

# Principles of General Education

## Comments received through February 2, 2008

### **1. The foundational essence of general education will shift more toward learning experiences that produce understanding of the process of inquiry and help students develop critical thinking skills than acquiring specific knowledge content.**

- ⇒ The focus of USP “will shift more toward learning experiences . . . than acquiring specific knowledge content.” I’d be more inclined to agree with a statement that uses a word like “balance,” i.e., the new USP will balance learning experiences with the acquisition of specific knowledge. Of course, we’d need to agree what specific knowledge every student needs to know, or we’d have to agree that the major requirements (or college requirements) address specific content knowledge and that USP will be a counterweight. Right now, the wording seems to suggest that experience is more valuable than specific knowledge. I think specific knowledge has a place in a university.
- ⇒ Many of the principles sound good in theory. However, I would like to focus on two major hurdles. The first has to do with the principle 1 which wants to emphasize critical thinking over content knowledge. On the most basic level, how can one think critically without content? That is absurd. Critical thinking can’t happen in a vacuum. By emphasizing process over substance, one could create a student that picks and chooses facts or data points to fit a theory. Very dangerous.
- ⇒ I strongly disagree with the shift in emphasis proposed in #1 to 'understanding the process of inquiry' rather than acquiring specific knowledge content in the general education portion of the curriculum. While I believe this is a critical component of the educational experience, I feel that this would be best be taught in the context of the major, where the students have already acquired basic knowledge of the discipline and, therefore, have a context in which to develop critical thinking skills. To expect first-year students to develop critical thinking skills without basic quantitative, analytical, and communicative skills or substantive knowledge of the subject being addressed is an exercise in futility. Many of our incoming students have low mathematical skills and almost all incoming students have no statistical reasoning skills.
- ⇒ In my opinion, the encouragement of evidence-based thinking is one of the more promising aspects of the General Studies revision. I think this should be high-lighted in the text of the principle rather than hidden in the verbiage below. I would recommend a rewrite of the principle such as the following: "The foundational essence of general education will shift more toward learning experiences that produce understanding of the process of inquiry and help students become evidence-based thinkers by developing critical thinking skills. The acquisition of specific knowledge content will be left primarily to courses outside the general education curriculum."
- ⇒ Point 1 (critical reasoning is more important than knowledge) It strikes me as implausible that one can teach critical reasoning devoid of knowledge. It strikes me as anti-intellectual to claim that knowledge is unimportant. How can we create "evidence-based thinkers" without any evidence upon which to base the thinking? I fear this principle will lead to a proliferation of courses that are so divorced from any subject matter that reasonable students will consider them irrelevant to any interest the student might have or might develop.
- ⇒ With the utmost respect I ask has anyone who has prepared these Gen Ed. principles ever taken a Humanities Course? Or a Science Course? Or even a Social Sciences Course? I ask because if one takes, for example, a well-taught, well-structured Humanities course, then students--IN EVERY CLASS--see how modes of thinking and critical approaches to various topics are applied. Indeed the humanities by their very nature demonstrate modes of discourse and critical thinking precisely through

1 their CONTENT. Read any philosophy or literature lately? One cannot read either without casting a  
2 critical, questioning, thoughtful eye to the text at hand. Looked at a painting recently? It is impossible  
3 not to engage in critical thinking. Perhaps what is needed is not so much a divorce of content and  
4 method, but rather an amicable division of labor. Content courses, arguably, could do more to "lay  
5 bare" the devices of how one manages content. To divorce method and content is to propose to  
6 students that methods of inquiry, while applicable to a variety of disciplines, need to be anchored in  
7 some sort of content in order to be implemented successfully. You cannot mean to tell me that a  
8 physics professor, for example, does not model scientific inquiry and healthy skepticism every time  
9 he/she does an experiment with students, works through a problem set, or discusses a host of  
10 theoretical issues. I'll bet this is the same for every discipline. The issue, rather, is that we need to  
11 POINT OUT more to our students HOW to engage in productive intellectual inquiry and HOW to think  
12 critically. How can you do that without modeling applications such methodology within a discipline?  
13

14 ⇒ "Critical thinking" has been the goal of education for a very long time. But a student's mind, like a flour  
15 mill, has to have something to process. I find that too many of my students have a pitifully weak fund of  
16 general knowledge and that most lack the skills to construct proper English sentences & paragraphs.  
17 They cannot spell nor can they use prepositions correctly. This is the more remarkable since their  
18 computers alert them to errors in spelling and grammar. In any discipline the "facts" change, and should  
19 change, in every generation. But there is no substitute for KNOWING what it is a discipline thinks is the  
20 case at the time one is studying it. Sorry to be so general, but hey, I'm a generalist. I had a liberal arts  
21 education....  
22

23 ⇒ I am concerned about the very nebulous character of this principle, especially in light of the effects it  
24 can have. It reads to my eye simply as "We can teach you how to think without having you think about  
25 anything in particular." I am disturbed that I cannot think of, not does the principle give an example of,  
26 what this means or how it can be done. Teaching thinking and principles of criticism THROUGH select  
27 subject matter is a sounder way to go. I urge rejection of this very vague and potentially pernicious  
28 principle.  
29

30 ⇒ I take exception to the very first principle -- essentially that general and first-year education courses be  
31 shifted more to "how" than to content. You know, it used to be assumed that if you gave a starving man  
32 ExLax, all you were likely to get back was the laxative. This is a fundamental flaw in what I understand  
33 the overall design to be. What I am observing now is that the great majority of entering students  
34 actually "know" next to nothing, and what's more, they really don't care. There is little learning for  
35 learning's sake, there is little intellectual curiosity. "Learning how to learn" courses will only exacerbate  
36 the situation. "Learning how to learn" used to be the responsibility of the \*student\*. And it worked very  
37 well, thank you very much. Now it is formally postulated to be the faculty's responsibility, and have  
38 stated goals and outcomes that will be carefully and continually assessed. "Has the University entered  
39 backwards-world? Every person learns, works, and functions in his or her unique manner. We're  
40 supposed to teach general principles, and while were at it, also "teach" morals, ethics, and personal  
41 responsibility? If this has not been done by the usual age of entering freshmen of 17-18, it's too late.  
42 Doesn't every single lawyer and MBA take required professional ethics classes as part of the degree  
43 program? If so, just from reading the newspapers, why are there so many reports of immoral and  
44 unethical behavior. Would it, I ask you, be much better if they all had to take more "learning how to  
45 learn" classes and they would have better learned ethics? All these general principles cannot be  
46 pondered and discuss absent a much more detailed plan on how the plan will be implemented. The  
47 information I have gotten indicates that 1) all sorts of new (1 credit ?) courses in learning how to learn in  
48 the various major disciplinary are going to be proposed, probably not reviewed properly because high-  
49 level administrators want to implement this proposal yesterday, and then inflicted upon the students.  
50 Normal university academic process would be short-circuited. This is bad. In addition, I understand that  
51 most, if not all the 30 or so credits of this new general studies curriculum shall (or should) be completed  
52 in the first year of residence. For the majors in the more "linear" disciplines -- the biological,  
53 engineering, mathematical, and physical sciences -- this will artificially add a minimum of one semester,  
54 more likely two semesters, to the time-to-degree because they will not be able to take anything near the  
55 minimum number of fundamental disciplinary and pre-major courses in the first year. Well, there goes

1 out time-to-degree goals. Given the fatal flaws inherent just in Principle #1, I believe there is no point in  
2 discussing the others. This whole plan is bad, egregiously bad, so bad that it is one of those ideas for  
3 which one should have an emergency air bag installed on one's desk to save oneself from really bad  
4 ideas. "Lasiate ogni speranza voi ch'entrate." -Dante Allighieri, *Il Inferno*  
5

6 ⇒ In theory, I like the notion of a "process of learning," but I am very concerned about how the current  
7 wording marginalizes what is referred to here as "content knowledge." In many disciplines, it is  
8 impossible to divorce content from inquiry. In the sciences, for example, the whole point of research is  
9 to arrive at "content" -- building upon the work of others who have come before and providing a  
10 groundwork for those who will come after. Are we teaching students that "facts" don't matter anymore?  
11 The wording seems to imply that the so-called "information age" has made content irrelevant. I could  
12 not disagree more. The fact that students have access to the internet -- a wonderful tool, but one that is  
13 not authoritative or comprehensive -- does little to assuage my concerns. Wikipedia hardly seems a  
14 substitute for a good general education requirement. I have heard some say that a content-based  
15 curriculum is no longer practical. In a post-modern world, they argue, academic committees cannot  
16 reach consensus about what is important, so it is simpler to "just drop the façade" and leave content out  
17 altogether. In truth, this sort of reasoning sounds more like a medieval debate on the trinity than any  
18 kind of academically rigorous attempt to revise general education. In this regard, I am concerned that in  
19 practice the emphasis on inquiry-based learning reflects an implicit "dumbing down" of graduation  
20 requirements. Although this kind of revised curriculum may result in statistics that cast UK in a better  
21 light in the U.S. News and World Report, I do not believe that we are doing a favor to our students or to  
22 higher education in general. The idea that students will be able to graduate without a basic content-  
23 based understanding of mathematics, natural sciences, etc., seems as ludicrous to me as having them  
24 graduate without a basic understanding of both American and world history and a working knowledge of  
25 at least TWO foreign languages. (How does one take content out of language study? Our answer  
26 seems to be to get rid of language study altogether.) In a global world, content still matters!  
27

28 ⇒ The first principle valuing understanding the process of inquiry over specific knowledge content is  
29 absolutely essential. We are overwhelmed with information with a ridiculously short half-life. This should  
30 be the primary guiding principle.  
31

32 ⇒ I agree about moving away from content-oriented survey courses and I accept the value of some  
33 emphasis on problem-solving. Still, it seems to me that this emphasis runs the risk of simplifying and  
34 distorting. Gen Ed courses, it seems to me, ought to make clear to students that there are problems  
35 that societies have confronted for a long time (as in centuries or more) that haven't been solved. Not all  
36 problems can be solved in a neat, tidy way. Why this is the case is important to think about. Some  
37 cultures and some eras have wrestled with them in different ways. This is important to understand and  
38 to think about. Focusing on what can be solved or what has been solved ignores much that students  
39 should learn about.  
40

41 ⇒ I agree that UK students need better critical thinking skills, but I also know that they desperately need  
42 more content-based knowledge as well. For example, having taught ANT 160 to non-majors as part of  
43 the cross-cultural requirement of the USP for more than 10 years, I know how poorly incoming  
44 freshmen are prepared with knowledge of such simple content as the geography of the world, names  
45 and locations of nation-states, etc. This is an example from my own field, but all educators today are  
46 aware of how US students fail in content based knowledge compared to students in other industrialized  
47 nations. Hence, incoming UK students are too poorly prepared with BOTH critical thinking skills AND  
48 content. Based on this knowledge, I find Principle 1 set up as an either/or choice which I do not think  
49 adequately addresses our needs. Our students need to learn BOTH critical thinking AND content. I  
50 advocate for revising Principle 1 to create a general ed curriculum that addresses BOTH these needs.  
51 Ultimately, one cannot have good critical thinking skills without having some basic content. In other  
52 words, you have to have some content, facts and knowledge about the world in order to think critically  
53 about it.  
54

- 1 ⇒ Principle 1 should be applied to the sciences and mathematics with extreme caution if at all. It is very  
2 difficult to understand the processes of inquiry, particularly in mathematics, without some basic content  
3 knowledge. Example: you can't understand statistical reasoning if you can't divide fractions. This has  
4 been a problem in introductory courses in this area! I am very skeptical on more general grounds that  
5 method can be divorced from content in the way that is proposed. This could very easily become a  
6 means of watering down standards, diluting content, and devaluing the University of Kentucky's  
7 undergraduate degrees. We should not succumb to the temptation to do this in order to produce short-  
8 term (and short-sighted) increases in throughput.  
9
- 10 ⇒ We must remember that inquiry depends on content knowledge. While I agree that developing content  
11 knowledge that is both broad and deep is not possible given the scope of a single general education  
12 class, a meaningful experience with inquiry needs some depth of content knowledge. I would like to see  
13 point #1 call for a balance between developing content knowledge and developing habits of and  
14 approaches to critical inquiry, rather than focusing on only one.  
15
- 16 ⇒ This principle seems to suggest that inquiry and content are contradicting each other, which I find  
17 puzzling and disturbing. I prefer to teach students thinking and learning skills as well as to arouse their  
18 curiosity through discussing interesting material. Besides, the more knowledge about the facts, the  
19 more critical and informed will the inquiry be.  
20
- 21 ⇒ I believe that most of the faculty strive to help students develop critical thinking skills in our courses.  
22 However, it is important to have something to think about. I am concerned that the proposal circulated  
23 in September paid lip service to this principle, but had not thought seriously how to implement such a  
24 goal. I do not feel the five week modules are a format that is conducive to critical thinking. I am  
25 concerned that the September proposal reduced the role of mathematics in our curriculum. I believe  
26 that mathematical reasoning and the ability to think abstractly as developed in the study of mathematics  
27 are an important part of general education.  
28
- 29 ⇒ I fully agree with the idea of inquiry based education, however, I believe that your plan sets up a  
30 false dichotomy between content and skills. A course must have sufficient content upon which  
31 to teach the essential skills. There is no reason why a well-designed course cannot both be  
32 inquiry based and simultaneously offer the gateway into a particular discipline or methodology.  
33
- 34 ⇒ I have great reservations about simply replacing "content" with knowledge about how specific  
35 disciplines "think." This falls under the rubric of sounding fine in a theoretical sense, but being a  
36 complete failure in practice. When I teach capstone courses for majors, I am still shocked by the  
37 lack of context they bring to their final year. I think "revolutions" are fine, but one that casually  
38 tosses away content is one doomed to failure.  
39  
40

41 **2. The general education curriculum will consist of no more than the equivalent of thirty credit**  
42 **hours of course work.**  
43

- 44 ⇒ I think that specifying a specific number of credit hours goes far beyond the statement of a  
45 principle. It seems premature to settle on 30 credit hours when so much is unknown. Perhaps  
46 this principle could be stated in more general terms and moved toward the bottom of the list  
47 (since it seems to reflect a logistical concern rather than a statement of philosophy).  
48
- 49 ⇒ Introducing 30 hours of coursework that cannot be applied to any major (because it is divorced  
50 from the content of any major) is more of a burden on students than the current USP.  
51
- 52 ⇒ With an explicit recognition of 'double dipping' (a phrase that sounds somehow shady and illegal  
53 and which should be discontinued-- use instead "double counting") this principle still doesn't  
54 address the "how to" of the process. In fact, this is not a principle as stated. This simply is a

1 promise that our current 132 credit-hour curriculum will not grow by more than 30 more credit  
2 hours. Very hollow promise! What is the authors' intent?  
3

4 ⇒ Not all pre-major and major courses are ill suited to the purposes of general education. A  
5 number of fields in the Humanities and Social Sciences in particular, if taught with the correct  
6 focus, can serve excellently well. It depends on the discipline, the course, even the individual  
7 instructor. The tendency to treat all major courses the same in this regard is typical of the "broad  
8 brush" approach which was so troubling in the original Gen Ed proposal. I urge that a system be  
9 established whereby individual instructors or departments may submit appropriate pre-major or  
10 major courses for approval to satisfy Gen Ed requirements - if they meet the stated outcomes  
11 and objectives. Indeed, the rationale in principle #3, which seeks a closer link between Gen Ed  
12 and major courses, seems to contradict the assumptions of principle #2, where these are  
13 presented as antithetical. Bottom line, let's judge disciplines and courses individually on their  
14 merits in this regard, and not lump them all together or insist on an entire set of "non-  
15 disciplinary" Gen Ed courses, as in the original Gen Ed proposal.  
16

17 ⇒ If double dipping is not allowed, it is not clear to me that a 30 credit hour limit is strong enough. I  
18 would like to see how that impacts specific programs.  
19

20 ⇒ 30 hours v. 40hours: yes, yes, yes, yes. Twenty hours would be better still (but not possible, I  
21 gather). The 40 hour program is absurd even with double-dipping. Cutting down the USP  
22 requirements and the number of hours is the single best idea to come forth about Gen  
23 Ed!!!!!!!!!!!!!!  
24

25 ⇒ I find Principles 2 & 3 to be somewhat at cross-purposes. Principle 2 seems to me to say that  
26 Gen Ed requirements should be separated from disciplinary major requirements, while Principle  
27 3 seems to want to integrate them. Hence, I am a bit unclear about how both principles will be  
28 achieved through the same curriculum?  
29

30 ⇒ I agree that the general education curriculum should consist of no more than 30 hours. The  
31 current USP+College+Major requirements give our students very little flexibility. Integrating core  
32 major requirements into USP and decreasing the hours devoted to general education  
33 requirements increase our students ability to design programs that meet their interests.  
34  
35

36 ***3. A revised curriculum will intentionally identify and strengthen the connections between***  
37 ***coursework in general education and the student's major field of study.***  
38

39 ⇒ This worthy point is in direct opposition to point 1. You can't make a subject-matter-free course  
40 (as promoted in point 1) connect to a major.  
41

42 ⇒ I agree that this is an excellent idea. We are never going to be a small liberal arts college. What  
43 we do best is teach students who have decided on a major. We should try to build on our  
44 strengths.  
45

46 ⇒ Given this principle, I am puzzled by the September proposal that removed mathematics from  
47 the general education program. Mathematics is a fundamental component of many programs  
48 across campus.  
49  
50

51 ***4. A revised general education curriculum will be designed to smooth the transition from high***  
52 ***school to a research university, and include a first-year curriculum with significant involvement of***  
53 ***full-time faculty.***  
54

- 1 ⇒ There is a logistical problem with involving full-time faculty in USP: They become less available  
2 to teach courses in the major. Given limited resources, one must choose. Most departments  
3 would choose to serve their majors at the expense of the general population. I am uneasy with  
4 the limited choice of arts/humanities, social/behavioral, natural/physical. It leaves out the  
5 mathematical, the philosophical, the educational, to name a few.  
6
- 7 ⇒ In theory this sounds like a noble aim, but I do not think it will be achieved in a huge class  
8 stuffed full of undergraduates with little or no true contact with the teacher or each other. Unless,  
9 of course, we are referring to a Discovery Program model, which I doubt, as the costs would be  
10 prohibitive. Thus, I do not see that this aim would be any better met than with the current  
11 system.  
12
- 13 ⇒ Full-time faculty involved in the Gen Ed curriculum. This is largely the case with my department  
14 (History). There are far too many departments here that have fobbed off 100- and 200- and  
15 even 300-level teaching on TAs and graduate student instructors.  
16
- 17 ⇒ A noble goal. Recent experience indicates that there is no commitment by our administration in  
18 implementing this principle. The September proposal suggested that UK 101 be increased to  
19 two credit hours. As this course has almost no faculty involvement, the previous proposal and  
20 the principle seem to be in opposition. To ease the transition to University life, we should look to  
21 successful programs such as {Math,Chem,Bio}Excel which help ease the transition to University  
22 life in a program with a strong academic component.  
23  
24

25 ***5. A revised general education curriculum will have an explicit focus on written communication and***  
26 ***quantitative reasoning skills.***  
27

- 28 ⇒ The first sentence is not clear and needs to be rewritten.  
29
- 30 ⇒ I strongly believe that tools for understanding visual culture that we are living in are absolutely  
31 essential for the General Education Curriculum. Both production and conceptual tools fit in this  
32 category. A student should be able to deal with basic video/audio/digital photo manipulation  
33 software regardless of her/his major. One's whole existence in our digital age calls for a certain  
34 amount of proficiency and savvy with the tools that shape their everyday environment. In my  
35 opinion point 5 of the proposal should also include visual communication skills.  
36
- 37 ⇒ I fully support #5 and would recommend that this portion be expanded to include both  
38 mathematical and statistical reasoning.  
39
- 40 ⇒ (emphasis on communication and quantitative reasoning) I would agree with the short form of  
41 this point, but the expanded discussion singles out statistics and probability as more important  
42 than the computational. It seems to me that computational understanding is a prerequisite for  
43 statistical understanding.  
44
- 45 ⇒ I suggest a broader view on quantitative reasoning skills along the lines of MA 111 that currently  
46 covers rudiments of logic, set theory (needed for counting), probability theory, financial  
47 mathematics, and geometric patterns (such as the golden ratio). This course may be improved  
48 in the view of principle 1 by putting emphasis on mathematical thinking such as deductive,  
49 combinatorial, probabilistic, and recursive. The choice of examples may better connect this  
50 course with other disciplines (logic in philosophy, odds in biology and medicine, model formulas  
51 in economics and business, golden ratio in arts). Also more emphasis can be put on ideas  
52 rather than procedures, meaning rather than formal correctness and so on. Regarding  
53 algorithmic thinking in college algebra or statistical patterns in applied mathematics I express  
54 the view that a two semester course is needed in order to reach these more "advanced"  
55 components of "quantitative literacy." The expression "over mathematical computation and

- 1 algorithms" should be dropped since it sounds silly. As Plato said, mathematicians seem to talk  
2 about "quantities" as if such things exist and can be manipulated, but in fact they operate with  
3 ideas and intellectual inquiry.  
4
- 5 ⇒ While I agree with the spirit of the stated principle, does this suggest that all freshmen will have  
6 a course in probability and statistics? The drive to incorporate writing-intensive experiences  
7 across the curriculum is important. This is not, however, a matter for the general education  
8 requirements alone.  
9
- 10 ⇒ While I find nothing objectionable in this principle per se, I do find it very limited. What students  
11 need to know is not limited to writing or quantitative ability. There are many other forms of  
12 "literacy," cultural, visual, political, etc. they are, in my view, just as fundamental. The repeated  
13 focus on statistical reasoning strikes me as odd.  
14
- 15 ⇒ I'm curious how numbers 1 and 5 will mesh. It seems that there is a fundamental core of specific  
16 knowledge that is a pre-requisite for an "explicit focus on written communication and quantitative  
17 reasoning skills." If students are not able to do relatively simple mathematical computations they  
18 will not be able to manage their personal finances, nor will they be able to comprehend basic  
19 quantitative data. Similarly, if they are not able to compose a paragraph, how will they be able to  
20 communicate in writing? Ideally this core knowledge would be obtained in high school (or  
21 perhaps in grammar school?); however, students who are deficient in these fundamental skills  
22 will need a clear mechanism for 'getting up to speed'.  
23
- 24 ⇒ The sentence "Our students need a grounding in logic, understand the rudiments of probability,  
25 be able to recognize statistical patterns, model formulas, and deal with statistically-based  
26 hypotheses throughout their lives." is ungrammatical. The distinction between "quantitative  
27 reasoning" and "mathematical computation and algorithms" is unclear to me. There is certainly a  
28 difference between rote learning of algorithms and learning to design and analyze algorithms,  
29 but both are concerned with algorithms (see my course on design and analysis of algorithms to  
30 understand how deep a subject this is). I would like to see it made more explicit which aspects  
31 of mathematical computation and algorithms are to be de-emphasized.  
32
- 33 ⇒ Emphasis on writing and quantitative reasoning skills. We've been talking about this for 20 or  
34 more years. Do it. Also, it makes sense to keep the focus relatively simple and clear. The  
35 current mess of USP goals is absurd. it tries to do too much and ends up doing nothing well.  
36
- 37 ⇒ I have very strong reservations regarding the sentence in principal 5 that "the revised curriculum  
38 should emphasize the components of quantitative literacy over mathematical computation and  
39 algorithms." I refer to the point about probability. The students need to have some  
40 computational facility in order to understand any sort of quantitative reasoning. Students going  
41 into any medical or scientific field need a great deal more. A nurse may not need to know the  
42 fundamental theorem of algebra but a nurse who can't do ratios or divide fractions could kill a  
43 patient. A student who can't multiply or doesn't understand compound interest can fall prey to  
44 predatory lending, "rent to own" rip-offs, and other financial scams. I also insist on a very careful  
45 identification of what "quantitative literacy" is understood to mean, and insist on the key role of  
46 the faculties of mathematics and statistics, as well as the documents prepared by appropriate  
47 professional societies, in any discussion of quantitative literacy is to mean. In particular, it  
48 should NOT consist solely of something referred to in previous documents as "statistical  
49 reasoning." I find statements by Associate Provost Kramer and others that "anyone can teach  
50 statistics" transparently dubious and particularly unhelpful in this context. I hope that the  
51 discussion to come will show more appropriate respect for the complexity of this issue and the  
52 disciplinary expertise of the faculties of mathematics and statistics.  
53
- 54 ⇒ I agree with the statement of principle #5 on written communication and quantitative reasoning  
55 skills, but concerning the justification wish strongly to emphasize that quantitative reasoning

1 certainly includes, but encompasses much more than, statistical methods alone. The previous  
2 USP document suggested that this requirement would be met by a statistics course, but I  
3 believe that would be too narrow an interpretation. There have been numerous studies and  
4 recommendations made on the need and nature of quantitative literacy/reasoning that we must  
5 carefully consider as we try to act on this principle. For example, the Mathematical Association  
6 of America prepared a report on "Quantitative Reasoning for College Graduates: A Complement  
7 to the Standards," [http://www.maa.org/past/ql/ql\\_toc.html](http://www.maa.org/past/ql/ql_toc.html). I will include some excerpts below. In  
8 particular, I feel that there is a good opportunity here for collaboration between a number of  
9 departments and colleges, as occurred several years ago within the UK USP Inference  
10 Requirement Subcommittee, to respond to the challenge of improving quantitative literacy. It  
11 would be helpful to review the recommendations of the report issued by this committee.  
12 (Members of the committee came from Agricultural Economics, Computer Science, Curriculum  
13 and Instruction, English, Finance, Lexington Community College, Mathematics, and  
14 Philosophy.) I am also concerned that the recent USP proposal and, to some extent, the current  
15 principles, leave little room for the use of MA 111, "Introduction to Contemporary Mathematics,"  
16 which was designed precisely with due attention to the recommendations on quantitative  
17 literacy, and to the recommendations of the above-mentioned committee. Finally I suggest  
18 dropping the phrase that we "should emphasize the components of quantitative literacy over  
19 mathematical computation and algorithms", and use instead the phrase from the MAA report,  
20 "Rote and passive learning of mathematical facts and procedures is not enough. Educated  
21 adults should be able to interpret mathematical models, represent mathematical information in  
22 several ways, and use different mathematical and statistical methods to solve problems, while  
23 recognizing that these methods have limits." -----

24 -- Here are the promised excerpts from the MAA report. It provides five guiding principles for  
25 what quantitative literacy includes, and offers four primary recommendations when considering  
26 implications for implementation: A quantitatively literate college graduate should be able to: 1.  
27 Interpret mathematical models such as formulas, graphs, tables, and schematics, and draw  
28 inferences from them. 2. Represent mathematical information symbolically, visually, numerically,  
29 and verbally. 3. Use arithmetical, algebraic, geometric and statistical methods to solve  
30 problems. 4. Estimate and check answers to mathematical problems in order to determine  
31 reasonableness, identify alternatives, and select optimal results. 5. Recognize that  
32 mathematical and statistical methods have limits. Conclusion 1. Colleges and universities  
33 should treat quantitative literacy as a thoroughly legitimate and even necessary goal for  
34 baccalaureate graduates. Many authoritative mathematical and other groups have affirmed the  
35 importance of quantitative, or mathematical, skills in the population at large. These skills are  
36 valuable in various ways (this report lists nine), e.g. in daily life, further education, careers, and  
37 overall citizenship. To some degree these skills are acquired by the end of secondary  
38 education, but the post-secondary experience should reinforce what has been learned in school  
39 and go beyond. Thus the Subcommittee's concern has been not with quantitative literacy in  
40 general, but with quantitative literacy for college graduates, which naturally should differ in both  
41 depth and quality from that expected of high school graduates. Conclusion 2. Colleges and  
42 universities should expect every college graduate to be able to apply simple mathematical  
43 methods to the solution of real-world problems. Rote and passive learning of mathematical facts  
44 and procedures is not enough. Educated adults should be able to interpret mathematical  
45 models, represent mathematical information in several ways, and use different mathematical  
46 and statistical methods to solve problems, while recognizing that these methods have limits.  
47 These elements extend those in the ideal of "mathematical power" presented in the NCTM  
48 Standards, which include "methods of investigating and reasoning, means of communication,  
49 and notions of context." At the same time, these goals seem attainable. Conclusion 3. Colleges  
50 and universities should devise and establish quantitative literacy programs each consisting of  
51 foundation experience and a continuation experience, and mathematics departments should  
52 provide leadership in the development of such programs. A required course or two is not  
53 sufficient. A student becomes quantitatively literate through a broad program that instills certain  
54 "long-term patterns of interaction and engagement." The program, the central idea of these  
55 recommendations, starts with a "foundation experience" into which students are appropriately  
56 placed and in which a carefully chosen course or two can raise entering students to a level of



1 proficiency where they can benefit from the next phase, which is the "continuation experience."  
2 In the continuation phase, later in their undergraduate programs students exercise and expand  
3 the elements of quantitative literacy they have already learned in the foundation experience and  
4 elsewhere. This phase is made possible by a framework of mathematics across the curriculum,  
5 an array of courses (both within and outside mathematics) and other educational experiences  
6 designed, in content and style, to contribute to the strengthening of quantitative literacy. The  
7 mathematics should be taught in context. Instructional materials should be current, practical,  
8 and conducive to active student involvement. Writing, student collaboration, and thoughtful use  
9 of instructional technology all have potentially important places. The program may also include  
10 the provision of mathematics clinics and other such resources. In the course of these efforts, the  
11 needs, backgrounds, and expectations of people who in the past have tended to have special  
12 problems with mathematics should not be overlooked. Indeed, a well-designed quantitative  
13 literacy program may be of exceptional benefit to those persons who have special difficulties  
14 with mathematics. Conclusion 4. Colleges and Universities should accept responsibility for  
15 overseeing their quantitative literacy programs through regular assessments. A quantitative  
16 literacy program should be managed watchfully. At appropriate times and in appropriate ways,  
17 the results should be evaluated so as to obtain enlightened, realistic guidance for improvement.  
18 Evaluation methods should reflect course goals and teaching methods used, and besides  
19 pointing to possible improvements in the program can themselves be educationally beneficial. In  
20 particular, the evaluation methods should involve clearly applications-oriented tasks.

- 21
- 22 ⇒ Quantitative literacy seems strangely reduced to some understanding of probability and basic  
23 statistical principles. While learning the latter will improve quantitative literacy, it ASSUMES this  
24 literacy to a considerable extent. Wouldn't the students be better served by learning the first  
25 step before the second?  
26
- 27 ⇒ Quantitative literacy extends far beyond those items listed in the description for #5. I believe that  
28 including such illustrations cheapens the goal of helping students attain quantitative literacy. In  
29 particular, quantitative reasoning is about more than balancing a checkbook; we need to call for  
30 a quantitative literacy which relies on three points: the ability to understand and formulate  
31 quantitative questions, the ability to model those questions using mathematics and statistics,  
32 and the ability to find reasonable solutions for these models. The last two of these points require  
33 facility with technical mathematics, including algorithmic facility and conceptual understanding of  
34 why those algorithms work. Further, section #5 needs significant revision from a linguistic  
35 perspective. For example, the phrase "model formulas" doesn't make any sense. People build  
36 models for natural phenomena using the language of mathematics, including symbolic  
37 formalism. We don't "model formulas." Another example is that our students need to recognize  
38 more than "statistical patterns," as there are many patterns that arise in the world around us that  
39 are concrete and not probabilistic.  
40
- 41 ⇒ I find principle 5 and the September proposal in opposition. The September proposal sharply  
42 reduces our students exposure to mathematics. I am concerned by the suggestion that we will  
43 emphasize quantitative literacy over algorithms. Most courses in mathematics try to balance  
44 conceptual reasoning and procedural fluency. However, efforts to eliminate computation usually  
45 end in disaster. In the end, mathematical understanding requires the ability to find the answer to  
46 question.  
47
- 48 ⇒ An explicit focus on quantitative reasoning skills is quite reasonable. This includes, of course,  
49 mathematics (and computation and algorithms as a part), and so the last sentence of the  
50 paragraph following the statement of 5 appears to be a contradiction. But the document as a  
51 whole seems very loosely constructed and should be be rewritten so one can tell which  
52 statements are meant to be taken literally and which are just hype.  
53  
54

1 **6. The general education curriculum will lay the foundation for effective citizenship in a pluralistic**  
2 **society and an increasingly interconnected world.**  
3

- 4 ⇒ It needs to be clearer that students are expected to have some experience learning a second  
5 language when they enter the university. That's foundational. The new gen. ed. requirements  
6 can build on this.  
7
- 8 ⇒ The first paragraph of the rationale does not mention the very important role of (foreign)  
9 language in cultural understanding. After "meaning differs depending on who we are" I would  
10 add "and what language(s) we speak." "Transnational affairs" has unintended associations.  
11 How about "transnational relations"? At the end of that paragraph I would add: "A knowledge of  
12 foreign languages is a key component in international understanding in general and in  
13 understanding the role our native language plays in our thinking." I think the second paragraph  
14 should be a separate item, since it deals with an entirely different matter.  
15
- 16 ⇒ In short, this point promotes multiculturalism and conflict resolution. That's most likely a good  
17 idea.  
18
- 19 ⇒ One wonders how we will do this if students do not study the languages of the cultures of the  
20 world. There exists an extensive literature on the connection between language and culture in  
21 anthropology and linguistics, and yet no mention is made of this bond within this description.  
22
- 23 ⇒ Point 6 states that we want to introduce our students to the life of the mind and complexity.  
24 Point 7 then goes on to totally undermine that by insisting that such complex and nuanced  
25 issues will be simply "assessed." I wonder how that is possible, if what we are striving for is true  
26 complexity.  
27
- 28 ⇒ While the goals of this principle are admirable, there is the danger that students will be exposed  
29 only to "pluralism" as it relates to the US and US culture. This should not be the presumed goal  
30 of the Pluralism principle. Rather, students must be required to explore the world BEYOND THE  
31 BORDERS of the US just as they must know their own country as well. Central to this mission is  
32 exposure to a foreign language and the cultural competence such exposure brings. And for  
33 those of you out there who think a year or two of a foreign language is a useless enterprise, I  
34 respectfully differ. Indeed what happens in those classes is that students learn not only linguistic  
35 structures, but cultural norms, practices, and customs as well. Perhaps the move should be to  
36 provide a stronger, more calculated/concentrated dose of that information into the course plan  
37 so as to alert many of our sleepyhead students that it's not just about language, but about  
38 culture as well. I would hate to see a GenEd program in which students learn only US History,  
39 Literature, Culture to the exclusion of other histories, literatures, and cultures. And while I realize  
40 that our students are woefully lacking when it comes to knowledge of their own country, they  
41 have many more opportunities to learn about it in their own worlds; to learn about a place  
42 outside the US is a much rarer phenomenon and needs adequate attention if we are to prepare  
43 students for the world economy that we face. Don't propose one kind of pluralism while ignoring  
44 or downplaying another.  
45
- 46 ⇒ I am concerned that the mention of culture is so fleeting here - and that this is the only time in  
47 which this word is mentioned in the entire set of principles. What is here is certainly laudable,  
48 but I fear it opens the way to a view that American culture and non-Western culture are all that  
49 our students need to be "rounded" and informed. We neglect Europe, both as an entity in which  
50 we remain deeply rooted culturally and socially, and as a place which, despite superficial  
51 similarity, carries values and identities quite different from ours, to our own impoverishment. We  
52 ignore Latin America to the same disadvantage and, in the current social, political, and  
53 economic environment, actually to our peril.  
54

1 ⇒ I agree with the concepts outlined in each of the items, however, item 6 implies some level of  
2 implied intrinsic knowledge on the part of the faculty as it comes to "knowledge of the mind". I  
3 seriously question the validity of establishing a standard based on value systems that differ  
4 across cultures. I am sympathetic to improving the appreciation of differences in perspective but  
5 I strongly oppose establishing courses where individual morale codes based on incoming  
6 religious or cultural backgrounds undergo classroom/grade related challenges based on an  
7 individual faculty persons belief system or their texts selected for the course. It is not the job of  
8 the University to re-teach values of our students if they do not conflict with legal constructs. We  
9 can sensitize them to differences but we should not be in the business of undermining their  
10 background beliefs, morals and values in the context of courses and grading.  
11

12 ⇒ I write regarding the following passage: "Life does not always present itself as a problem to be  
13 solved; it often appears as a dilemma that must be resolved ... A graduate who has had little  
14 experience in thinking about moral dilemmas as a student is not prepared for the world she or  
15 he will inhabit." There seems to be an assumption here that moral reasoning is primarily about  
16 resolving moral dilemmas. I disagree. If you think about the greatest ethical challenge on  
17 campus today, student cheating, there is no dilemma involved. Students who cheat know it is  
18 wrong but do it anyway. The question for them is not "what is the moral thing to do?" but "why  
19 should I be moral?" The same is true of many public moral failures such as the Enron scandal.  
20 Such cases suggest that what our students need is less to learn to debate pro-and-con on  
21 specific issues, than to acquire the habit of approaching their lives as a whole in a moral and  
22 principled way. They need not just to know what is the right thing to do, but to have the integrity  
23 and courage to actually do it. No doubt the reply will be that it's not the university's business to  
24 teach character. That's true in a sense, but it's also a cop-out that can become a way of evading  
25 any real responsibility. We can't instill character where it is absent, but we can help the seeds of  
26 it to flourish by teaching students to think critically about the moral coherence of their lives. That  
27 is what the great moral philosophers, from Plato and Aristotle to Kant, Mill, and beyond, have  
28 always done. I think that if we want our students to develop the strength of character to discern  
29 what is right, and to do it even when others around them are not, that is the direction in which  
30 we ought to turn. Not that only philosophy is helpful; literature, art, history, and case studies  
31 drawn from many different disciplines can also be of great value. However, the goal should be  
32 to help students think holistically about the meaning and value of their lives, and not merely to  
33 resolve moral dilemmas.  
34

35 ⇒ Lay foundation for effective citizenship in a pluralistic world: who could argue with this? Can a  
36 set of Gen Ed requirements achieve it? I think it depends on what you mean by laying the  
37 foundation. But also moving beyond "problem-solving" can help focus on larger questions of  
38 citizenship.  
39

40 ⇒ I applaud the two objectives of Principle 6, i.e., better cross-cultural understanding, and better  
41 understanding of the complexities of moral and ethical issues. Courses designed to address this  
42 principle could address both parts of this principle in one and same course.  
43

44 ⇒ Strong language departments and strong programs in areas such as the arts and the history of  
45 Asia and Africa will be an important part of implementing this principle.  
46

47 ⇒ The general curriculum that has been outlined here looks good with one major exception - there  
48 appears to be only lip service given to cultural competence and living in a pluralistic society, not  
49 to mention a global economy, but where is the "meat" to this proposal? Students in the  
50 university mostly come from a "monocultural" experience - that is to say, they have few or no  
51 opportunities to live with and learn about other cultures and have lived in an environment where  
52 everyone looks like and lives like them. In order to get a cultural education (the main thing  
53 missing from this proposal), students must begin with cultural self-awareness, followed by  
54 learning how to learn about cultures (a cultural learner), and then they should be exposed to in-  
55 depth learning about relevant cultures to either Kentucky or the global economy. Putting diverse

1 populations together is necessary but insufficient to promote a diverse and inclusive campus.  
2 Students must learn how to expand their "cultural comfort zones" so that they are prepared and  
3 comfortable in meaningful interactions and experiences with students and others from other  
4 cultures. This involves not just the courses that are implied from my previous suggestions  
5 concerning cultural learning, but should include learning foreign languages (that does not seem  
6 to be represented by the proposal). Currently, UK is behind all comparative educational  
7 institutions with respect to the number of students who can speak in foreign languages. Another  
8 part of this cultural learning is education abroad - immersion in other cultures where students  
9 learn academically as well as culturally and they should have the appropriate language skills.  
10 These abroad opportunities should be from faculty-led courses/programs. Following these  
11 suggestions would really prepare students for not only the future of a pluralistic America, but  
12 also to be active participants in the emerging global economy. It is our obligation to have a little  
13 vision and to prepare our students in Kentucky for the world that they will inherit.  
14

15 ⇒ The University of Kentucky has identified internationalization as a major goal of its strategic  
16 plan, a goal reflected at least in part in the sixth Principle of a Revised Education Curriculum for  
17 the University of Kentucky ("interconnected world"). In the light of Principle 6 and the  
18 University's overall goal of internationalization it is something of a contradiction that there is no  
19 reference in the statement of Principles to the role that world languages other than English  
20 might play in a revised curriculum. One might infer from this omission the assumption that, since  
21 English has become the world language, our students need no other. In the light of Principle 7,  
22 which stresses learning outcomes and assessment, it is noteworthy that the proposal put  
23 forward by the USP Reform Steering Committee this past fall left unaltered the existing world  
24 language requirement of one year of university-level language courses or its "equivalent." In  
25 almost all instances students satisfy this requirement by completing two years of high school  
26 language courses, courses frequently taken, at least by Kentucky students, during their  
27 freshman and sophomore years. Unlike English and math skills language proficiency is not  
28 tested by the standard entrance exams. It is in effect the only USP requirement that can be  
29 satisfied by high school seat time. We in the Department of Modern and Classical Languages,  
30 Literatures and Cultures believe that any reform of the USP requirements should include an  
31 assessed language requirement. Assessing incoming students and reworking the current  
32 requirement will bring UK in line with many of its benchmark institutions, including in particular  
33 the University of North Carolina-Chapel Hill, the University of Wisconsin-Madison and Ohio  
34 State University. More important, it will make a substantial contribution toward the  
35 internationalization of the campus. We propose that students fulfill the language requirement in  
36 one of four ways: 1) When students enter UK they take an internationally recognized proficiency  
37 exam such as STAMP developed by the Center for Applied Second Language Studies at the  
38 University of Oregon and currently available on-line for \$15. (For information on the Standards-  
39 based Measure of Proficiency see <http://casls.uoregon.edu/stamp2.php>. It is currently endorsed  
40 by the Kentucky Department of Education and used around the country as an affordable tool to  
41 measure language proficiency in Chinese, French, German, Japanese and Spanish.) Those  
42 students receiving the equivalent of intermediate-mid proficiency or higher on a scale developed  
43 by the American Council on the Teaching of Foreign Languages in French, German and  
44 Spanish, along with Latin the commonly taught languages in American high schools, will have  
45 fulfilled the requirement and be encouraged to enroll in a 300+ course taught in the language in  
46 question. Up to 6 retroactive credits should be given for third- and fourth-semester courses in  
47 the language assessed if students pass a 300+ course in that language with a grade of B or  
48 better. Corresponding levels of proficiency in Latin and the less commonly taught languages will  
49 have to be determined. 2) Students who do not meet the proficiency requirement appropriate to  
50 the language previously studied will be required to demonstrate this proficiency level after  
51 completing the necessary coursework in that language and retaking STAMP. (Appropriate  
52 assessment measures will be applied to Latin and the less commonly taught languages.) No  
53 100-level courses in languages previously studied in high school will apply to graduation  
54 requirements. Students who subsequently successfully demonstrate this level of proficiency in  
55 the language studied should also receive three retroactive credits for the third-semester course.  
56 3) Students may also choose to study a language other than the language studied in high

1 school. In this case they must successfully complete the first three semesters of the new  
2 language to fulfill the requirement. 4) Students may also choose to fulfill the language  
3 requirement by enrolling in an approved study-abroad program that offers a minimum of nine (9)  
4 credit hours of instruction in the language of the host country.  
5  
6

7 **7. The curriculum will specify learning outcomes and the processes for the systematic assessment**  
8 **of those learning outcomes, and ongoing curricular improvement.**  
9

10 ⇒ Many effects of education are not measurable, such as a increased consciousness. There  
11 should be some recognition of this in the discussion. Perhaps it is truer to say that the most  
12 IMPORTANT effects of education are inherently immeasurable, i.e. not reducible to assessment  
13 in numerical form.  
14

15 ⇒ The process of developing courses with learning outcomes is more synergistic and less  
16 sequential than this suggests.  
17

18 ⇒ Our undergraduate curriculum in engineering already does this, through our active involvement  
19 in continuous quality improvement, surveying of graduates, alumni, and employers, and  
20 adherence to a rigorous accreditation program schedule. Presumably, our SACS process  
21 provides a similar format. So what is the intent of this statement? If we are not doing this already  
22 as a faculty, I am shocked.  
23

24 ⇒ I am unconvinced that over-specification of outcomes and assessments provides results that  
25 warrant the enormous amount of effort that it requires.  
26

27 ⇒ Accountability and responsibility are good. Being able to really monitor if a curriculum is doing  
28 what we want it to do is good. My fear is that, in doing so under the rubric of assessment, we  
29 create a bureaucratic and onerous burden for reporting on the faculty who teach in Gen Ed, and  
30 impose a tyranny of policy experts and bean counters over the teaching faculty.  
31

32 ⇒ Item 7 seems to deal more with curriculum administration than it does with curriculum content,  
33 scope or direction. As such, even though the point is well-intended, I suggest it be removed  
34 from General Principles or rewritten. That a curriculum will specify learning outcomes is a good  
35 element of any curriculum (or course) design but the assessment and improvement portion is  
36 unclear. Is it the intention for students to be evaluated on a course-by-course basis, will  
37 students be subjected to an overall competency examination before qualifying for graduation, or  
38 does this just mean that current and future graduates will be surveyed at some point to see how  
39 well they felt they were prepared for the real world? These are administrative processes, not  
40 principles. Aside from that one item, there is little to object to in this document. Motherhood and  
41 apple pie and all that. However ... I strongly feel that this document lacks any emphasis on  
42 incorporating the liberal arts as a larger part of the general education of our students than can  
43 be incorporated into the GenEd program. Surely we ought to recognize that the university  
44 education process encompasses all campus activities, and that education doesn't start and stop  
45 at classroom doorways? I'm not a member of the A&S College, but I had numerous experiences  
46 with the arts as an undergraduate that I had to find out about by myself, and my life is richer for  
47 them. As a teacher, however, I have had entire classes of students, especially those from rural  
48 backgrounds, who actively avoid cultural events such as plays and non-rock concerts even  
49 when presented as opportunities for extra credit! In reality, these are the kinds of experiences  
50 that university students really need to have to advance after their first job (it sure helps to be  
51 able to talk to your boss's wife about her artwork over dinner, just as much as it helps to be able  
52 to talk to your boss about fishing). We faculty fail to mention the necessity for cultural education  
53 to our students, and we fail to encourage them to take advantage of opportunities available to  
54 them. We need to act as more positive role models here. We don't have to tell them that they  
55 have to like Shakespeare, but we sure can tell them that having seen a Shakespeare play will

1 be helpful as general knowledge! To conclude: Where is the part of the General Principles that  
2 states that we aim to turn out well-rounded students (not just students who are competent and  
3 sensitive to the multi-cultural, multi-ethnic backgrounds of their next door neighbors and co-  
4 workers)? Cultural awareness can't be taught through coursework any more than the teaching  
5 of good manners, but we (faculty) can help students to realize that knowing about our own  
6 culture is a valuable part of a university education too. I suggest that the General Education  
7 Principles be revisited to suggest something along these lines, and I further suggest that all  
8 faculty get emails and flyers about campus events so we can announce them to students.  
9

- 10 ⇒ The first principle valuing understanding the process of inquiry over specific knowledge content  
11 is absolutely essential. We are overwhelmed with information with a ridiculously short half-life.  
12 This should be the primary guiding principle. #7: Specifying learning outcomes is very important,  
13 but has often turned out to be an excuse for measuring lower level learning objectives simply  
14 because that could be done easily. Documenting sophistication of thought is a much more  
15 daunting process, but has to remain a goal if the first principle is ever to really be accomplished.  
16
- 17 ⇒ Learning outcomes. If we are going to do this, we would be better off creating a small set of core  
18 courses in a small number of departments. These should be four- or five-credit courses with  
19 resources for TAs and faculty to really teach the courses well. We need an investment in Gen  
20 Ed of a fairly substantial sort. Then it would be possible to measure outcomes. How anyone  
21 could measure outcomes of the current mess of courses is beyond me.  
22
- 23 ⇒ I agree with the comment below which has been made by somebody else before. Accountability  
24 and responsibility are good. Being able to really monitor if a curriculum is doing what we want it  
25 to do is good. My fear is that, in doing so under the rubric of assessment, we create a  
26 bureaucratic and onerous burden for reporting on the faculty who teach in Gen Ed, and impose  
27 a tyranny of policy experts and bean counters over the teaching faculty.  
28
- 29 ⇒ On-going assessment must involve the teaching faculty in the departments.  
30  
31

### 32 ***Comments about the Arts***

33

- 34 ⇒ Because the arts have only an indirect presence in the new curriculum it is unfortunate that the  
35 College of Fine Arts may be marginalized within the University community by this curriculum. Art  
36 studio practice is both quantitative and qualitative.  
37
- 38 ⇒ I just read the comments and felt persuaded by what a colleague had to say about the arts. Is  
39 this a #8? Or should arts be integrated in other places in the document? Students do need to be  
40 analytic and persuasive. But in a world in which things are changing quickly, they must also  
41 have the capacity to imagine. Not every student will be an artist or a patron of the arts. But  
42 every student should be able to marshal creativity to persuade and analyze or understand when  
43 others are doing so.  
44
- 45 ⇒ I found it quite disappointing that among the seven principles for a general education at this  
46 university there was no mention of the arts. As the university increasingly embraces the model  
47 of higher education as pre-professional training, it seems to me that we have an increasing  
48 rather than lessening responsibility to promote the cultural experiences of our students, which  
49 should be as much a part of their world view as any form of ethical education. Nor do the  
50 principles embrace a central fact of 21st century life, that culture and the transmission of both  
51 persuasion and information are becoming increasingly visual, not textual, in nature. I think the  
52 principles represent a 20th century understanding of general education rather than one which  
53 fully embraces 21st century realities and the actual day-to-day experiences of the young people  
54 we profess to teach.  
55

1  
2 **Miscellaneous Comments**  
3

- 4 ⇒ Based on the Kentucky General Education Transfer Agreement, students may be block, core or  
5 fully certified. I see nothing in the proposal that indicates if a student is block certified, how does  
6 that equate to what would be completed at UK in the new general requirements. We need to  
7 know how each block/core would be equated. Thank you.  
8
- 9 ⇒ Excuse me if this sounds strange but what is the argument for change in USP? I'm a new  
10 faculty member and the gen ed requirements seem basically sound. Complicated perhaps but  
11 so is education. I'm sure there are some problems/issues but is really broken? Do we need a  
12 fix? Do we need such a drastic fix? Coming from years in the corporate world this seems more  
13 like managers doing something for the sake of doing it.  
14
- 15 ⇒ I think a 1 credit 5 week module on personal finance would be very useful to students. I think it  
16 is equally important as statistics, ethics, etc. that will be covered as part of the USP reform.  
17 Students need to understand the time value of money and how you make an educated decision  
18 on buying or leasing a car, saving for retirement, or choosing a home loan. I would agree that  
19 they should see this in High School, but they are not. I think if we want to train students to be  
20 good global citizens a personal finance module should be included.  
21
- 22 ⇒ I must admit, I don't quite understand why we have these principles. If they are the principles  
23 behind a proposal that so soundly rejected, why would it be thought these principles would be  
24 any more acceptable than the program that stemmed from them? A fresh start, from scratch, is  
25 what is needed. In my view, the faculty has already rejected the approach embodied here  
26
- 27 ⇒ It is saddening, in my view, to have seen that nowhere in the provost's whitepaper, the  
28 committee proposal, or virtually anywhere else in this entire process has there been any  
29 indication that, in some form, at some time, it might actually be good for every UK student to  
30 read The Federalist Papers, Antigone, Locke, Freud, Martin Luther King, Germaine Greer,  
31 Confucius, Galileo... There is a complete lack of appreciation of the great documents of human  
32 history, of the great humanist statements. The apparent unawareness of the fact that we, our  
33 culture, and our problems are all products of a past, that learning is a dialogue not only with the  
34 present but what went before, is distressing. I would very much like to see this embodied in a  
35 principle as we move forward.  
36
- 37 ⇒ Great Job. Need I say more? If you want, send your critics to [www.studyrebel.com](http://www.studyrebel.com). That will  
38 give them a student perspective of the current educational system.  
39
- 40 ⇒ The most disturbing line in the whole document has to be “taught as far as possible by full-time  
41 faculty members.” If this is going to be pushed off onto graduate students, the whole purpose  
42 will be lost. How can graduates students teach about epistemology when they are still in the  
43 process of learning about the epistemology of their field? If this is to work, it must be stipulated  
44 that ONLY full-time faculty can teach these courses. If the university cannot commit to that, then  
45 the changes should be scrapped.  
46
- 47 ⇒ I'd like to comment on the set of principles but there is barely anything there. The only thing of  
48 substance is that USP will be 30 rather than 40 credit hours. Divorced from any context it is hard  
49 to really say much about thing. I see we are still rejecting content which might be OK for law  
50 (Derek Bok's background) but seems a bit silly to force as a one size fits all solution of a lot of  
51 other disciplines. The thing that is shockingly missing is any mention of how these proposed  
52 USP changes will change (or be adapted to fit) the structure and finances of the university.  
53 Right now A&S teaches the lion's share of USP requirements. How will the proposed USP  
54 changes affect this and more importantly what does this mean for the financial resources  
55 provided to departments and colleges. Right now credit hours taught in A&S generate more

1 tuition revenue than A&S receives in budget. All other colleges run at a deficit. Will there be a  
2 specific formula that determines changes in budgets? Will things just remain how they are? Or,  
3 will it be determined behind closed doors? I'm sure there will be calls to keep USP reform a  
4 separate issue but to allow the budgetary issues to be taken off the table is naïve. USP changes  
5 will have an impact on finances and is certainly being discussed at high levels. I would prefer  
6 that it be discussed openly along side any other principles.  
7

8 ⇒ The current plan seems to assume that there is one dominant epistemology for the three broad  
9 areas of arts, behavioral sciences, and natural sciences. I find this to be a very faulty  
10 assumption. Within my department there are two dominant epistemologies present, which one is  
11 going to be covered in the behavioral science section? Again, within my subfield there are at  
12 least three different epistemologies, which one would be covered? What seems likely is  
13 individual instructors are going to focus on the epistemology they use, what students will see will  
14 just be a function of the teacher they happen to take. This seems to defeat the purpose of the  
15 reforms.  
16

17 ⇒ I am concerned that the current emphasis on course evaluations by students as the only means  
18 to evaluate the effectiveness of courses is and will continue to undermine some of the goals of  
19 the current and new Gen Ed Curr. I believe there may be a tendency to "dumb down" curriculum  
20 with the goal of achieving better course evaluations, esp by untenured faculty. I do believe that  
21 course evaluations by students reflect some aspects of the effectiveness of teaching, but I also  
22 think they reflect student expectations for the amount of work they feel is appropriate in courses  
23 that fulfill Gen Ed requirements versus courses in their major. In other words, students expect to  
24 work less in Gen Ed courses, esp large lecture ones focused on topics which they consider  
25 "soft" than in topics they consider "hard" or those in their major. If they then find they need to  
26 work harder than their expectations, they reflect this by giving the quality of the course a lower  
27 number on the course evaluations, which is then interpreted by other faculty and administrators  
28 as a reflection of the instructor's ability to teach. Hence, I believe there need to be more  
29 mechanisms to evaluate the content and quality of courses and teaching than course  
30 evaluations by students alone. As long as this is our only measure, I do not believe we will  
31 effectively achieve the Principles of the Gen Ed Reform.  
32

33 ⇒ I would like to make an overall comment about how best General Education reform needs to  
34 move forward. To insure that any general education reform proposal wins the broad support of  
35 the faculty and is grounded in practical experience, it is important that the process be faculty-  
36 driven from the beginning. Faculty ought to play a dominant role in the analysis and formulation  
37 of detailed and carefully thought-out reforms; in particular, experienced and respected teachers  
38 who have taught general education courses and have thought deeply about how best to  
39 implement them should play an integral rather than a peripheral role in the process. No plan  
40 conceived from the top down can or should win faculty support. It is the faculty who will  
41 implement any such reform proposals and who will reap the benefits of good planning (or bear  
42 the cost of bad planning!) long after the current cast of administrators have left the scene. While  
43 the faculty have every reason and interest to invest in a carefully thought-out reform of our  
44 general education curriculum -- and not needlessly obstruct its progress -- the faculty also have  
45 a role as the real owners of the curriculum and those with the greatest long-term investment in  
46 the success of the University of Kentucky and the respect accorded to our graduates. In  
47 particular, we should avoid the temptation to introduce attention-getting, drastic changes which  
48 may serve as good publicity for decision makers but may not be based on practical teaching  
49 experience and careful consideration. Particular respect and attention needs to be given as well  
50 to the disciplinary expertise of the faculty. For example, "Quantitative literacy" needs to be  
51 defined by those who have been most engaged in teaching general education courses in this  
52 area, namely the faculties of mathematics and statistics, drawing as well on the thoughtful and  
53 carefully crafted statements of their respective professional societies. A well thought-out reform  
54 proposal, resulting from a process which respects the central role of the faculty, will move the



1 University of Kentucky forward and produce long-term benefits for our students and faculty. A  
2 hastily conceived, top-down solution with no faculty buy-in will do the opposite.

3  
4 ⇒ But the document as a whole seems very loosely constructed and should be rewritten so one  
5 can tell which statements are meant to be taken literally and which are just hype.

6  
7 ⇒ In the end all this comes down to money. All these principles sound great in the abstract but  
8 what happens when the rubber hits the road. Especially since UK is facing a 12 percent budget  
9 crunch. How do we pay for more discovery seminars? What real incentives do  
10 faculty/departments have to join in? (Besides, the old horse of improving student education,  
11 sure everyone supports the idea in general but the specific implementation will have  
12 costs/benefits attached). Or are the faculty expected to simply buckle down and do as we're  
13 told. It really seems like an unfunded mandate to me with little clarity as to whether it will  
14 actually "improve student education"

15  
16 ⇒ I applaud the idea of helping our students to be information-savvy. Right now, the reform does  
17 not address the communication of information in visual form at all. It seems to me that the visual  
18 is a critical component in modern education. I agree that the students need to think trans-  
19 nationally and about diversity. The goal of the reform should be to emphasize the international  
20 not only in terms of developing non-US cultural competency, but also actively to promote the  
21 study of foreign language and study abroad.

#### 22 23 24 **Comments about overall document:**

25  
26 ⇒ Excellent and exciting. A giant step forward.

27  
28 ⇒ This comment applies to all seven principles in the sense that so far, the proposals for reform  
29 seem not to acknowledge or examine programs and courses that currently are achieving many  
30 of the goals set out in this reform. A revised document should look to on-campus examples  
31 (Honors, Discovery Seminar Program, Global Scholars) whose curricular successes could be  
32 applied across general education.

33  
34 ⇒ Many of the principles sound good in theory. However, I would like to focus on two major  
35 hurdles...My second concern is the way a knowledge of the rest of the world seems to be  
36 divorced from any in-depth knowledge of the rest of the world or the way others communicate.  
37 Cultural knowledge gained only from the outside is again a dangerous endeavor. A knowledge  
38 of another language (beyond the two years of high school needed for admission) is a must.  
39 Language courses taught with an eye towards culture are effective.

40  
41 ⇒ I applaud the Senate Council for working to articulate principles of design. I believe starting this  
42 way is critical. Strangely, we require and recognize the need for learning outcomes on our  
43 syllabuses, but we sometimes resist doing the hard work of establishing similar constructs for  
44 much more important, more challenging endeavors. So the Council is to be commended.  
45 However, there is no need to start again! This job was already done by the External Review  
46 Committee in a document that was the product of many months of intense work, revision, and  
47 faculty vetting. The principles set forth in that document became part of the larger GERA report  
48 and the hub of the Provost's LEAP proposal. I would submit that the ERC report, although  
49 imperfect in many ways, did a much better job of articulating and separating goals and  
50 outcomes than does this document. The current document is simply not very well written; it  
51 mixes all sorts of ideas - curriculum outcomes, program goals, program outcomes, learning  
52 objectives - all into a vague, mix of "principles". It is critical to distinguish these different entities  
53 if there is ever to be a chance of coming up with a coherent, assessable general studies  
54 curriculum. But more importantly, WHY are we starting this process over? Is the Council not  
55 aware of the ERC document? I would also like to clarify one point. The recent proposal from the

1 Provost's Curriculum Committee was formed around the principles that appeared in the  
2 Provost's LEAP document, which directly reflected input from a large segment of U.K. faculty by  
3 way of feedback, suggestions and criticisms from approximately 10 public forums. Hence, a lot  
4 of the heavy lifting has already been done. Once one acknowledges this, there's considerable  
5 merit in thinking about focusing the Council's efforts toward making practical changes to that  
6 proposal, as opposed to starting completely over, with a set of guidelines that are in many ways  
7 not nearly as useful as those given in the ERC report.  
8

9 ⇒ In view of today's headlines (12% budget cut), I'm hoping this plan is going to be tabled for a  
10 while. What little money and energy we have should be spent on keeping the university running.  
11

12 ⇒ Many of the principles seem to reflect specific proposals that were under consideration in Fall  
13 2007. Some of the specific proposals generated sufficient criticism to render them lifeless, but I  
14 think others may continue to be viable. Rather than forcing the next committee to start with  
15 nothing in the way of concrete proposals, I would recommend noting (either in this document or  
16 an appendix) that proposals exist that speak to certain principles. The next committee may  
17 choose whether or not to use the earlier proposals, but, given the tremendous amount of time  
18 that has already gone into this project, I would not want to see the earlier proposals dismissed  
19 out of hand.  
20

21 ⇒ The wording is so flowery as to be meaningless at times. It is important that a document stating  
22 principles be clear. Here are some cases in point: "The foundational essence of general  
23 education". What does "foundational" mean in this context? "critical and thoughtful approaches  
24 to solving problems". What does "thoughtful" add to "critical"? "beyond the texture of disciplinary  
25 problems and issues". How do problems have texture? What is meant by "issues" that is not  
26 covered by "problems"? "to explore the epistemologies that inform and shape the nature of  
27 intellectual inquiry". There must be a better way to say whatever this means. "the life of the mind  
28 as it informs moral decision-making". I don't know what this clause means.  
29

30 ⇒ It is never clear why this document exists. It implies that the current USP situation is broken, but  
31 it never indicates in what way. Instead, it leaves the reader to infer that, at present, the USP has  
32 these shortcomings: students are not developing critical thinking skills -- I disagree. students are  
33 acquiring specific knowledge content -- I don't see a problem with this outcome. The USP  
34 consists of more than 30 credit hours of course work -- Yes, but much of that also advances  
35 most majors, so it is an unfair criticism. The USP does not identify or strengthen connections  
36 between USP courses and student majors -- only true for some majors. Is it a problem? The  
37 USP does not smooth the transition from high school -- I don't think that's a valid goal. The USP  
38 does not involve enough full-time faculty -- perhaps true and worthy. The USP does not focus  
39 on written communication -- I think that is worthy but a false accusation. The USP does not  
40 focus on quantitative reasoning skills -- Worthy, again a false accusation. The USP does not lay  
41 a foundation for citizenship -- Worthy, clearly a false accusation. The USP fails to specify  
42 learning outcomes -- Not necessarily worthy, not necessarily true.  
43

44 ⇒ When, oh when, are we going to get out the remediation business? It used to be that General  
45 Education promised that students would benefit from exposure to various disciplines to which  
46 they might not otherwise have access or to those disciplines that frequently build the foundation  
47 of civic, intellectual, and professional life for our students. Increasingly as I read the Gen. Ed.  
48 proposal I'm struck by the fact that much of what they set out to do is remediate what students  
49 should have begun to learn in high school! I just wish that someone, somewhere would admit  
50 that many, although not all, of our students come to college ILL-PREPARED. Many cannot  
51 write, cannot think, cannot do basic math. We aren't here to fix all those deficiencies because  
52 otherwise we'll never be able to train students in a particular major or prepare them for life after  
53 graduation. That said, perhaps one of the more appealing components of the Gen. Ed.  
54 principles is that the program would extend over 4 years so that students would, ideally, be able  
55 to see some progress in how they think about issues and topics. Moreover, making the Gen Ed

1 experience part of the total education experience underscores that the development of critical  
2 thinking, good writing, analytical acumen is a process that really never ends, but get more  
3 sophisticated as one's skill set improves.  
4

5 ⇒ The overwhelming reaction I had to this document is "the devil is in the details." The principles  
6 are so vaguely stated and filled with currently popular jargon that it is difficult to know whether  
7 it's something I would endorse. As best as I can determine, the concrete suggestions implied in  
8 this document are: (a) to reduce the USP to 30 credit hours; (b) emphasize "learning  
9 experiences" rather than "knowledge content," (c) increase the involvement of full-time faculty in  
10 teaching the first year curriculum; (d) focus on writing and quantitative reasoning, not  
11 "mathematical computation and algorithms"; and (e) assess learning outcomes. Of those  
12 suggestions, I can wholeheartedly endorse only (c) and (e). If (b) means that content will be not  
13 a priority of the revised USP, I would be greatly disappointed. I realize I am in the minority in the  
14 academy today, but I view a liberal arts education as necessitating a basic and core set of  
15 content. In my opinion, it is a disgrace if a student can receive a B.A. without having taken a  
16 world and U.S. history course, or a great works of literature course. Critical thinking skills are  
17 important, too, but it is just as easy to teach those in the context of communicating basic liberal  
18 arts content. I do not understand why one has to be emphasized over the other. If (d) means, as  
19 I think it does, that we will abandon requiring college level algebra, I would have the same  
20 reaction as I wrote above: A student who gets a B.A. from a university aspiring to be in the top  
21 20 should know algebra. As for (a), my cynical interpretation of that recommendation is that it  
22 reflects the pragmatics of the sorry infrastructure at UK (too many students, too few faculty)  
23 rather than any sound pedagogical rationale. Finally, reducing the general writing requirement  
24 and shifting it to the majors has not been a successful strategy, at least not in my experience as  
25 a faculty member in a department with a very large number of majors. I agree with this  
26 document that writing should be a major emphasis in an undergraduate education. UK does a  
27 poor job in teaching writing. I do not believe that we will do any better job by reducing the  
28 amount of writing that is required in the first year.  
29

30 ⇒ I support some points made by colleagues: 1. critical thinking cannot be accomplished in the  
31 absence of data. Various, even contradictory, data is a major prerequisite for formulating a  
32 problem, in Arts and Hum no less than in sciences. (A semester disciplinary course offers a  
33 better practical chance to taste original inquiry than a 5-week mass module.) The mention of  
34 "elective work" raises the question of what students will do with their new free hours. In  
35 designing actual program offerings meant to fulfill these principles, it may make more sense to  
36 start from the majors. Does it make sense to require Math/Econ/Physics majors to take  
37 Statistics for Citizens? 2. I agree 30 hours should be the top limit. Also USP should not be the  
38 Chinese menu of miscellaneous courses it is now. Maybe we need to be more honest about the  
39 implications of enshrining a difference between major goals and gen ed goals for learning. (The  
40 5-week module solution seems to envision a happy experience as a primary outcome.) Is there  
41 any evidence that the major prereq courses that currently count for USP are less effective than  
42 the special USP service courses that do not count for majors? I'd be surprised. 3. This is a bit in  
43 conflict with 2. And in application to program design, it led to strange problems: writing, info-  
44 literacy, visual skills, foreign languages are just skills that may be required by majors, but Ethics  
45 is a special field? 4. Do we need a program change to commit regular faculty to freshmen? 5. A  
46 very funny first line: luckily about Math, not Eng. I don't know that we need to enshrine ANY two  
47 skills in the principles. But the comment on visual citizenship preparation is valid, and languages  
48 are a distinct prereq for global citizenship (and also for advanced study in many grad fields).  
49 Pragmatically, I find many students find rather late that they want to do something that requires  
50 languages. Writing more language into USP is a way to prepare everyone to take paths they  
51 may only find out about as juniors. 7. Yay NASAD Other: we would not be quibbling about  
52 phrasing these principles, which are all on the whole admirable, if the recent proposal for  
53 program changes had been developed out of the faculty and the departments. And the practical  
54 means for achieving these goals remain very debatable. If gen ed is a real priority, it will need  
55 funding at least to the level of making a discovery seminar slot for every freshman. (It appeared

1 at the Conversations that UK proposed the 5-week modules as a cheaper way to handle the  
2 numbers. Not congruent with 4.)  
3

4 ⇒ The principles are fine, but execution is everything. Ask for input after the principles are realized  
5 in an actual curriculum.  
6

7 ⇒ Many parts of the document are full of grand sounding ideas that are popular in the media, but  
8 are suspect academically. The idea that students must be taught how to survive in a more  
9 interconnected world, assumes that the world is more interconnected. However, based on how  
10 one defines this term, there are published studies (international relations, international trade,  
11 etc) that show the United States to be less interconnected than in the past. This is especially the  
12 case when the term is defined as vulnerability. Are we basing our new curriculum on a set of  
13 assumption that are academically based or driven by the evening news?  
14

15 ⇒ Any proposed General Education must include ongoing institutional evaluation of the extent to  
16 which it meets whatever principles are ultimately adopted. So perhaps this should be explicitly  
17 stated as a final formal principle. Indeed, it would be helpful to assess to what extent our current  
18 courses and programs meet these principles. I do not believe that one can simply state that the  
19 current program and all of its courses "fail," and that a new, potentially better, program will  
20 "succeed." We would do well to begin by carefully examining the elements of our current  
21 courses and instruction to identify the successes and strengths that we presently have in this  
22 regard, and to use this information in crafting a proposal to enhance and replicate these  
23 successes. We have many dedicated faculty members currently devoting enormous amounts of  
24 time and effort into lower division instruction, with high degrees of commitment, enthusiasm,  
25 experience, and thoughtfulness. A successful program will result from the early, continuous, and  
26 intimate involvement of these faculty members. On the other hand, any process that begins with  
27 the assumption that faculty currently teaching the USP courses are all disinterested and doing a  
28 generally poor job will almost certainly fail. I have taught courses of many sizes. Perhaps I suffer  
29 from a lack of capacity, but I simply cannot imagine teaching, say, violin, German, or creative  
30 writing to a class of 300, or 200, or even 60. Fostering active inquiry and analysis within the  
31 classroom is no easy task, especially when one has a class of students who might prefer a  
32 simple enumeration of facts to memorize or procedures to deploy within clearly specified  
33 contexts. I have had the privilege of teaching in both the Freshman Discovery Program and the  
34 Honors Program, and there is a depth of discussion in classes of as large as 30 that cannot be  
35 matched in classes of 70, even with additional TA support or recitations. Bok has been quoted  
36 in the earlier USP proposal, and since then I have read the article in the Chronicle of Higher  
37 Education about one of the innovative courses at Harvard: "Harvard Humanities Students  
38 Discover the 17th Century Online," 10/26/2007. This sounds like a wonderful course embodying  
39 all of the principles of General Education. It also was made possible, as the primary faculty  
40 member explains, by Harvard's "insane resources." UK does not have insane resources (at  
41 least, not insanely high). Some parameters must be provided for anticipated resources, and we  
42 should not be too disappointed in outcomes if resources for more effective outcomes prove to  
43 be unavailable. We must, of course, do the best we can within the parameters provided, but I  
44 am not hopeful that any General Education program involving class sizes of greater than 30 will  
45 make much greater headway toward achievement of the stated principles. One must give  
46 careful thought to how to institutionalize any courses or sequences of courses that might be  
47 created or revised. If they are too dependent upon the particular personality teaching them, then  
48 they will vanish when the instructor retires, resigns, or turns his/her attention to other matters.  
49 We have seen such challenges in the past with "pairings" of courses for the cross-disciplinary  
50 requirement, which is a wonderful idea when faculty members in different departments truly  
51 collaborate, but can degenerate into only mildly related courses when instructors shift.  
52

53 ***Comments from Groups (colleges, faculty councils, committees, etc.):***  
54

1 ⇒ The College of Agriculture Faculty Council discussed the principles at our January meeting.  
2 Overall, the general principles are good ones, and give broad direction for USP reform. Other  
3 general comments: #5 - qualitative reasoning should be included as well as quantitative. #6 -  
4 one approach to the interconnected world that our students will need is geo-spatial analysis and  
5 reasoning. #7 - we agree with the direction of this principle, but, as stated in the paper, it's  
6 difficult to determine until we know what is being evaluated. The level of analysis will also be  
7 important - is it the curriculum or course level, or the department level. We have expertise in our  
8 faculty on learning outcomes, and we should utilize that expertise to guide us in assessment  
9 efforts. There will probably be more specific comments when more specifics of the general  
10 education plan is determined.  
11

12 ⇒ The Directors of Undergraduate Studies in the College of Engineering met on January 30 to  
13 formulate a response to the "Principles of a Revised General Education Curriculum for the  
14 University of Kentucky." All those in attendance recognized both the importance and difficulty of  
15 the task. We found it difficult to criticize any of the seven principles listed by the USP Reform  
16 Steering Committee. However, as the previous USP plan illustrated, the interpretation and  
17 implementation of those principles could lead to results that are not in the best interest of  
18 students in the College of Engineering. For example, we agree generally with Principle #1 that  
19 addresses the fundamental essence of general education. The explanation given for this  
20 principle goes on to say that "general education establishes a foundation for critical and  
21 thoughtful approaches to solving problems and strengthening intellectual development." We  
22 would add to this that we believe this is the essence of engineering education as well. Our  
23 students learn how to solve real-world problems that are subject to physical laws and  
24 socioeconomic constraints in situations where the parameters are not fully defined, and the  
25 students must exercise judgment in developing solutions. Therefore, we believe that this  
26 general educational objective is at least partially satisfied by courses in our majors, and some  
27 consideration should be given to this fact in developing the general education curriculum for  
28 College of Engineering students. We would like to see Principle #2 go even further and say that  
29 any revised general education curriculum will not add hours to any current undergraduate  
30 degree program. Cutting hours from upper level courses is not an option. Our programs in  
31 engineering and computer science are accredited by the Accreditation Board for Engineering  
32 and Technology (ABET). This organization is responsible for accrediting all engineering  
33 programs in the nation. Graduation from an ABET-accredited engineering program is a  
34 prerequisite for licensure as a professional engineer. ABET has established both general  
35 engineering and program-specific criteria that must be satisfied. We cannot jeopardize  
36 accreditation of our programs by cutting away at those upper division requirements. We also  
37 agree with Principle #3, which addresses strengthening the connections between coursework in  
38 general education and the student's major field of study. However, we would interpret this to  
39 mean that each college could develop its own general education curriculum (with suitable  
40 oversight) rather than having a one-size-fits-all approach for the entire university. While we  
41 agree with the statement of Principle #4, we have concerns about the interpretation that is  
42 offered in the document. Specifically, we don't agree that the study of knowledge replaces the  
43 need to acquire actual knowledge in basic math and science. The technological literacy  
44 demanded by today's society, in fact, is based on this knowledge. We believe this educational  
45 responsibility is at the core of the mission of a land grant institution. We also envision problems  
46 in implementing Principle #5. This does not pose a problem for the College of Engineering since  
47 most of our students are already required to take a course in probability and statistics. However,  
48 we believe it will be difficult to accomplish the goal of teaching students to "deal with statistically-  
49 based hypotheses" without some prior, rigorous mathematics in the curriculum. Finally, we are  
50 concerned that the issue of transfer students is not mentioned in the principles. We would like to  
51 see some recognition of the importance of transfer students and some explicit statement that, in  
52 effect, says that any revised general education curriculum will not create any barriers for  
53 students who wish to transfer into the university.  
54

1 ⇒ The University Senate Library Committee recommends that item 5 in the "Principles" be  
2 expanded to include an explicit focus on "Information Literacy" in addition to those two focus  
3 areas that this item now includes (i.e., written and quantitative skills). To this end we  
4 recommend: A. a new heading that might read: A revised general education curriculum will have  
5 an explicit focus on written communication, information literacy and quantitative reasoning skills  
6 B. a short paragraph be inserted between the two present paragraphs; this paragraph should  
7 explain the rationale for including a specific focus on information literacy in the new General  
8 Education Curriculum...". This new paragraph might read: An individual's ability to compete  
9 successfully, and to enjoy a rich life in a culture increasingly dependent on flow of information,  
10 will require competence in locating appropriate information and, even more importantly, having  
11 the essential skills to evaluate and to utilize that information profitably. It is therefore imperative  
12 that students learn to identify authoritative sources of reliable information, rather than relying on  
13 the random results of a generic, web-based search engine. To be taught effectively these skills  
14 must be embedded throughout the courses of the revised curriculum. We believe that the  
15 development of strategies to incorporate these skills across the curriculum will be best facilitated  
16 by synergistic partnerships between teaching and library faculty.  
17

18 ⇒ On behalf of the Internationalization Task Force and particularly its Curriculum committee, I am  
19 writing to share the curricular development guidelines we are working under as part of the  
20 university's participation in the American Council on Education's Internationalization Laboratory.  
21 We request that the questions below be considered with regard to the international component  
22 of the revised USP proposal. Here are the questions related to the core curriculum that ACE has  
23 suggested we address: • Has the institution articulated international learning outcomes for  
24 general education? If so, how does the curriculum enable students to achieve these outcomes?  
25 What is the evidence that they do? • Are courses with an international/global/ intercultural focus  
26 required? Or are they simply listed as one among many options? • Does the general education  
27 curriculum include opportunities or requirements for learning about non-Western cultures? •  
28 Does the institution have a language requirement? Why or why not? If yes, is it a proficiency  
29 requirement or a seat-time requirement? Source: Internationalizing the Campus: A User's Guide  
30 (2003), Madeleine F. Green and Christa Olson. (American Council on Education, Center for  
31 Institutional and International Initiatives, p. 60) We would be very happy to meet with those  
32 working on the proposal to discuss our suggestions and concerns. Such a meeting could be  
33 either with the Curriculum committee or with the entire task force. Please feel free to contact me  
34 to schedule such a meeting. I may be reached [removed].  
35

36 ⇒ The following comments are summarized following discussion among several of the College of  
37 Health Sciences Faculty Council members. These *comments do not necessarily represent the*  
38 *opinions of the total College faculty or of all Faculty Council members*. The document "Revised  
39 General Education Curriculum for the University of Kentucky" presents theoretically interesting  
40 discussion concerning ways of improving the ability of incoming undergraduate students to  
41 learn, both in the University and after graduation. It is unclear, however, what empirical data are  
42 available to drive the recommended changes. Is there reliable evidence that this type of  
43 structure is better than any other structures? Were other structures considered? What empirical  
44 data are they using to drive these changes? The proposal is thin in terms of details and  
45 specifics, other than the need for the requirement to be no more than 30 credit hours. The goals  
46 themselves are worthy of debate, but as presented may not be sufficiently critical to force such  
47 radical change in university curriculum. Lastly, given the budget realities these days, is it even  
48 feasible to implement such a strategy with increasingly limited state funding? Considering  
49 specific recommendations, it would be useful to consider adding an informatics requirement.  
50

51 ⇒ UK Libraries Faculty Council and Dean of Libraries. The Seven Principles of a Revised General  
52 Education Curriculum for the University of Kentucky sets the foundation for a successful USP  
53 revision. In particular, the First Principle serves as a guiding philosophy for the specific goals of  
54 the other Principles. The aspect most pertinent to the Libraries' participation is clearly  
55 addressed in the final sentence of that initial Principle. The notion that students need to be

1 “discriminating consumers of information” was brought home dramatically this past year when  
2 UK was misrepresented in regard to classes about the Holocaust: Dean Hoch’s comment that  
3 there is “a real danger ... living in a world of unrefereed information” (Lexington Herald-Leader  
4 [Jan. 20, 2008], p. A12) emphasizes the need to give students the tools not only to access but  
5 analyze information. To fulfill that goal within the USP, the Libraries should be instrumental in  
6 the development and implementation of the program. Information literacy is implicit in all of the  
7 goals of the USP and should be explicit in Principle Four since it is essential to the successful  
8 transition to college level academic success, an integral first step in becoming a successful  
9 student, scholar, and citizen. To emphasize this goal, the following phrase could be added to  
10 the final sentence of Principle Four: “All the classes within the USP should promote a graduated  
11 development of a discriminating approach to information access, evaluation, and application,  
12 making sure students are not just computer literate, but also information literate.”  
13

14 ⇒ There is general agreement in the Chemistry Department about the following two points: 1. It  
15 must be possible for first-year students to enroll in both math (MA) and chemistry (CHE)  
16 courses during both semesters. If this cannot be done then graduation of chemistry majors  
17 within four years is unlikely. 2. We are skeptical about courses that claim to teach students how  
18 scientists think without also including significant scientific content. While on the subject of  
19 general education I would like to comment on the role of general chemistry courses (and  
20 especially CHE 105) in the programs of university students. One of the most important lessons  
21 we teach in general chemistry is that there are right answers to the questions we pose and that  
22 we know what they are. Second, we teach the students that memorization is not enough; they  
23 must be able to apply the facts and equations to a variety of problems. Third, we teach the  
24 students that to be successful they must remember the material that was covered last week and  
25 last month as well as the material that was covered yesterday. Fourth, we teach them that there  
26 are limits to how much chemists as a group know, but that these limits are constantly being  
27 extended. Most of these lessons should be learned in high school, but the difficulties many  
28 students have in general chemistry suggest they are not. If the lessons about memorization and  
29 retention are not learned then all of the university education is compromised. This course does  
30 teach students how scientists think. We do not trust observations unless they are reproducible,  
31 we try to be logical, and when a theory has been shown to be wrong we look for a better  
32 explanation.  
33

34 ⇒ On behalf of the College of Nursing, I wanted to write to you to formally support the General  
35 Education Reform proposal. The College of Nursing previously responded to Phil Kraemer’s  
36 request to review the proposal with our curriculum committee. Described below were the  
37 concerns voiced by faculty at that time.  
38

39 Dr. Kraemer assured us that the nursing capstone course would count as the GER  
40 recommended capstone. The transfer and flexibility questions were also answered. In summary:  
41 Nursing is supportive of the proposal moving forward by the February deadline.  
42

43 (At the August 31, 2007 meeting of our Undergraduate Program Committee (undergrad nursing  
44 curriculum committee), I asked for feedback on the General Education Proposal. Here is the  
45 feedback from the Committee I shared with Dr. Kraemer, basically two concerns: (1)The major  
46 concern is the required 3-credit Capstone Course in the last semester since it would add a  
47 “capstone on a capstone.” Our nursing course NUR 886, Synthesis of Clinical Knowledge (6  
48 credits) IS the capstone course in nursing. Nursing students are immersed in clinical practice  
49 40-hours/week for 7 weeks (total of 222 clinical hours, very time and labor intensive) and do an  
50 oral presentation as a final project. Therefore, nursing would request a waiver of the GER  
51 required capstone course since NUR 886 captures the essence of the proposed capstone.  
52 Nursing currently requires a minimum of 120 total credits for graduation, but most nursing  
53 majors graduate with > 124 credits; GER projected total is 128 (error on GER form for nursing in  
54 spring year 1--Chem 108 is currently required and is 3 credits, not 4 credits). (2) Concern about  
55 how transfer students would be able to transfer courses (e.g., foundation of inquiry; global  
56 perspectives). Comment: We expect that there will be flexibility in terms of when the GE courses

1 can be taken (e.g., 2nd year Spring Semester has rigorous nursing requirements, NUR 863 and  
2 NUR 866, Pathopharm; adding writing requirement and American Culture to this semester –  
3 anticipated heavy writing and reading—would put additional burden on nursing students).  
4 Nursing would recommend that heavy reading and writing courses be completed prior to the  
5 2nd year spring semester in nursing.  
6

7 Thanks for the GER committee’s hard work on this. I co-facilitated with Ernie Yanarella an open  
8 forum on GERA in our College when the proposal was first introduced and participated in the  
9 Senate discussions. Nursing faculty is excited about the proposed curriculum and the positive  
10 impact it will have on our students.)  
11

12 ⇒ On behalf of the College of Arts & Sciences Educational Policy Committee (EPC), I would like to  
13 offer two general critical comments of the EPC to the Senate Council concerning the draft of the  
14 "Principles of General Education."  
15

16 First, we are concerned about the process of USP reform being undertaken by the Senate  
17 Council. It is unclear why "new" principles are being presented, when previous committees  
18 dealing with USP (e.g., USP External Review Committee, GERA, USP Reform Steering  
19 Committee) generated principles that seemed quite reasonable for revising USP. Moreover, the  
20 USP External Review Committee and GERA clearly were faculty-driven and included many  
21 opportunities for faculty input. Thus, the present document seems to simply rehash what other  
22 committees worked long and hard to accomplish.  
23

24 Second, the document was confusing. Although the document was supposed to be presenting  
25 principles followed by justifications for the principles, we were left wondering why certain  
26 justifications were not more potent principles than those that were numbered. As an example,  
27 within Principle 2 the justification asserts that "some general education goals should be  
28 incorporated into all four years of study." In addition, within Principle 4 the justification states  
29 that "a set of integrated learning experiences" and "a common learning experience" are needed  
30 for all first-year students. If the authors of this document would like a four-year distribution and  
31 an integrated first-year experience to be part of a new USP, why are these not presented as  
32 Principles? Moreover, if the motivation behind Principle 4 is to introduce UK students to the  
33 process of research, why is such an introduction not stated as a Principle?  
34

35 We also identified problems in particular points that were raised. For example, whether USP  
36 should be limited to 30 hours depends on which courses are being offered. Also, within  
37 Principle 2 the justification stated that the link between USP and the major has been a  
38 weakness, while under Principle 3 such a link was seen as desirable. These claims need to be  
39 reconciled. Thank you for your consideration of these comments.  
40

41 ⇒ Although the Department of Communication finds merit in many of the principles described in  
42 the "Principles of General Education" document, we cannot support it in its entirety because it  
43 does not include an oral communication component. To ignore the importance of oral  
44 communication skills in the university’s principles of general education document is in no way  
45 "going forward." In addition to a wealth of scholarly research about the importance of oral  
46 communication training in college and university general education programs, even a cursory  
47 Google search of "what employers want" illustrates this point. Communication skills--defined as  
48 the ability to listen, speak, and write effectively (in that order)--tops the list. We realize that  
49 providing oral communication training to all students across the university is a challenge, but we  
50 also realize that oral communication is a necessary life skill. Failing to acknowledge oral  
51 communication as a fundamental principle in general education because its implementation will  
52 pose a challenge, however, is simply wrong. In fact, the Department has been developing  
53 creative approaches to address the challenge. One possibility, for example, is to establish a  
54 Center for Communication Excellence and Innovation. This Center could serve as a resource for  
55 faculty and students in all colleges. Such a Center would not replace the existing public  
56 speaking and interpersonal communication courses that are currently required for a number of



1 majors across campus. Rather, the Center would address those students whose programs do  
2 not require bona fide oral communication skills courses. Students could make use of this Center  
3 in the same manner as they now use the UK Commsult program, only on a broader scale.  
4 Discipline specific courses could be designated as “oral communication intensive” courses  
5 similar to the way writing intensive courses are currently designated. The Center could provide  
6 training and consultation for instructors and students. Another possibility is to create an  
7 expanded version of UK 101 that includes an oral communication component. This version of  
8 UK 101 could be offered to students who are not required to complete a bona fide  
9 communication course as part of their major. As the state’s flagship university, the University of  
10 Kentucky should serve as a model of good practices for other institutions of higher education in  
11 its general education principles. The document as it reads now, without mention of the  
12 fundamental importance of oral communication skills, does not do so. Hence, the Department of  
13 Communication would endorse a revised version of the “Revised General Education Curriculum  
14 for the University of Kentucky” that includes oral communication.  
15

16 ⇒ President’s Commission on Diversity Committee on Undergraduate Student Affairs

17 Discussion centered on two related topics and documents: 1. Principles of a revised General  
18 Education Curriculum [derived from the USP Reform Steering Committee proposal]; and 2.  
19 Defining desired outcomes and key indicators of UK undergraduates’ experience, related to the  
20 vision of UK as a diverse and inclusive institutional culture worthy of a Top 20 public research  
21 university.  
22

23 The committee members in attendance agreed on their support of all seven key points in the  
24 “Principles” USP reform document. The USP reform themes dovetail with the PCD committee’s  
25 hopes for the UK undergraduate experience – that beyond mastering specific content, our  
26 students will develop skills and a process for active, life-long learning which will allow them to  
27 become culturally proficient so that they are successful in a global environment. We  
28 appreciated the statement, “Life does not always present itself as a problem to be solved; it  
29 often appears as a dilemma that must be resolved.”  
30

31 What follows is a summary of the committee’s discussion – ideas and opinions shared with the  
32 USP reform committee in hopes that we can actively support the curricular changes that we see  
33 as essential to changing the experience of our undergraduate students. Discussion items are  
34 bulleted, with some direct quotations indicated.  
35

- 36 - Diversity must be immersed, infused in and throughout the entire curriculum, getting away  
37 from the idea of ‘a’ class that leads to multicultural proficiency. The inclusion of cultural content  
38 cannot be a separate ‘item.’  
39
- 40 - We want to move our students from cultural awareness to competence.  
41
- 42 - It will be exciting to involve the new VPID in faculty discussions for incremental change.  
43
- 44 - Students want/tend to ‘compartmentalize’ – to isolate information from one class or one theme,  
45 rather than exploring and evaluation in combination, and integrating knowledge and/or  
46 experience.  
47
- 48 - Our challenge is to create adequate discomfort in students – which we [faculty/staff/mentors]  
49 then help them resolve, and then grow.  
50
- 51 - What we’re talking about now is re-conceptualizing the curriculum – a radical paradigm shift –  
52 not just adding content.  
53
- 54 - Faculty development must be on-going, since the instructor has such a key role – mediating to  
55 challenge students to examine and perhaps change beliefs.  
56

- 1 - We have to get away from 'us' and the 'rest of them.'
- 2
- 3 - White students do not know their own cultural background – and that has to happen for them  
4 to become stake-holders. If white students do not understand their own historical struggles,  
5 how can they understand others' struggles?
- 6
- 7 - We must shift away from an Eurocentric approach from the outside – people have to look  
8 inside first then join with others outside themselves. How can you discuss what you do not  
9 know or think through?
- 10
- 11 - For example, the controversial discussions over evolution vs. creationism – as educators, we  
12 want students to grapple with beliefs, consider the other side, broaden themselves to the  
13 critique, consider the evidence, have a thought process to decide and discuss what they believe  
14 [ not 'just because' ]
- 15
- 16 - How do we offer different/varied cultural perspectives within the same classroom? If an  
17 instructor is firmly rooted in position A, then how are positions B, C, D, etc represented for  
18 consideration and evaluation?
- 19
- 20 - What about the idea of 'master teachers'? We all know that there are faculty whom students  
21 seek out and are drawn to – b/c those instructors are passionate, interesting, engaging [and  
22 who also may know lots of content and/or be great researchers, but the point is that the  
23 students are eager to learn from them] – and we can identify those teachers, bring them  
24 together for shared development experiences and utilize them to get students excited about  
25 learning right from the first semester!
- 26
- 27 - The idea of these 'master teachers' might be hard to translate to large lecture classes with  
28 limited interaction – what about targeting cohort classes or seminars to which each student  
29 would be exposed?
- 30
- 31 - One of the keys to this engagement and opening up the classroom to perhaps widely-  
32 divergent viewpoints, is whether the instructor can manage conflict in the classroom. Can s/he  
33 allow/encourage there to be some respectful disagreement, discomfort, and not consistently  
34 have students so upset/distressed that they become reluctant to come to class or to speak out?  
35 If we are going to have honest discussion, there will be some discomfort – and resulting growth  
36 – but there is real skill demanded for those who moderate those discussions [thus the need for  
37 on-going faculty development].
- 38
- 39 - This is revolutionary change. Yes. And think how our students 10 years from now will be  
40 differently ready for the world they live in.
- 41
- 42 - Is there concern from the faculty? [We shared what we had heard regarding the number of  
43 credit hours for USP and not being able to double-dip pre-major requirements; the sweeping  
44 change in focus, from content in the past to skills/process in the future; and the issue of needed  
45 reallocation of resources as different programs/units may be responsible for a new curricular  
46 emphasis.]
- 47
- 48 - There would need to be time/DOE allowance to collaborate with other faculty for increased  
49 teaching across the curriculum.
- 50
- 51 - It will take "real resources" for radical change – so that everyone is involved and accountable –  
52 so that commitments are made and performance is evaluated – whether via T&P process, PE's,  
53 DOE adjustments, or student grades. [The grade idea was included relative to students having  
54 experiential requirements for participation/attendance that would be separate from grades on  
55 exams, etc.]

1  
2 - Mentors – ‘essential that we build community and this is one way that happens.’ Upper-division  
3 students could each be assigned 5 first-year students with whom they meet at least every two  
4 weeks for the first semester. Many universities have such programs, and UK has peer mentors  
5 within particular programs/units. The key is to build the expectation that new students have a  
6 committed mentor, and more experienced students value the ‘giving back’ to those who are new  
7 and need support, encouragement, or just a familiar face. Similar faculty or staff mentoring  
8 would be highly desirable – but there would have to be some DOE/time allowance for these  
9 community-developing efforts.

10  
11 - Even if USP didn’t change, faculty could benefit from development opportunities. As a  
12 PhD/graduate student, many/most individuals learn to teach by observing another faculty  
13 person who may or may not be an effective teacher [though brilliant in research, writing or other  
14 pursuits]. Many disciplines offer future faculty only minimal training in pedagogy. Teaching skills  
15 will be even more important as USP experiences seek to develop skill/process rather than  
16 primarily conveying content to students.

17  
18 - Question of the ‘rule of thirds’ – one-third eagerly ‘singing in the choir,’ one-third ‘willing to see  
19 the music and likely learn to sing,’ and one-third not interested in the choir – so what motivates  
20 that last third to join the effort on diversity and inclusion – and/or on redefining the way  
21 undergraduate education is defined and delivered? Discussion of intrinsic value/rewards, merit  
22 raises [in better budget times], incentives such as additional travel/conference funding. One  
23 example was given of a department in which employees were expected to complete a particular  
24 training, and extra funding was held until the training requirement was met.

25  
26 - Lots of positive energy about the summer reading program! Chester Grundy is on that  
27 committee and was able to share info on that process. Idea of faculty/staff not teaching USP  
28 courses also reading the ‘summer book’ and including it in curricular and extra-curricular events.  
29 Emphasis that the outcome of the summer book program ‘needs to be real – not just quizzes  
30 about the storyline or protagonist, but shared experiences in which students and instructors  
31 struggle to apply and integrate what might be learned from the book.’

32  
33 - Idea to ‘bring excited students into the mentoring/leader role’ – so that a junior might say  
34 informally to a first-year student, ‘wow, the book we read was so important to me in ‘x’ ways and  
35 I had these types of discussions/disagreements about it! Let’s talk about the book for your  
36 class!’

37  
38 - Message that needs to be conveyed to high school seniors – do NOT slack off academically  
39 that last year [after the good grades were earned in impressive courses that resulted in an early  
40 college admission, etc.]. The senior year is not a vacation time to forget how to be a student!  
41 Rather it can be a time to sharpen critical thinking, reading and writing skills, get a head-start on  
42 understanding how statistics are used every day, etc.

43  
44 - We [UK] may need an educational/informational/outreach program to explain to concerned  
45 parents and others WHY the USP is changing. “There’s likely to be a needed process of ‘selling’  
46 the development of intellectual skills/process over memorizing facts. We may have to sell the  
47 changes based on skills for success in the world that is interconnected and full of differences,  
48 and hope that people move toward learning for the sake of learning and growing.” “Where I’m  
49 from, Kentuckians sometimes have an anti-intellectual mindset – to not get above one’s raising  
50 – and students may focus on ‘being a good Wildcat’ whereas parents want Johnny to get Job  
51 X.” “We may have to raise the bar for those who don’t know how high the bar can be set.”

52  
53 - Some programs [like STEM] have done a great job in explaining/selling the importance of  
54 critical thinking/learning/problem-solving/communication skills for a global economy – starting  
55 with elementary school students. Waiting until high school is too late for students and parents  
56 to cultivate expectations that support students becoming active learners and world citizens.

1  
2 - It will be important to explain to the larger community how it/they fit in the picture – and that  
3 they will get left out if not on board [because businesses will go to other countries or states, or a  
4 skilled professional may return home to Central Kentucky to find that many customers speak  
5 only Spanish]!

6  
7 - The new VPID may be helpful in cultivating this community involvement, networking, and info-  
8 sharing.

9  
10 - It's important to have community representation on UK committees [including those involved  
11 with curriculum changes] to get a different view [of global business/financial markets, for  
12 example] and also to get buy-in from community firms/persons who may hire UK graduates  
13 and/or partner with UK.

14  
15 - While there may be 'best practices' among the Top 20 and our benchmarks, it is important not  
16 to ignore regional institutions [like WKU] and privates [like Berea] which offer rich experiences in  
17 the dignity of work, broader world views, and shared experiences like convocation.

18  
19 As is evident, our discussion was rich, open, engaged, represented a variety of viewpoints –  
20 and crossed back and forth between USP and the experiences that we hope our UK  
21 undergraduates will have, to affect their thinking, behavior, communication, values, beliefs – and  
22 which can be measured/evaluated and that information used for future improvements in the UK  
23 experience. We appreciate all the thought that already had gone into the proposed reforms to  
24 general education at UK.

25  
26  
27 ***Comments on the wrong document:***  
28

29 ⇒ Perhaps I misunderstand, but from what I've read, what this proposal does is make it so that  
30 each student will have 10 weeks of Social Science, 10 weeks of humanities and 10 weeks of  
31 hard science. None of these courses constitute a broad survey of these areas, but rather two  
32 five week "research based" modules with 75-100 students in the class (but it's not supposed to  
33 be lecture format either). This implies LESS general education and more major specific  
34 education. We will now have scientists whose total collegiate experience with humanities and  
35 social science is less than 1 semester course each. We will have business executives whose  
36 total collegiate science experience is less than 1 semester course. If you think Dilbert is funny  
37 now, wait until the students of this program become Pointy Haired Bosses and know NOTHING  
38 about science. I'm sure supporters will try to say that "much of the facts have been covered in  
39 High School," but as anyone who has taught freshmen will tell you: it has not been covered.  
40 Kentucky secondary education is not sufficient for the broad knowledge base needed to operate  
41 effectively in today's society. This is the death knoll of liberal arts education at UK. We will  
42 become nothing but a glorified technical college generating people who are trained rather than  
43 educated.

44  
45 ⇒ Despite the explicit principle to "focus on ...quantitative reasoning skills, " I am extremely  
46 concerned that completion of the proposed curriculum will still leave graduates without basic  
47 scientific abilities. These skills are essential to evaluate the evidence citizens require to reach  
48 reliable conclusions about a variety of topics, including global climate and environment, energy  
49 use and availability, technical weapons capabilities of allies and foes, and threats of pandemics.  
50 Natural science represents the best opportunity to apply quantitative reasoning skills, yet  
51 reduced to two five-week modules, students' practice would be extremely limited. A single  
52 module may introduce students to the qualitative approaches of a field, but without sufficient  
53 time to learn factual content, the basic knowledge that is the essential foundation for robust  
54 quantitative analysis cannot be acquired.  
55

- 1 ⇒ Small classes are good, but large ones are efficient. Replacing AST 191 (200 + students and  
2 one professor) by a bunch of modules (70 students each) is going to cost three times as much  
3 in manpower, isn't it? I'd think we need to be confident that the modules were three times as  
4 good as the large lecture they replace, and that students were willing and able to pay the higher  
5 price, before proceeding much farther.  
6
- 7 ⇒ I am an instructor of large enrollment general education science courses (AST 191/192). From  
8 this perspective (and from a more general perspective), I have several concerns about the draft  
9 General Education Proposal. I hope that comments about this document are still welcome. (a)  
10 The draft plan (p. 3) complains about lack of coherence in the existing general education  
11 program. How will the replacement of semester-long general education courses with unrelated  
12 5-week "modules" improve the coherence of general education? (b) The draft plan (p. 5)  
13 reduces the university-wide general education science requirement from 6 to 2 credit hours (i. e.  
14 two "Foundations of Inquiry" modules). How will a factor of three reduction in science  
15 requirements help science literacy? (c) The draft plan offers no explanation of how the new  
16 curriculum will be evaluated. Nor does it offer any example of how such a system has operated  
17 at another college or university. How will we ever know if the new general education plan is  
18 better than the existing one? What sense does it make to offer a radically different general  
19 education curriculum and provide no plan and no benchmarks to evaluate its success?  
20
- 21 ⇒ The modules may present a problem for some students, such as athletes and fine arts majors,  
22 who are required to participate in off-campus activities. Given the very limited number of  
23 classes, if students miss 3 or 4 classes, which is very possible, they will have missed a  
24 significant portion of the course. Further, a faculty member could evoke the 1/5 rule means and  
25 require the student to drop the course because of these officially excused absences. These may  
26 present real difficulties to students.