysis		2	2%	+/- 2.4%	2%
math skills get reinforced often in subsequent courses		2	2%	+/- 2.4%	2%
need more lab sessions		2	2%	+/- 2.4%	2%
create oppertunities to allow students demonstration		2	2%	+/- 2.4%	2%
basic knowledge in statistics		2	2%	+/- 2.4%	2%
relying on calculator for simple calculations should be avoided		2	2%	+/- 2.4%	2%
Research		2	2%	+/- 2.4%	2%
understanding the concept is important		1	1%	+/- 1.7%	1%
fundamental classes		1	1%	+/- 1.7%	1%
GEC disciplines		1	1%	+/- 1.7%	1%
GEC offerings		1	1%	+/- 1.7%	1%
evaluation of student courses		1	1%	+/- 1.7%	1%

### *appropriate citing*

1

- Appropriate citing of quantitative information relevant to their subject.

### *basic knowledge*

12

- When I taught ISM110, I was alarmed to find that more than half the class did not know simple formulae such as calculating interest rates on mortgages. Unfortunately, I have no advice on how to make this better but just to encourage my Mathematics colleagues to look into this.
- basic math courses
- They don't understand percentages. They don't realize that 2% off is the same as 98% of.
- I teach accounting and entrepreneurial finance - the students do not demonstrate an appreciation for the basic concepts of money and business - I work with the students to provide this information but many just don't seem (or care) to comprehend the concepts.
- They can't even calculate grades when each measurement is weighted differently
- Many students come to UNCG w/o basic high school math skills and they are not required to learn these here. This is a serious problem.
- This should also be more broadly based than an algebra class. The NSSE shows that students do better at math if it is embedded in a science course or a course in which the math actually gets used for something.
- Students need to have more foundation in using evidence to support their opinion and writing.
- Again, they need a good logic course or two to help them understand the connection between facts, logic, math, and how they feel about it all. These are very different, but related, things.
- As a teacher in the arts I would like to see students get more practice at descriptive and reflective writing.
- need more basic math refresh before they take other courses
- Help students understand relevancy and require fundamental knowledge.

### *basic knowledge in statistics*

2

- Students have difficulty in interpreting information presented in tables, charts, or graphs. They need to learn basic statistical skills so that they do not have these problems.
- Math skills are lacking in many students. Being able to understand statistics is another problem I have seen repeatedly even though stats are required prior to my classes.

### *create opportunities to allow students demonstration*

2

- Create opportunities that allow the students to demonstrate their literacy skills in speaking and written formats that are challenging and of interest to the students.
- Continue to offer courses where students have opportunity to work with original data.

### *data collection and analysis*

2

- have projects to analyze data
- Have them do reserach and analysis

*evaluation of student courses* 1

- I think we should spend the freshman year evaluating this and then recommending which students need to take a required course that will help with their reading and writing skills. Or a required set of courses. These courses need to be engaging and well taught so that they are not positioned as "punishment" but are seen as an opportunity and something that students long to do – literacy through film, literacy through popular culture, literacy through . . .

*fundamental classes* 1

- They are okay. Require all students to do the freshmen reading project, and require that it be incorporated into more fundamental classes like ENG 101 or 102.

*GEC disciplines* 1

- Not the job of Gen Ed. This is a departmental responsibility and varies with disciplines. If they didn't get in high school, they shouldn't be in college.

*GEC offerings* 1

- ensure that math courses in the GEC offerings have relevance to students in this age group– applied, rather than theoretical courses with content focused on experiences students have and will have in their fututes

*high level math is required* 2

- Higher level math should be required
- Help students understand relevancy and require fundamental knowledge.

*increase admission criteria such as SAT and GPA score* 3

- assuming I understand Quan. Lit. skills as essentially working math word problems (your midterm grade counts 30% of your final course grade) - I feel like the majority of students are illiterate in this area. How to improve? recruit better undergrads - increase/raise admission criteria such as SAT scores and GPA
- UNCG should have much more rigorous freshman admissions standards. UNCG, given that it is a second-rate state university, admits anyone with a pulse. About 75% of my students have no business being enrolled in College. I know UNCG will NEVER raise its entry standards because it must compensate for the artificially low yearly tuition by admitting many students. I have taught at UNCG for 14 1/2 years, and I am irritated with I see getting worse each year: enrollment increases while, conversely, student intelligence and preparedness decreases.
- Require a higher GPA for incoming students.

*insufficient number of tutors* 1

- many students need remedial mathematics courses, and there is an insufficient number of tutors and resources available at UNCG for students who struggle with doing, and understanding, anything to do with numbers.

*interpret empirical findings inorder to demonstrate professional standards* 1

- More exposure to research literature early on in their undergraduate careers. This is traditionally saved for graduate level coursework, but in many undergraduate programs (particularly teacher education), students are required to be able to access and interpret empirical findings in order to competently demonstrate professional standards.

*math requirement should be modified accordingly*

1

- Increase our math requirement to six hours for liberal arts majors.

*math skills get reinforced often in subsequent courses*

2

- Students who take math courses promptly forget everything they have learned. As a university we need to ensure that quant skills get reinforced often in subsequent courses.
- Mathematical thinking needs to be integrated into 100-200 level courses either by having it be a learning objective for SBS and natural science gen ed courses or through a quantitative literacy marker (minimum 3 courses). Current MAT requirement will never persuade the average student of the value of mathematical reasoning.

*minimum qualities has to be met by a student before joining college*

7

- Don't let them into college as full-time students until they can carefully approach a variety of mathematical type problems. They should take remedial courses.
- we need tougher admission standard, or if we take them, train them to have the math skills.
- remedial education or higher admissions standards
- Raise admission standards and require college level not remedial math of all freshman/transfers.
- raise admissions standards
- Probably a hopeless task for many of our students. Requiring courses doesn't seem to cut it.
- I generally have to teach that in the 300 and above courses

*Misc*

17

- no opinion
- I am not sure what is meant by this term....
- I have not been able to observe these skills in a classroom setting.
- Fairly satisfied
- I am sorry to say that I have nothing useful to offer.
- same as above
- not directly applicable
- not observed
- Ditto.
- Journal club.
- introductory geoscience courses with an emphasis on a sustainable planet
- Not clear to me what this means
- do not know

- Impossible
- I'm not sure I understand this.
- see above
- I think they do better in these areas.

*more exposure in undergraduate careers*

1

- More exposure to research literature early on in their undergraduate careers. This is traditionally saved for graduate level coursework, but in many undergraduate programs (particularly teacher education), students are required to be able to access and interpret empirical findings in order to competently demonstrate professional standards.

*more interaction in class*

1

- More in class interaction between students and with faculty

*more problem solving*

3

- More problems solving examples should be done.
- Include in assignments the objective to quantify and compare with other standards related to the content.
- assignments should be based on the content in their major

*more required math*

16

- Increased coursework may be necessary here.
- More required math
- teach more math courses that are accessible to and relevant for elementary education majors
- more math requirements
- More courses should have quantitative topics.
- Most students seem able to do simple quantitative analysis such as is required in my classes, but they seem uncomfortable with algebraic concepts and how they can be used.
- More experiential learning exercises and less lecture
- Have students tell/write stories around data/statistics.
- teach math skills that are relevant to science, e.g., the log scale, proportions;
- It would appear that non math majors study to pass exams and not to master quantitative literacy.
- Practice, again with real problems in their discipline.
- assuming I understand Quan. Lit. skills as essentially working math word problems (your midterm grade counts 30% of your final course grade) - I feel like the majority of students are illiterate in this area. How to improve? recruit better undergrads - increase/raise admission criteria such as SAT scores and GPA

- Chronic and widespread deficiencies in these two skills(quantitative and information literacy)are indicative of problems in the educational experience PRIOR to entering college. For example, in a globalizing world, the fact that I feel compelled to teach geography so that students have some idea of the regional/global geographic contexts of places we reference in class is illustrative of some serious problems in our primary and secondary school systems. The majority of students cannot identify places like Iraq and Afghanistan on an outline map!
- Help students understand relevancy and require fundamental knowledge.
- I generally have to teach that in the 300 and above courses
- Why not require every class to have a quantitative component? Counting things and identify patterns is part or should be part of every field.

*need more lab sessions*

2

- Need more lab sections, see above.
- Engage undergrads in more research.

*not related*

23

- no comment
- n/a
- N/A
- N/A
- no comment
- ??
- n/a
- n/a
- Not sure
- no comment
- ???
- na
- n/a
- NA
- n/a
- N/A
- NA
- none
- N/A
- n/a
- N/A

- NA
- n/a

<i>poor preparation in math</i>	1
<ul style="list-style-type: none"> <li>- Ten years ago the pre-calculus courses that are taken by our quantitatively illiterate undergraduates were mostly taught in sections of 20 - 30 students, with plenty of class contact with the instructor and chance to do math assignments. Today these same classes are mostly taught in large lecture sections, or, even worse, taught online. This has proven to be a catastrophe for our students who are so poorly prepared in math.</li> </ul>	
<i>prohibit the use of calculators in examinations</i>	1
<ul style="list-style-type: none"> <li>- The only way we will be able to get the students to improve their quantitative skills is to prohibit the use of calculators in examinations. As I do not think this will ever be possible, we just have to live with students who have relatively rudimentary quantitative skills.</li> </ul>	
<i>relying on calculator for simple calculations should be avoided</i>	2
<ul style="list-style-type: none"> <li>- our students rely so much on the calculator and the computer and cannot perform basic quantitative assignments without reaching for the calculator. Even more serious is the inability to understand what is behind the answers they obtain from their calculators.</li> <li>- Many cannot do simple math without a calculator.</li> </ul>	
<i>Research</i>	2
<ul style="list-style-type: none"> <li>- basic lit search data collection and analysis</li> <li>- Greater use of undergraduate research.</li> </ul>	
<i>rewrite elementary curriculum</i>	1
<ul style="list-style-type: none"> <li>- completely rewrite elementary, middle, and high school curriculum</li> </ul>	
<i>small classes</i>	1
<ul style="list-style-type: none"> <li>- smaller classes to enable more contact with students, smaller classes and lower teaching load so we can assign appropriate assignments</li> </ul>	
<i>subject relevance to the "real world"</i>	1
<ul style="list-style-type: none"> <li>- Needs to be integrated into more courses and I believe they need to see the relevance to the 'real world'.</li> </ul>	
<i>underlying structures of formal &amp; informal logic</i>	1
<ul style="list-style-type: none"> <li>- The real need here is to expose students of all disciplines more to the underlying structures of formal &amp; informal logic.</li> </ul>	
<i>understanding the concept is important</i>	1
<ul style="list-style-type: none"> <li>- I hate for students to pass a course by blindly manipulating formulae without any understanding. It would be better if these students took courses that were more conceptual, but rigorous on that level.</li> </ul>	
<i>various means of increase in quantitative literacy</i>	4

- financial literacy – is a way in which students can increase these skills – as they are well aware of money – but lack the know-how on how to save, invest, etc. this could be one of various means through which to increase quantitative literacy
- The math department on this campus may be moving ahead in research, but it is an unmitigated disaster (repeat, disaster) with respect to helping students gain quantitative skills, particularly in calculus. Physical and biological science courses at UNCG already provide students with continual quantitative problem-solving challenges at all levels. It is unfortunate that a large number of students seek to take calculus at other campuses because of the situation here. The math department needs to bring back smaller course sections and minimize the use of online courses. Calculus is so important to the physical sciences that this situation should be addressed and corrected as soon as possible. Again, because of the research emphasis and move to larger class sizes, I am not optimistic that the university administration will provide the math department with the resources it needs to provide a quality experience in math for undergraduates.
- marker for quantitative literacy skills
- Chronic and widespread deficiencies in these two skills(quantitative and information literacy)are indicative of problems in the educational experience PRIOR to entering college. For example, in a globalizing world, the fact that I feel compelled to teach geography so that students have some idea of the regional/global geographic contexts of places we reference in class is illustrative of some serious problems in our primary and secondary school systems. The majority of students cannot identify places like Iraq and Afghanistan on an outline map!

<i>Analyzer 1</i>	<i>N = 114</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
insufficient number of tutors		1	1%	+/- 1.7%	1%
more exposure in undergraduate careers		1	1%	+/- 1.7%	1%
math requirement should be modifies accordingly		1	1%	+/- 1.7%	1%
rewrite elementary curriculum		1	1%	+/- 1.7%	1%
appropriate citing		1	1%	+/- 1.7%	1%
underlying structures of formal & informal logic		1	1%	+/- 1.7%	1%
more interaction in class		1	1%	+/- 1.7%	1%
subject relevance to the "real world"		1	1%	+/- 1.7%	1%
small classes		1	1%	+/- 1.7%	1%
poor preparation in math		1	1%	+/- 1.7%	1%
prohibit the use of calculators in examinations		1	1%	+/- 1.7%	1%
interpret empirical findings inorder to demonstrate professional standards		1	1%	+/- 1.7%	1%
<b><i>Total</i></b>		118			100%

# *Content Analysis Summary*      *Science change comments*

<i>Analyzer 1</i>	<i>N = 88</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
not related		39	44%	+/- 10.5%	44%
Misc		7	8%	+/- 5.7%	8%
relate science to reality		5	6%	+/- 4.9%	6%
basic science is important in high school level		4	5%	+/- 4.4%	4%
greater variety of courses		3	3%	+/- 3.8%	3%
fundamental understanding		3	3%	+/- 3.8%	3%
keep life and natural science requirements		2	2%	+/- 3.1%	2%
more lab experience		2	2%	+/- 3.1%	2%
GE Foundational courses		1	1%	+/- 2.2%	1%
expose them to science resource		1	1%	+/- 2.2%	1%
critical thinking		1	1%	+/- 2.2%	1%
how many science and lab courses attended		1	1%	+/- 2.2%	1%
increase science requirements		1	1%	+/- 2.2%	1%
avoid multiple choice tests		1	1%	+/- 2.2%	1%
interpretative principle in science research		1	1%	+/- 2.2%	1%
introducing science to students through seminars		1	1%	+/- 2.2%	1%
history of science assignments		1	1%	+/- 2.2%	1%
academic professional and teaching tracks to diversify the faculty		1	1%	+/- 2.2%	1%
more emphasis on physics of sound and sound transmission		1	1%	+/- 2.2%	1%
understanding of value of science		1	1%	+/- 2.2%	1%
more than learning experience gives perfection		1	1%	+/- 2.2%	1%

<i>Analyzer 1</i>	<i>N = 88</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
other courses in GEC		1	1%	+/- 2.2%	1%
prerequisite courses		1	1%	+/- 2.2%	1%
relevance of material included in science courses		1	1%	+/- 2.2%	1%
require students to write authentic and discovery lessons		1	1%	+/- 2.2%	1%
science is too hard for students		1	1%	+/- 2.2%	1%
science course teacher recognition		1	1%	+/- 2.2%	1%
self motivation		1	1%	+/- 2.2%	1%
SIP sessions for maths		1	1%	+/- 2.2%	1%
students should design their studies		1	1%	+/- 2.2%	1%
support basic science in general education		1	1%	+/- 2.2%	1%
limited experience with the natural world		1	1%	+/- 2.2%	1%
<b><i>Total</i></b>		89			100%

# Analysis with Content General Education Survey 2009-2010

## Science change comments

Analyzer 1

### *academic professional and teaching tracks to diversify the faculty*

1

- Expand UR and Service Learning in these areas, develop links between basic science courses and GSB, GPR and GLT courses in "learning community" clusters are worth trying. Too often, students who are mostly "concrete learners" experience their course content as meaningless raw info that must be memorized for a test. More opportunities to learn by doing, not only in the science lab, but in the world beyond the campus via internships, service projects and research seem key. It seems that Professors are mostly ABSTRACT thinkers, whereas most students are CONCRETE learners. Again, intentionally hiring for pedagogical skill and a little more pedagogical diversity will help. We might need more "Academic Professional" and "Teaching" tracks to diversify the faculty.

### *avoid multiple choice tests*

1

- Too many large science classes that are impersonal and involve only testing by multiple choice exams. It is easy to see that this kind of class is a terrible problem, but very hard to find the resources to fix the problem.

### *basic science is important in high school level*

4

- Too many students come into the university who are clueless about science. It is as though they have forgotten most of what they learned in high school and have difficulty recovering that information when asked.
- Overall the basic science background of incoming freshmen seems to be reasonable as long as it is not a topic that involves mathematics.
- teach more science courses that are accessible to and relevant for elementary education majors
- More science instruction in public schools as a requisite to graduation. Basic knowledge of biology and chemistry is missing.

### *critical thinking*

1

- The part I try to get across is to use extreme clarity in characterizing the data collection process, the nature of the data, and the analytical procedures used. Science is a way of knowing, and fundamentally relies on being clear about what you know and how well you know it. This is similar to CRITICAL THINKING.

### *expose them to science resource*

1

- Continue to require students to write authentic and discovery lessons and expose them to the Science resource kits.

### *fundamental understanding*

3

- Students should routinely be asked to write out their understanding, rather than just check it off in "objective" tests. Fundamental understanding does not come with checking options on a list.
- Apply in undergraduate research participation.
- Bring together faculty from across UNCG to discuss ways in which they are incorporating fundamental principles of math and science into various content areas that intuitively we are not using math or science.

<i>GE Foundational courses</i>	1
<ul style="list-style-type: none"> <li>Letting students put off their gen-ed science courses until Senior year is highly counterproductive. These should be foundational courses, not bitter pills to swallow in order to graduate.</li> </ul>	
<i>greater variety of courses</i>	3
<ul style="list-style-type: none"> <li>Administrative support for smaller sections and a greater variety of courses. Hiring new faculty who want to teach science as well as do research.</li> <li>Science needs to be relevant to their career goals or future job expectations.</li> <li>The Bio 105 labs need to include labs that students can relate to. For example, there are simulated HIV test kits that can teach some biotechnology ideas as well as the epidemiology of HIV</li> </ul>	
<i>history of science assignments</i>	1
<ul style="list-style-type: none"> <li>add history of science assignments whenever possible</li> </ul>	
<i>how many science and lab courses attended</i>	1
<ul style="list-style-type: none"> <li>have students take more than two science courses, or take at least two lab courses</li> </ul>	
<i>increase science requirements</i>	1
<ul style="list-style-type: none"> <li>increase the science requirements..</li> </ul>	
<i>interpretative principle in science research</i>	1
<ul style="list-style-type: none"> <li>students already recognize the relevance of science and, in fact, perhaps overvalue its role as a criteria for judgments of all kind. they should learn the interpretative principles at play in scientific research</li> </ul>	
<i>introducing science to students through seminars</i>	1
<ul style="list-style-type: none"> <li>As stated above, we need a seminar that introduces students to science at a basic level (what it is and isn't; fundamentals; purpose).</li> </ul>	
<i>keep life and natural science requirements</i>	2
<ul style="list-style-type: none"> <li>keep life and natural science requirements</li> <li>They typically have limited understanding of science and do not know how to translate the information they had to real world situations.</li> </ul>	
<i>limited experience with the natural world</i>	1
<ul style="list-style-type: none"> <li>So many students seem to have limited experience with the natural world. Assignments and field trips to expose students to science on and around the campus might help.</li> </ul>	
<i>Misc</i>	7
<ul style="list-style-type: none"> <li>Apply to several fields. More interdisciplinary work.</li> <li>This area is not addresses in any of the courses that I teach.</li> <li>What can UNCG to at least make science fun and exciting, helping students actually LEARN the material and become interested in it. Right now, the focus seems to be teaching the courses to weed students out of certain progeams.</li> </ul>	

- I am sorry to say that I have nothing useful to offer.
- No changes needed
- See response above.
- I have not been able to observe these skills in a classroom setting.

*more emphasis on physics of sound and sound transmission*

1

- Perhaps MORE emphasis on the physics of sound and sound transmission (air waves, etc.). I am in the School of Music and sometimes have to explain a bit too many basics of how air waves "work" in sound transmission and resonance.

*more lab experience*

2

- More laboratory experience should be made available
- Have them do reserach and analysis

*more than learning experience gives perfection*

1

- There is a great confusion between belief and fact. This could be explained developmentally, but we should be helping them get better at understanding both or a college education isn't worth much. They were born scientists, but then we turn them into something else and they forget how to BE good scientists. Science to them is something to read about, not do at this point. Worse yet, they think it is something for a lab, when it is something that effective humans do every minute of every day.

*not related*

39

- no comment
- N/A
- don't know
- NA
- See above.
- no comment
- Stressing application might be helpful.
- No change is needed.
- ditto with science
- courses like "science of aging" or "science of human development" will help students understand their families and their own place in the human race
- require another semester.
- I have found review and repetition of the basic sciences are helpful in my case
- n/a
- NA
- n/a
- no comment

- Our students are fairly well prepared in the sciences.
- Opportunities for be part of ecological experiences in the community and globally.
- this is so crucial now. Maybe more interdisciplinary courses that emphasize the intersection of science and politics, science and health, science and ethics.
- n/a
- Not needed nor tested in my courses
- I don't know.
- None
- see above
- more community out reach...applied science and community work
- This is doing well as far as our students are concerned.
- Depends on their discipline.
- NA
- same as above
- N/A
- You bunch of silly prats! This is for the students to figure out!
- I do not teach science.
- Ditto.
- N/A
- NA
- n/a
- N/A
- see above
- n/a

*other courses in GEC*

1

- Not sure here because of other demands on these courses. A "capstone" gen ed course at the junior/senior level in which students look more generally at the philosophy of science and the integration of science in the modern world would be nice.

*prerequisite courses*

1

- For some people Bio 111 lecture is the first time they have had any in depth discussion of biology. These people are ostensibly going to major in it, and therefore should have a solid basis for the rest of their biology career. The lectures (as I saw it) were too oversimplified and left out so much as to leave some wondering how it all fit together.

*relate science to reality*

5

- relate science to reality
- Same.....Applying science to subjects of interest to them; topics that will eventually be in their major or to topics of interest to their personal life.

- again, applied to current world situation
- Apply science to relevant course topics
- Provide more opportunity for them to participate in original research projects

*relevance of material included in science courses* 1

- Applications should be emphasized at every opportunity. These are sometimes found in our textbooks, but most are learned through experience and by having time to research or discuss with colleagues appropriate examples to use to show relevance of material included in science courses.

*require students to write authentic and discovery lessons* 1

- Continue to require students to write authentic and discovery lessons and expose them to the Science resource kits.

*science is too hard for students* 1

- address student complaints that science is too hard

*science course teacher recognition* 1

- Our science courses for non-majors do this in an exemplary way. I do not think they need to be changed, though we do need to recognize the people who teach them. They put a tremendous amount of effort into this work, but because these courses are not part of majors they receive little credit.

*self motivation* 1

- I don't believe students can be made to recognize the relevance of anything. Like empowerment it must be a process that is self-motivated and originates from within. As long as we continue to focus more on the "hoops" they have to jump through to get a degree instead of the quality of the process it will not be possible to motivate the students to explore the relevance of their education to their personal lives. I believe most of the recent changes in the language of standards reflect more administrative and territorial re-organization than an effort to reorder the university in a way that genuinely promotes an atmosphere of engaged, critical scholarship.

*SIP sessions for maths* 1

- Same thing as mentioned above with the mathematics area. And, don't limit students in supplemental instruction sections to not being able to meet with a tutor one on one.

*students should design their studies* 1

- Students should have to design their own studies (hypothetically, if not in a lab class).

*support basic science in general education* 1

- Support requirements of basic science and scientific method in general education.

*understanding of value of science* 1

- there does not seem to be an understanding of value of science

## ***Content Analysis Summary***      *Speaking change comments*

<i>Analyzer 1</i>	<i>N = 141</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
More Practice		28	20%	+/- 6.7%	17%
not related		25	18%	+/- 6.4%	15%
Practice speaking in front of different audiences		19	13%	+/- 5.7%	12%
Speaking Required		14	10%	+/- 5.0%	8%
small class		12	9%	+/- 4.7%	7%
Visit Speaking Center		7	5%	+/- 3.6%	4%
Make connections between speaking and learning and knowledge		7	5%	+/- 3.6%	4%
More than one speech class		5	4%	+/- 3.1%	3%
express themselves in class		3	2%	+/- 2.4%	2%
speaking-intensive courses		3	2%	+/- 2.4%	2%
more presentations		3	2%	+/- 2.4%	2%
short presentations in class		3	2%	+/- 2.4%	2%
Additional courses needed		3	2%	+/- 2.4%	2%
group activities with presentations		3	2%	+/- 2.4%	2%
good communications skills with some students		2	1%	+/- 2.0%	1%
formal discussions should be graded		2	1%	+/- 2.0%	1%
encourage students to lead the discussions		2	1%	+/- 2.0%	1%
creative side of writing		2	1%	+/- 2.0%	1%
assist through communication screener		2	1%	+/- 2.0%	1%
Freshman speaking workshop		1	1%	+/- 1.4%	1%
include a speaking component in all courses		1	1%	+/- 1.4%	1%

<i>Analyzer 1</i>	<i>N = 141</i>	<i>Count</i>	<i>% Content</i>	<i>Confidence 95%</i>	<i>% Analysis</i>
careful listening to exchange ideas and opinions		1	1%	+/- 1.4%	1%
assignments by using blogs		1	1%	+/- 1.4%	1%
Aristotelian logic courses needed		1	1%	+/- 1.4%	1%
drop intensive requirement		1	1%	+/- 1.4%	1%
know the speaking need before get to UNCG		1	1%	+/- 1.4%	1%
not a university education unless communication majors		1	1%	+/- 1.4%	1%
Visual Speech Analysis		1	1%	+/- 1.4%	1%
one-credit elective course to individual students who may need it		1	1%	+/- 1.4%	1%
post presentation in youtube		1	1%	+/- 1.4%	1%
professors are qualified to assess writing		1	1%	+/- 1.4%	1%
provide oppertunitiesz for studntes to speak		1	1%	+/- 1.4%	1%
raise admission standards		1	1%	+/- 1.4%	1%
reintroduce the principles and improvisation to improve their presence		1	1%	+/- 1.4%	1%
require a higher GPA for incoming students		1	1%	+/- 1.4%	1%
Skill should have been aquired in grade school		1	1%	+/- 1.4%	1%
speaking skills should be assessed by people in communication		1	1%	+/- 1.4%	1%
student intelligent and preparedness decreases		1	1%	+/- 1.4%	1%
more time for critical thinking		1	1%	+/- 1.4%	1%
<b>Total</b>		165			100%

# Analysis with Content General Education Survey 2009-2010

## *Speaking change comments*

Analyzer 1

### *Additional courses needed*

3

- Other than opportunities for class participation (which I strongly encourage and generate), none of my current courses are speaking intensive. Aside from those students who actually participate, it's hard to see how these skills can be honed on an individual basis in a large lecture course.
- Present emphasis on level 400 students is helpful. It is concerning that all students pay for this service in their activity fee but few utilize the services as individuals.
- I should probably take a similar course that would help me with this.

### *Aristotelian logic courses needed*

1

- The need for a good course or two on Aristotelian logic is especially aparent when one listens to our students put together verbal arguments for a position. They believe that everyone should value their opinion because they have one, not because it is grounded in facts. Lots of mixing emotions with facts.

### *assignments by using blogs*

1

- Have students reflect on assignment by using blogs

### *assist through communication screener*

2

- More in class interaction between students and with faculty
- Assessing UG students through the use of a communication screener may identify students who need help and could use the services of the Speech and Hearing Center. We screen graduate students in the CSD Department.

### *careful listening to exchange ideas and opinions*

1

- Encourage careful listening as well as speaking to stress engagement and exchange of ideas and opinions.

### *creative side of writing*

2

- Other than opportunities for class participation (which I strongly encourage and generate), none of my current courses are speaking intensive. Aside from those students who actually participate, it's hard to see how these skills can be honed on an individual basis in a large lecture course.
- If they can write, they can speak. But if they can speak, they cannot necessarily write. So writing should be emphasized - and not the "creative" side of writing, the grammatical side of it.

### *drop intensive requirement*

1

- Most students speak clearly enough; we could probably drop the speaking intensive requirement.

### *encourage students to lead the discussions*

2

- Provide opportunities to speak to audiences starting in Freshman year

- Instructors should encourage them to lead the discussion..

*express themselves in class*

3

- Much more robust public speaking experiences. SI requirement as it stands seems to offer unsystematic basic skills beyond CST 105.
- Having only a couple of SI is not a guarantee that students will actually learn this skill. It would be convenient to offer opportunities for them to express themselves in class
- They must learn that informal, colloquial language and slang are inappropriate for academic speaking. They should also realize that EVERY class is an English class.

*formal discussions should be graded*

2

- encourage more discussion in courses, with evaluation and feedback for students
- Incorporate more informal discussion into class meetings so that students feel comfortable sharing their point of view. Formal discussions (i.e., debates, presentations, etc.) should be graded and evaluated so that students can improve throughout the semester.

*Freshman speaking workshop*

1

- A workshop on scholarly speaking (at the speaking center) should be mandatory for all freshmen.

*good communications skills with some students*

2

- Most of my students talk more than I want them to.
- This actually depends on individual students. Some of them do it well, but some of them are not good at speaking clearly, particularly their presentation. My suggestion is that UNCG needs to consider providing an one-credit elective speaking course to individual students who may need it.

*group activities with presentations*

3

- Group activities with presentations
- Group presentations are often a good way for students to learn this. I find that many of my students perform quite well in this area.
- Have them give presentations in front of the class and grade them not so much on content, but presentation

*include a speaking component in all courses*

1

- Include a speaking component in all courses

*know the speaking need before get to UNCG*

1

- They need to know about this need BEFORE they get to UNCG

*Make connections between speaking and learning and knowledge*

7

- Students impress me with their presentation (speaking) capabilities but the use of media is not handled well. Typos and unclear presentation points are problems. I always suggest students treat a presentation as if they are presenting to their boss but many do not understand what is required in the business world.
- Have more opportunities to make connections between speaking and learning and speaking and effective sharing of knowledge and ideas.

- continue to provide faculty and students with support as demonstrated by the Writing & Speaking centers and the workshops available to faculty
- The speaking intensive requirements are working—and need to be kept. This is often student's best area of competence.
- have them present an argument and defend the argument. Make them speak in full sentences.
- Communication across the curriculum is a good way to integrate speaking and writing skills into every classification.
- emphasize this goal in all courses taught, students seem to have the impression that language exists besides the so-called content and they do not seem to think much about the connections thereof

### *More Practice*

28

- I believe that most college freshmen would benefit greatly from a public speaking course where they are required to learn to effectively demonstrate their point of views and/or knowledge of a specific topic to a group of people.
- practice, practice, practice
- more presentations
- Both 100 and 200 level courses should incorporate a group/individual presentation each semester. The more practice the students get the better their communication skills will become. Also, require the use of the speaking center before the student's in-class presentations.
- I would definitely not discontinue the speaking across the curriculum requirement.
- I teach evening classes, so most of my students have worked a full day before attending the class - it is difficult to engage many students in meaningful dialogue in which they present ideas and information to the entire class.
- Students should have to present material to naive observers. The quality of the communication should be judged by what the LISTENER has learned.
- More practice in speaking in all courses.
- They seem to do OK here with the more practice they have.
- Same...practice and constructive feedback and support. Certainly many assignments that require such practice.
- Practice, practice, practice.
- Many students appear to have little concept of changing communication mode for different audiences. It is my impression that this topic is not discussed.
- Students need more practice. Speaking to a group is more different from conversation than most students seem to understand. They should be provided with rubrics used to evaluate oral presentations, and these rubrics should be used throughout the curriculum.
- -decrease didactic instruction and require/support students in developing their own voice in classroom and in community work excercises, connect reading/writing/speaking to student professional development
- more opportunities to speak re. their subject matter with feedback in classes. Speaking intensive classes are very helpful.
- Students need to improve their ability to make a point concisely.
- more practice

- Encourage more work with the speaking center. Often our students are very uncomfortable with public speaking and design of presentation aids.
- Again, more practice. This is easier to insert into class time.
- Practice, practice, practice.
- More speaking intensive courses should be offered.
- practice speaking.
- More speaking intensive courses
- More structured speaking instruction at every level.
- More practice.
- This would require repeated speaking throughout gen ed curriculum. Two markers (with one in the major) is not enough and is seen simply as a hurdle. But this would require many more smaller section courses.
- more speaking intensive courses
- improve speaking language skills and more effectively communicate their thoughts in a focused and concise manner

*more presentations*

3

- more presentations
- It is adequate at present
- Students should be allowed to present their work more.

*More than one speech class*

5

- Possible only if the course involves oral presentations
- Students impress me with their presentation (speaking) capabilities but the use of media is not handled well. Typos and unclear presentation points are problems. I always suggest students treat a presentation as if they are presenting to their boss but many do not understand what is required in the business world.
- speaking intensive courses earlier in their program.
- Speaking intensive courses have the same problem. Every course on campus has the ability to create an assignment in which a student must speak effectively to an audience besides their student peers. Leading a discussion is a skill that needs to be developed.
- Refer to Alverno College's process for teaching communication. Require more than one speech class.

*more time for critical thinking*

1

- More time in the classroom to discuss critical thinking steps and skills. Faculty resources to guide students in this development.

*not a university education unless communication majors*

1

- Not the job of a university education unless students are COMM majors

*not related*

25

- Independent assignments that turn toward collaborative work helps diminish anxiety while still holding students accountable.

- same as above
- n/a
- no opinion
- n/a (I teach online)
- In this area, I think our students arrive with pretty well developed skills, and the existing effort at UNCG to offer SI courses and require Speaking Center practice drills does work in my experience. Supporting the SI effort and making it possible for more students to do more presentation with clear guidelines and instructions on how to improve will keep the ball moving on this issue.
- Same.
- completely rewrite elementary, middle, and high school curriculum
- I don't see this as a a major problem.
- Ditto.
- The University Speaking Intensive courses already address this goal and, in my opinion, enough is already required of students with respect to speaking.
- They are actually surprisingly good at this.
- n/a
- not as important as the two above.
- Same as above.
- I have not a clue.
- this is generally OK
- Don't know.
- See above
- same as above
- Ditto to the above.
- NA
- See above.
- N/A
- Same as above.

*one-credit elective course to individual students who may need it*

1

- This actually depends on individual students. Some of them do it well, but some of them are not good at speaking clearly, particularly their presentation. My suggestion is that UNCG needs to consider providing an one-credit elective speaking course to individual students who may need it.

*post presentation in youtube*

1

- ask students to post and publish 3 minute presentation on YouTube or other venues (Blackboard)

- Be required to be in front of the class at least once during every course to demonstrate their oral communication skills.
- See above.....students should be required to give oral presentations.
- Their speeches are okay, but not very well developed for some. Perhaps require students to take more speaking intensive classes, or incorporate that into their capstone course.
- More in class interaction between students and with faculty
- Provide class projects that require the student to research a topic and then present their findings to the class. These presentations could be on a wide range of topics that are of a particular interest to the students. Must relate in some way to the current curriculum being taught in the class.
- Class participation and discussion of given topics may be made mandatory and a part of the class curriculum.
- encourage more discussion in courses, with evaluation and feedback for students
- I am less sanguine about the speaking across the curriculum program that about writing across the curriculum. Although it is a good idea ask the students to speak in front of audiences, they are generally much better at this than they are at writing and so benefit less from our efforts. It is much easier for a poor student to hide poor critical thinking skills behind a PowerPoint presentation than it is to hide these poor skills when they must write a paper.
- Students need more practice. Speaking to a group is more different from conversation than most students seem to understand. They should be provided with rubrics used to evaluate oral presentations, and these rubrics should be used throughout the curriculum.
- Have them give presentations in front of the class and grade them not so much on content, but presentation
- Students impress me with their presentation (speaking) capabilities but the use of media is not handled well. Typos and unclear presentation points are problems. I always suggest students treat a presentation as if they are presenting to their boss but many do not understand what is required in the business world.
- Students, again, should be asked to speak consistently across all courses and in various contexts, regardless of major.
- Much more robust public speaking experiences. SI requirement as it stands seems to offer unsystematic basic skills beyond CST 105.
- Again, practice. This is difficult to do, however, in a class of 40-50 students
- Students must speak in public more frequently and have their work critiqued
- Need opportunities to practice speaking in front of different groups and about different topics.
- The speaking intensive requirements are working--and need to be kept. This is often student's best area of competence.
- More interactive verbal engagement between faculty and students in the classroom
- improve speaking language skills and more effectively communicate their thoughts in a focused and concise manner

- If this is important, then require all students to take a basic course in Speech. Having speaking intensive courses in the major is silly. Professors are qualified to assess writing in their fields of expertise; but speaking skills should be assessed by people in Communications.

<i>provide opportunities for students to speak</i>	1
<ul style="list-style-type: none"> <li>■ Provide opportunities for students to speak about themselves - their current state and where they want to be, as well as about the things they want to pursue and achieve in life.</li> </ul>	
<i>raise admission standards</i>	1
<ul style="list-style-type: none"> <li>■ raise admissions standards</li> </ul>	
<i>reintroduce the principles and improvisation to improve their presence</i>	1
<ul style="list-style-type: none"> <li>■ Reintroduce the principles of rhetoric. Encourage students to study acting principles and improvisation to improve their stand up presence and control in front of others.</li> </ul>	
<i>require a higher GPA for incoming students</i>	1
<ul style="list-style-type: none"> <li>■ Require a higher GPA for incoming students.</li> </ul>	
<i>short presentations in class</i>	3
<ul style="list-style-type: none"> <li>■ have presentation of projects in class</li> <li>■ give student assignments that have students presenting in class. they can be short presentations (i.e., 5-8 min).</li> <li>■ In upper-level course, even in non-SI courses, students should be encouraged to offer short, formal presentations on course materials.</li> </ul>	
<i>Skill should have been acquired in grade school</i>	1
<ul style="list-style-type: none"> <li>■ These are skills that should have been improved in grade school. I don't know how we can help at this point</li> </ul>	
<i>small class</i>	12
<ul style="list-style-type: none"> <li>■ Other than opportunities for class participation (which I strongly encourage and generate), none of my current courses are speaking intensive. Aside from those students who actually participate, it's hard to see how these skills can be honed on an individual basis in a large lecture course.</li> <li>■ Very few of my students, especially in larger classes, are willing to speak even when they know the answers. Faculty need to address this in their individual classes and include speaking as a requirement for passing the courses.</li> <li>■ There is absolutely no way, in large courses, to evaluate this, much less help students to develop.</li> <li>■ smaller classes, allowing for more speaking and training in analytical skills that are foundational</li> <li>■ more smaller classes</li> <li>■ smaller class sizes</li> <li>■ smaller classes and the opportunity to practice communicating to real-world audiences</li> <li>■ Huge class sizes discourage students from speaking at all - in a 70-person class, the professor isn't able to insist on the kind of class participation that would adequately develop these communication skills.</li> <li>■ Smaller classes, though unlikely in the current budget climate, would help with this, especially at the upper levels. It is impossible to give sufficient attention to each student in a class of over 30 people.</li> </ul>	

- See above...smaller class sizes so that students have the opportunity to develop speaking skills beginning with their first year.
- smaller classes to enable more contact with students, smaller classes and lower teaching load so we can assign appropriate assignments
- smaller class size

### *Speaking Required*

14

- Many students appear to have little concept of changing communication mode for different audiences. It is my impression that this topic is not discussed.
- If this is important, then require all students to take a basic course in Speech. Having speaking intensive courses in the major is silly. Professors are qualified to assess writing in their fields of expertise; but speaking skills should be assessed by people in Communications.
- speaking-intensive courses have also proven effective
- more opportunities to speak re. their subject matter with feedback in classes. Speaking intensive classes are very helpful.
- Speaking intensive courses have the same problem. Every course on campus has the ability to create an assignment in which a student must speak effectively to an audience besides their student peers. Leading a discussion is a skill that needs to be developed.
- There is no substitute for speaking frequently throughout courses.
- Utilize video more often and the speaking center.
- A speaking intensive course should be required in the first 2 years; possibly required of all first year students.
- I am most interested in developing a student's ability to engage in developmental discussions that allow for an evolution of thought, a spontaneous dialog that requires the improvisational exploration of an idea.
- speaking intensive courses work
- Smaller classes, though unlikely in the current budget climate, would help with this, especially at the upper levels. It is impossible to give sufficient attention to each student in a class of over 30 people.
- See above...smaller class sizes so that students have the opportunity to develop speaking skills beginning with their first year.
- Continue to offer mandatory speaking intensive classes.
- Most classes I teach require a presentation. I wish I could do more, but the number of students in classes prevents it.

### *speaking skills should be assessed by people in communication*

1

- If this is important, then require all students to take a basic course in Speech. Having speaking intensive courses in the major is silly. Professors are qualified to assess writing in their fields of expertise; but speaking skills should be assessed by people in Communications.

### *speaking-intensive courses*

3

- continue with speaking intensive courses
- All students should be required to take a basic speaking intensive communications course during their first semester to improve their communication skills.
- speaking-intensive courses have also proven effective

*student intelligent and preparedness decreases*

1

- UNCG should have much more rigorous freshman admissions standards. UNCG, given that it is a second-rate state university, admits anyone with a pulse. About 75% of my students have no business being enrolled in College. I know UNCG will NEVER raise its entry standards because it must compensate for the artificially low yearly tuition by admitting many students. I have taught at UNCG for 14 1/2 years, and I am irritated with I see getting worse each year: enrollment increases while, conversely, student intelligence and preparedness decreases.

*Visit Speaking Center*

7

- The speaking center helps students with their speaking skills. However, students sometimes view it as an extra burden to go to these centers.
- More opportunities for public speaking.
- Again, having instructors require visits to the Speaking Center could help facilitate students' development of these skills.
- Utilize video more often and the speaking center.
- They must learn that informal, colloquial language and slang are inappropriate for academic speaking. They should also realize that EVERY class is an English class.
- Make sure they take public speaking courses.
- Continue to offer mandatory speaking intensive classes.

*Visual Speech Analysis*

1

- Students need to be able to hear and see themselves as they speak to various groups. The "ums" and "ands" and "so's" are very prevalent in their speech patterns.

### Common writing standards

3

- Writing is very difficult to assess and is, to some extent, discipline specific in terms of genres appropriate to the subject matter. Maybe there needs to be more consideration of what the common qualities of good writing are.
- I think it would be helpful if Schools/Colleges around the campus would develop ONE model for their students and have it reinforced in various courses they take. My observations are that students try to "get through" a course with no real understanding of how it is connected to the skills they should actually develop.
- Why not ban the use only of multiple-choice exams in classes? For certain courses, they may be one of several ways of assessing student performance, but they should not be the only or main way to help students improve their writing skills. What about generating a simple set of expectations for different types of writing (e.g., short essays, research papers, lab reports) that respect the demands made by different fields, but also reinforce common goals?

### Faculty Development

4

- I think the main problem here is that students are not taught how to write a research paper. Many students plagiarize from websites and some, I believe, do not even know they are not supposed to. For instance, they might quote something and cite the source but they do not put the words in quotations. They should be educated about plagiarism and should be punished appropriately. I have ALSO found that the process of turning a student in for violation of academic integrity is more of a punishment to the faculty than the student. We have to fill out a form and go through certain channels which might cause many faculty to be passive about plagiarism.
- To help my students with this, I took a wonderful course offered by the English Department that really helped me understand how to strengthen my students' writing skills by integrating approaches to writing in my teaching. Maybe faculty need some kind of reward or incentive program to help us want to engage in this.
- continue to provide faculty and students with support as demonstrated by the Writing & Speaking centers and the workshops available to faculty
- More faculty need to follow the principles for teaching writing intensive courses that are taught in the workshops.

### immediate feedback

15

- write more with immediate feedback—doing it over and over until correct
- Write more often with feedback on their writing. This means more work for faculty, but it is important work!
- practice and get constant feedback
- Perhaps more written assignments. Consistent feedback, i.e., evaluating on writing as well as content.
- more written work with feedback in classes; writing intensive classes are great
- Practice and application of constructive feedback. Our writing center on campus is wonderful. I refer students often.

- students need way more feedback from instructors and they need to be able to write satisfactorily in each course to pass the course
- Again students get better at writing by writing and receiving feedback about their written responses.
- This is by the far the area in which I have the most concerns. I spend an enormous amount of grading time correcting writing-related errors, even in 300 and 400 level courses. I feel as though students do not utilize the campus Writing Center as much as they should. Asking instructors to make it a point to regularly advertise the services offered by the center (and/or even require center visits for written assignments) may help with this.
- Students must write more frequently and have their work critiqued
- There needs to be more professor feedback on HOW something is written (style, tone, grammar, etc.) not just content!
- They really need more expressive writing in the courses. Mostly writing lots of smaller pieces rather than big overall papers. Smaller papers means more chances for feedback.
- Have them write more often with feedback from professors in both low and high stakes assignments
- Design and implement a course to be taken during the freshman year that teaches students how to write grammatically correct sentences and coherent paragraphs.
- students making better use of the Writing Center to get feedback

### *Improve Grammar*

26

- Writing skills (spelling as well) are in general poor. I do not teach a humanities course, but a pure science course (organic chemistry) and this is not a course that lends itself to improvement in these areas. Would suggest more intensive efforts towards this goal in the humanities courses.
- Students seem to struggle with the writing of technical materials in science classes. They seem to have more experience with creative writing than scientific writing. It would help if students were required to take more writing intensive courses in the sciences.
- Writing skills are horrible. Expand hours in the Writing Center, or invest more funds in additional counselors available for students to utilize within the center.
- I taught a 200 level accounting class where the students were required to write a one page paper concerning an accounting topic - many students were not able to prepare a cohesive well written paper that conveyed a topic that was covered during the class.
- Basic writing skills were lacking in several students.
- Student need to be able to spell better.
- improve written language skills, improve ability to clearly communicate their thoughts in a concise manner
- They need to be able to understand the fundamentals of writing an essay for *\*any\** specialty - students do not understand the basics of a thesis, incorporating evidence to support their claims, even writing a coherent sentence is beyond the skills of many students. Grammar problems, sentence fragments, etc. abound. Students are not learning these basic skills in highschool and apparently do not learn them in their basic composition classes as well. This is a snowballing problem with the student moving through a variety of academic levels without understanding the importance of these skills. Then they end up in a 300-level writing intensive English course where basic skills *\*cannot\** be properly taught in addition to teaching the literature and the students do very poorly in the class. Intervention needs to be made at the entry-college level - it's not fun to teach basic writing and grammar, but it's necessary!

- Make sure that WI and GRD courses include well-defined writing and composition goals. Ensure that basic composition is actually taught and assessed in writing courses.
- Students need to be able to write independently of the computer, i.e. without "spell check" and other automatic correction tools. It's incredible how BAD many students are at basic writing skills because of the convenience of computers/ word processors.
- Have effective 100-level writing classes including at least one focused on spelling and grammar. A lot of our students cannot write proper english.
- I find that many students need to learn to spell out words instead of using shortcuts like in emails or text messaging. Also they need to not cut and paste information they find on the Internet. Students need to use their own words when typing their assignments/papers.
- All professors need to enforce proper grammar, spelling, punctuation, and sentence structure. Unlike I was told at a WI seminar, it is not enough to have a student write "anything". Students who cannot meet this criterion should have to re-work assignments until they do, or should fail the course.
- Students in general do not know how to write effectively and clearly. Sentence construction, grammar, and punctuation are all major problems as well as being able to present thoughts in a coherent manner. I always suggest the use of the Writing Center but very few students take advantage of this school asset.
- Students need to have a basic understanding of grammar and sentence construction.
- The problem I have with writing is that they do not understand the principles of punctuation, grammar, etc. and how to apply to written communication among colleagues and peers.
- Most importantly, students must be able to write without making basic errors in grammar, punctuation, and word usage. I find far too many errors in the mechanics of writing in the papers of my students in upper-level courses.
- teach grammar, syntax, paragraph structure
- Learn correct mechanics of writing.
- Require high standards in writing both technically and rhetorically - not text messaging or poor grammar and style.
- basic principles of grammatical structure rather than rhetorical and argumentative principles
- They leave out verbs!! I do not know how they get to college with these minimal skills. Again, i believe we need to give them many more opportunities to write and then we must be willing to grade them critically.
- Seminars that emphasize the importance of proper grammar and conscientiousness in writing. We need to impose higher expectations upon our students and stop sending the message that they simply need to get something down on paper. We need to hold back students who cannot write a proper sentence (many of them, in my experience) and have them repeat their composition courses until they demonstrate proficiency.
- Require a review of grammar and composition. Teach logical organization of papers (but avoid the inane idea of a five paragraph essay).
- The fundamental problem is that students come in lacking these skills, the 100-level can only do so much, the 200-level is overburdened due to a shortage of faculty, and the 300-level is not set up to address these issues (since it is focused not only basic writing skills - what's a thesis, how to provide evidence – but on more advanced content within the discipline). Therefore, UNCG simply needs to hire a whole lot more people in order to get down the numbers at the 200-level, so that we can actually assign writing-intensive assignments that would help develop these skills, which we cannot when we have so many students in the class.

- Help with grammar and syntax!!!! I have no where to refer students who don't understand punctuation usage or sentence structure. The Writing Center does not address these needs.

### *Improve Writing across Curriculum*

1

- I'm not sure how well the writing-intensive program is working. Are students really doing what is described in the proposal when a course/instructor is approved for a WI marker? I have met students in their junior year who still don't know how to find books (let alone other peer-reviewed resources) in the Library.

### *Improve Writing Center*

2

- Writing courses and writing center need to be consistent on expectations. All students should be able to write a college paper and use APA or MLA formats.
- Help with grammar and syntax!!!! I have no where to refer students who don't understand punctuation usage or sentence structure. The Writing Center does not address these needs.

### *Increase Admissions Standards*

14

- Don't let them into college as full-time students until they can write. They should take remedial courses.
- completely rewrite elementary, middle, and high school curriculum
- Some students are not prepared to write well and should be encouraged early on to use the writing center or maybe have some sort of writing competency in order to move up in their education.
- This is almost impossible to address at the college level. Far too many students are ill-prepared and lack minimal writing skills.
- raise admissions standards
- Require a higher GPA for incoming students.
- They need to be able to understand the fundamentals of writing an essay for \*any\* specialty - students do not understand the basics of a thesis, incorporating evidence to support their claims, even writing a coherent sentence is beyond the skills of many students. Grammar problems, sentence fragments, etc. abound. Students are not learning these basic skills in highschool and apparently do not learn them in their basic composition classes as well. This is a snowballing problem with the student moving through a variety of academic levels without understanding the importance of these skills. Then they end up in a 300-level writing intensive English course where basic skills \*cannot\* be properly taught in addition to teaching the literature and the students do very poorly in the class. Intervention needs to be made at the entry-college level - it's not fun to teach basic writing and grammar, but it's necessary!
- UNCG should have much more rigorous freshman admissions standards. UNCG, given that it is a second-rate state university, admits anyone with a pulse. About 75% of my students have no business being enrolled in College. I know UNCG will NEVER raise its entry standards because it must compensate for the artificially low yearly tuition by admitting many students. I have taught at UNCG for 14 1/2 years, and I am irritated with I see getting worse each year: enrollment increases while, conversely, student intelligence and preparedness decreases.
- Too many students are borderline illiterate. There should be more experiences where they write and revise papers until they are good. They should be provided with the rubrics used to grade written work, and these rubrics should be used throughout the curriculum.
- Learn how to write before they get to college. Some are so lazy they won't even proof read their work or even hit the spell check.

- Many students are just good writers. Teaching writing does not seem to be a strong suit in the public schools of North Carolina. In service training would be a valuable addition to teacher training in NC public schools.
- Require high standards in writing both technically and rhetorically - not text messaging or poor grammar and style.
- I think this one falls to the high schools.
- Greater use of the Writing and Speaking centers - more emphasis on writing skills as a requirement for university admission.

### *Increase Originality*

3

- Do more writing that's focused on their passions and dreams, instead of JUST gathering academic knowledge. Give them a chance to write about things pertaining to themselves and their future.
- Conduct multi-media projects that allow the students to tap into their creative juices and effectively present information in a logical coherent manner.
- This has been an ongoing issue for my last three years. The writing is very straightforward with not enough original thought/insight. I don't know if there is anything that can be done in ENG 101 courses to encourage more constructive freedom in the students writing.

### *integrate writing at all levels*

18

- Integrate writing at all levels
- have all students take a fundamentals in writing course – that will help scaffold their learning and experiences throughout their college (and beyond college) experience
- Courses need to have integrated research components requiring students to write, peer-review, and revise their work accordingly. WI courses seem to perform this task, but other courses should also be able to do this, provided the class sizes are not too large.
- Communication across the curriculum is a good way to integrate speaking and writing skills into every discipline.
- Too many students are borderline illiterate. There should be more experiences where they write and revise papers until they are good. They should be provided with the rubrics used to grade written work, and these rubrics should be used throughout the curriculum.
- Writing practice, at first of generalizable skills and then of writing in professional genres, should be continued throughout the undergraduate program. CAC provides one avenue for this continued practice, but I would like to see an expansion of their programs. I've been teaching writing in first-year and advanced courses for more than 25 years now. A semester or two of composition will never achieve widespread improvements in writing, because these take time to develop. If students are required and encouraged to continue extensive writing practice every year of their program, and preferably every semester—AND if all faculty in all areas accept responsibility for writing improvement—then most students, the very large majority I believe, will improve. I must place heavy emphasis on the last word there: most students will not achieve excellent or even superior writing abilities, any more than most of them could learn to play tennis at such levels, even with the best coaching. (And yes, I'm serious about the comparison. Talking is like walking—we're all hard-wired for it—but writing is like tennis, or piano-playing, or high-level math. It is an abstract system with arcane rules in which the writer must adapt to ever-changing situations with the fruits of her experience.) But all students who take the endeavor seriously and apply themselves to an ongoing program of practice and expansion of skills will achieve some measurable improvement.
- Entry level courses should require students to visit the writing center, particularly those students with writing difficulties.

- Basic writing skills are lacking, so teaching basic sentence structure, grammar, spelling, word usage, and syntax would benefit most students. Or will they only need to communicate in 144 character messages in the future?
- There is not substitute for writing frequently throughout courses.
- I am not sure. I assigned a research paper in my 300 level course last month, and it was the first time that four of the students were required to include citations. My impression is that the students need more practice developing theses and writing argumentative papers at the lower levels. Many of them have no idea what a thesis is or are unable to formulate an interesting or nuanced thesis.
- If we could have sections of English 101 and 102 required for the first year students, and have many sections blocked for just Freshman registration. I understand in this budget climate this is a tall order, however, I believe it would help writing across the disciplines greatly.
- We should require more classes to require writing and the classes do not have to be WAC courses. Too many students believe that they should only have writing in WAC courses.
- As a teacher in the arts I would like to see students get more practice at descriptive and reflective writing.
- more instruction and practice in ENG 101 before they get to other courses
- teach analytical writing in ENG 101 instead of 'expressive' writing. Force High Schools to actually teach writing. Most college professors are not trained as instructors of writing, nor should that be their task. While it is a cop out to simply blame high schools, the reality is that a very large portion of our students are in dire need of remedial instruction in writing, spelling, and critical thinking.
- The writing problem I see more in e-mail communications than when they write essays and papers - Many students are too casual in their e-mails to professors
- Have student write for different audiences. Bring in peer review. Hev them write and revise often.
- More structured writing instruction at every level.

*limit class size*

15

- I teach large lecture courses with 80-100 students per section and four to five sections. The only way I can see to improve this is to: (1) limit the class size and make it smaller, or (2) consider adding TAs so that it's feasible to give blue book/short essay exams as opposed to scantron (multiple choice/true-false) exams.
- Most of the students I encountered in my 100 level class aren't prepared for the college classroom. They need study skills. Very small classes, rather than large lectures, would benefit them greatly, I believe, because it would give professors the chance to monitor students more directly... one-on-one, etc.
- Expand the class hours per week.
- Again, small classes or breakouts are needed to be able to work with individual students. There is simply too many students at too many different skill levels to be able to assess this, much less help students develop further, in large lecture courses.
- smaller classes, allowing for more writing and revision
- Much more writing is needed and much deeper critiquing by faculty. Given the constant pressure to expand research and to increase class size at UNCG, it is not likely that we will make much progress in this important task.

- A university-wide initiative to include more training in critical thinking and writing skills in the classroom. Smaller class sizes. Students seem to always be scrambling to find courses that fulfill the many distribution requirements at this school—perhaps a different way of organizing undergraduate education so that they are able to focus more on what skills they want to learn (as opposed to what courses fit together in a schedule).
- more smaller classes
- Lower level students need more practice writing, but that's going to be a challenge with the increased class sizes and the move many departments are having to make toward large sections.
- smaller classes with more process writing
- smaller classes to enable more contact with students, smaller classes and lower teaching load so we can assign appropriate assignments
- This would require repeated writing throughout gen ed curriculum. Two markers (with one in the major) is not enough and is seen simply as a hurdle. But this would require many more smaller section courses.
- funds to support more small sections of classes which will allow for more written assignments. Or develop innovative strategies using technology to help develop such skills.
- Many students seldom take an exam that involves writing, and rarely or never have to write a paper in a class. We should not be surprised at the low level of their writing skills. If exams and papers are to reflect the importance of writing we need to teach fewer classes with 50 - 150 students. Instead we are teaching more and more of these classes.
- smaller classes and more writing-intensive courses across the university, as well as opportunities to write for real-world audiences

#### *Misc*

6

- Students should take a writing placement immediately following the notification of the admission to the university. Students should be placed in appropriate level writing courses during the first semester to improve their writing abilities.
- Students should be give full credit for a problem only if the conclusions are written clearly and coherently.
- Why not ban the use only of multiple-choice exams in classes? For certain courses, they may be one of several ways of assessing student performance, but they should not be the only or main way to help students improve their writing skills. What about generating a simple set of expectations for different types of writing (e.g., short essays, research papers, lab reports) that respect the demands made by different fields, but also reinforce common goals?
- More time in the classroom to discuss critical thinking steps and skills. Faculty resources to guide students in this development.
- Unfortunately, e are part of the problem when we encourage use of electronic media that turn students into robots and spewers of words. Students are losing what little ability they had to focus their attention.
- Develop a more sophisticated vocabulary. Reintroduce the principles of rhetoric. Move students towards love of language as a gift to humans rather than its basest utility as a communication tool.

#### *more writing*

36

- Have them write more.
- Include a writing component in all courses with an exception to a few like mathematic, etc.

- More opportunities for writing. although this is very difficult with larger class sections. Writing offers further exploration of ideas.
- practice,practice,practice
- They need more opportunities to write...though they should have had those skills in high schools. No variation in syntax, word use, or understanding of grammar or citation.
- Require eng comp the freshman year, offer enough sections to do so, require eng comp to cover GRAMMAR and writing technically correct, as well as being able to "express" yourself.
- More writing assignments. In class quick writing exercises
- More practice in this area.
- require written projects and presentations
- Perhaps more written assignments. Consistent feedback, i.e., evaluating on writing as well as content.
- more written work with feedback in classes; writing intensive classes are great
- writing intensive courses earlier in their program.
- Well they seem to have plenty of chances to practice this, but in my 300-level class the writing is for the most part dreadful. I think less reliance on the internet and more time actually writing would help.
- More time on task. Writing needs to be a major portion of many courses, not just one or two designated "writing" courses. And it needs to be taught, not just assessed, in those courses.
- should emphasize writing in all classes
- More writing intensive courses.
- More practice.
- Again students get better at writing by writing and receiving feedback about their written responses.
- Basically, the large majority of students do a terrible job in articulating their thoughts on paper and their grammatical composition is so poor they would be at a distinct disadvantage when thrust into the business world (regardless of their occupation, everyone interacts with business).
- practice writing.
- Insure that students are required to write different kinds of papers...not just essays.
- I found that many students don't know how to write effectively. Some of them don't know even how to write a paper. My suggestion is that all freshman, including transfer students, need to take an one-credit basic writing course, which teaches how to write a paper with basic functions. They need at least the basic writing skills. My suggestion is that UNCG needs to consider providing three different levels of writing courses, such as the beginner, intermediate, and high or professional levels. The beginner writing course can be a requirement for all students, including transfer students, while the high levels of writing courses can be an elective course.
- Need more writing intensive courses.
- More background courses in English comp., etc.
- Students should be allowed to write more reports.
- Students must write more frequently and have their work critiqued

- More practice
- More developmental writing experiences, working through outlines & rough drafts, peer critiques.
- Writing practice, at first of generalizable skills and then of writing in professional genres, should be continued throughout the undergraduate program. CAC provides one avenue for this continued practice, but I would like to see an expansion of their programs. I've been teaching writing in first-year and advanced courses for more than 25 years now. A semester or two of composition will never achieve widespread improvements in writing, because these take time to develop. If students are required and encouraged to continue extensive writing practice every year of their program, and preferably every semester—AND if all faculty in all areas accept responsibility for writing improvement—then most students, the very large majority I believe, will improve. I must place heavy emphasis on the last word there: most students will not achieve excellent or even superior writing abilities, any more than most of them could learn to play tennis at such levels, even with the best coaching. (And yes, I'm serious about the comparison. Talking is like walking—we're all hard-wired for it—but writing is like tennis, or piano-playing, or high-level math. It is an abstract system with arcane rules in which the writer must adapt to ever-changing situations with the fruits of her experience.) But all students who take the endeavor seriously and apply themselves to an ongoing program of practice and expansion of skills will achieve some measurable improvement.
- Need opportunities to write and re-write papers - again this is linked to class size.
- introduce more writing to non-writing intensive courses, raise expectations and performance
- More practice, but how to do this without grading support?
- More opportunities for essay writing.
- Provide more writing opportunities, with assessment and criticism by classmates (anonymously if desired).
- The two semester course mentioned above should also explore techniques for persuasive essay writing.
- have writing be a part of more courses in the undergraduate curriculum. It seems that the serious writing classes are too few, and the burden on professor's teaching writing classes is too high. In other words, it is difficult to assume that students will leave UNCG with good writing skills, because there is not enough time and professor energy dedicated to it.

#### *more writing assignments*

9

- If this is not achieved by taking English 101 and having writing assignments in one's major and upper-level courses, then it probably cannot be achieved.
- Introduce short and in-class impromptu writing exercises.
- Increase writing assignments and grade on writing skills as well as content.
- -increase minimum levels of required reading in most courses, classroom exercises every class to practice and also to reinforce homework assignments, connect student writing to their ability learn by and with others
- writing assignments should be meaningful to their majors.
- I am not sure. I assigned a research paper in my 300 level course last month, and it was the first time that four of the students were required to include citations. My impression is that the students need more practice developing theses and writing argumentative papers at the lower levels. Many of them have no idea what a thesis is or are unable to formulate an interesting or nuanced thesis.

- add more short, critical, and ungraded writing assignments; post and publish them on Blackboard or other communal Discussion Forums
- More attention given to written assignments.
- Students should be required to submit a greater number of written assignments, for which they receive editorial comments, including opportunities for revision and resubmission.

*Not Apply*

11

- Oral presentations with training before hand in what makes for effective public speaking
- See above
- What I wrote above applies here. I teach my students how to read critically and to write clearly, coherently, and effectively. Again, it is a slow process.
- N/A
- The same as above.
- n/a
- Same as above.
- NA
- See above
- As above.
- none

*promote writing labs*

4

- promote writing labs as a support service
- Reinforce the importance of writing intensive courses with at least one mandated workshop in the freshman year.
- A workshop on scholarly writing (at the writing center) should be mandatory for all freshmen.
- Have more essays that require conceptual integration with feedback to be rewritten.

*Support Writing Across Curriculum*

15

- Require students to use the writing center for at least one assignment in each course. Students need to be shown the different types of communications and how they can choose a communication type depending on the audience.
- Small writing intensive courses, with requirements for multiple drafts of a single work and in depth conferences with and feed back from instructors is key. Practice, practice practice, combined with detailed, constructive / practical criticism seem to work well. So does developing a habit of reading! There is strong research evidence showing that if a child is an active and indepenent reader by 5th or 6 th grade, they will generally do very well in college without any special support from us. We just need to stay out of their way.
- I would definitely not discontinue the writing across the curriculum requirement.
- Sit them down and explain to them the difference between a casual e-mail and a professional one. Explain the difference between a primary reference and a secondary one. Pee-reviewed versus Wikipedia. I have all my students write a formal e-mail to me and a then write a "test/twitter" style e-mail to me. I make them appreciate the differences between the two.

- Writing across the curriculum is a good program, that has been effective in helping the students improve their writing. In my experience, most of them still need work to improve their writing, but I feel that we have taken a step in the correct direction.
- Greater emphasis on writing and particularly revision of writing in each class. Creation of discipline-specific mechanical guidelines so that students can focus more on development of argument than worrying about getting the formatting of their footnotes correct.
- Early training in writing across the disciplines.
- emphasize this goal in all courses taught, students seem to have the impression that language exists besides the so-called content and they do not seem to think much about the connections thereof
- Should take more than two writing intensive classes..
- writing-intensive course have proven effective in this regard (especially the requirement to get feedback and revise)
- Writing skills need to be developed across the curriculum, not just in Writing Intensive classes. A student who takes a writing intensive literature class is not going to be prepared to write scientific or clinical reports or business analyses.
- write with several audiences in mind including presentations
- Writing practice, at first of generalizable skills and then of writing in professional genres, should be continued throughout the undergraduate program. CAC provides one avenue for this continued practice, but I would like to see an expansion of their programs. I've been teaching writing in first-year and advanced courses for more than 25 years now. A semester or two of composition will never achieve widespread improvements in writing, because these take time to develop. If students are required and encouraged to continue extensive writing practice every year of their program, and preferably every semester—AND if all faculty in all areas accept responsibility for writing improvement—then most students, the very large majority I believe, will improve. I must place heavy emphasis on the last word there: most students will not achieve excellent or even superior writing abilities, any more than most of them could learn to play tennis at such levels, even with the best coaching. (And yes, I'm serious about the comparison. Talking is like walking—we're all hard-wired for it—but writing is like tennis, or piano-playing, or high-level math. It is an abstract system with arcane rules in which the writer must adapt to ever-changing situations with the fruits of her experience.) But all students who take the endeavor seriously and apply themselves to an ongoing program of practice and expansion of skills will achieve some measurable improvement.
- Writing intensive courses work
- The fundamental problem is that students come in lacking these skills, the 100-level can only do so much, the 200-level is overburdened due to a shortage of faculty, and the 300-level is not set up to address these issues (since it is focused not only basic writing skills - what's a thesis, how to provide evidence – but on more advanced content within the discipline). Therefore, UNCG simply needs to hire a whole lot more people in order to get down the numbers at the 200-level, so that we can actually assign writing-intensive assignments that would help develop these skills, which we cannot when we have so many students in the class.

- Writing skills are horrible. Expand hours in the Writing Center, or invest more funds in additional counselors available for students to utilize within the center.
- Require students to use the writing center for at least one assignment in each course. Students need to be shown the different types of communications and how they can choose a communication type depending on the audience.

- Writing intensive courses help, but students do not use the Writing Center as much as they should. I think there is an underlying attitude among many students that writing is not important, so more focus in the classroom relating to the importance of effective writing in specific careers that students are interested in pursuing.
- Practice and application of constructive feedback. Our writing center on campus is wonderful. I refer students often.
- Students should be assigned, not invited, to the writing center if they pretest with certain deficiencies. Instructors in content areas have little time to teach the basics to juniors and seniors that plan to teach others.
- The writing center helps students tremendously with their writing skills.
- Students in general do not know how to write effectively and clearly. Sentence construction, grammar, and punctuation are all major problems as well as being able to present thoughts in a coherent manner. I always suggest the use of the Writing Center but very few students take advantage of this school asset.
- Encourage more attendance at the writing center. Often students have difficulty condensing their writing into cohesive thoughts.
- Continue to promote the writing center's function.
- continue to provide faculty and students with support as demonstrated by the Writing & Speaking centers and the workshops available to faculty
- Students should consult with writing center. They must learn that informal, colloquial, slang or 'texting' abbreviations are inappropriate for academic writing. They should also realize that EVERY class is an English class.
- Greater use of the Writing and Speaking centers - more emphasis on writing skills as a requirement for university admission.

*writing course is required*

6

- Perhaps require a course in writing or administer a proficiency test. For those who don't pass the proficiency test, a writing course is required.
- Make sure they take writing courses, taught by talented English professors.
- more writing intensive courses
- Require students to take writing/composition classes that teaches students "how" to write.
- More smaller writing intensive classes in the first four semesters at UNCG. Perhaps three of the WI courses should be GEC courses in the first two years.
- Ask them to write more in all courses