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Committee Minutes Committee

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Undergraduate Curriculum and Academic Policy Committee Minutes, November 13, 2007

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Undergraduate Curriculum and Academic Policy Committee

Minutes of November 13, 2007 Meeting

Present: Candace Cherrington (and Carol Holdcraft substituting for part of the meeting), Daniel Fague, Jeanne Fraker, Roger Fulk, Nathan Klingbeil, Joe Law, Richard Mercer, Bobbe Pohlman, Tom Sav, Cathy Sayer, David Seitz, Karen Wilhoit. Guests: Marian Hogue, Registrar.

Approved Minutes of October 15, 2007.

UCAPC Subcommittee Reports

Writing Across the Curriculum Committee (WAC): Joe Law, WAC Chair -- being that the committee did not meet this month, no report.

University General Education Committee (UGEC): Jean Edwards, UGEC Chair, reported via email that minutes of the committee meeting of September were approved as follows

[UGEC Minutes, September 13, 2007](#)

General Education Assessment Reports received by UGEC this year are as follows

[Area I Math](#)

[Area I Writing](#)

[Area V Science](#)

[Area VI COLA Fall 06](#)

[Area VI COLA Winter 07](#)

[EGR 190](#)

Area VI CONH (only available as a paper copy)

Reports approved by UGEC are submitted to Bill Rickert, Associate Provost, per the WSU requirements. All reports are on file as they pertain to WSU requirements and can be accessed online or by contacting Bill Rickert at 775-3036 or bill.rickert@wright.edu

Undergraduate Academic Program Review Committee (UAPRC) -- Susan Carrafiello, Chair (Tom Sav reporting -- No Report being that program review submissions and reviews will not begin until after January 2007).

Course Inventory and Modification Requests

CECS

Modifications: EGR 199 (modification of addition to Lab was withdrawn upon determination that it was an unnecessary modification)

CEHS

Approved Modifications: HPR 445

COLA

Approved Inventories: URS 300, URS 301

Approved Modifications: MUE 270, MUE 470, PHL 411

CONH

Approved Modifications: NUR 217, NUR 218, NUR 306

Program Changes

CEHS

Approved

Health Education & Physical Education Licensure Program

COLA

Approved

B.A. Social Work

CONH

Approved

B.S. Nursing

Adjourned: Next meeting January and Winter Quarter Meetings and other Schedules as follows:

UCAPC Meeting	UCAPC Submission Deadline (No Exceptions: receipt after forwards to the next meeting)	Faculty Senate Meeting New Business	Faculty Senate Meeting Old Business
Current Meeting November 13		January 7	February 4
January 14	January 3, 12:00 Noon	February 4	March 3
February 11	February 1, 12:00 Noon	March 3	April 7
March 10	February 29, 12:00 Noon	April 7	May 5
April TBA	TBA	May 5	June 2
May TBA	TBA	June 2	Fall 2008

UCAPC HOME

**UGEC Meeting Notes
September 13, 2007**

Members present: Jean Edwards, Carol Loranger, Kim Stewart, Rich Bullock, Dave Reynolds, Carole Endres, Jeanne, Fraker, Susan Carrafiello, Mindy Diesslin, and Joe Law.

The minutes of the May 30, 2007, were approved.

Jean briefly explained the UGEC charge. Susan mentioned the UGCE foundation document found at <http://wright.edu/ucapc/ugec/ugecres.pdf>.

Jean distributed copies of the GE New Faculty Handbook, tool kit accessories and "*Why Do I Have to Take This Course*" booklet. Jean provided copies of these documents at the presentation she made at the new faculty orientation session. Jean also provided copies of the Purposeful Pathways to committee members who had not yet received their copy.

Jean will be conducting GE Area meetings with faculty members who teach GE courses. Jean reported the CUPA survey of GE focus groups is nearly complete. The advisors in UC are the last group to be surveyed. A final report should be available by our next meeting.

The Area VI Assessment Report for the College of Nursing and Health was discussed. After a discussion of questions and what they are designed to measure, a motion was made to accept the report. Motion passed.

The Assessment Report for Area III was discussed. The issue of the questions and what they measure were raised. This report was tabled until our next meeting. The committee recommended undertaking a project to link the assessment plan, course syllabus and master syllabus together. It was recommended the committee start with one area. Area III was selected due to the large class sizes, different colleges involved and diverse courses. Jean will request copies of the individual syllabi for selected courses of economics and psychology.

Jean reported she will be sending another request to the Area Assessment Coordinators for the assessment reports from last year. It was recommended a copy of this request be sent to the Deans, since these reports are so late.

Jean addressed the letter from Jim Sayer, sent as Faculty President requesting the committee include in our goal statement for GE courses a service learning/civic engagement component. The committee wants the issues raised regarding service learning/civic engagement resolved before this is added.

Meeting adjourned.

GE Area I: Mathematics and Statistics Assessment Report (F '06, W '07 & S '07)

June 3, 2007

The overall mean of the students' quarter grades was 75.4% and the median was 76.3%. Student results from the common final exam marker questions were as follows:

For the finance problem: mean 72.7%; median 70%

For the statistics problem: mean 71.3%; median of 72%

These results didn't vary significantly from previous years' data., but still didn't meet our goal of student achievement of 75% or above on these questions. We noted, again, that student motivation seemed to be part of the problem since many students only want their "D" or better and be done with it. When the final rolls around, many skip the more challenging problems because they figure they can get the points they need elsewhere with less effort. Previous suggestions to help improve student learning of collecting more homework, giving more quizzes and doing more group work were implemented in some of the sections with mostly positive results.

To help build on these suggestions, we will meet with past and present MTH145 instructors during the first week of F '07 quarter to discuss best practices and to solicit and discuss suggestions to help improve student performance. Some ideas:

- give a pre-assessment test during the first week of the quarter to be able to better judge progress at the end of the quarter and see where weaknesses exist so we're not wasting time covering what they already know - a continual problem due to all the different math ability levels with our students

- set up special instruction (SI) time - although there is difficulty here due to the non-standard syllabi between the sections

- use more challenging in-class problems (and create a file of these types of problems) to increase exposure to problem-solving and leave more of the rote review to time outside of class

- make the marker questions carry more weight on the final (to increase the probability of student response)

Looking at the marker questions' means and medians, it doesn't look like we've gained any ground in student understanding since our previous assessment. We need to be able to encourage students to not be afraid of a problem and realize that just because they hadn't been able to do these types of critical-thinking problems before, the only way they'll get any better is through practice. We'll look at different ways to have students practice and to see problem-solving modeled. Previous student failures seem to hinder progress more than anything. We want to have success breed success.

2007 GENERAL EDUCATION ASSESSMENT of AREA 1 WRITING

May 30, 2007

General Education Assessment Plan: Area 1 Writing

Lead Faculty: Richard Bullock, Director of Writing Programs, English

1. The General Education Learning Outcomes for Area One.

- ? use writing processes to explore, think, and learn, and to write appropriately for various tasks and audience
- ? develop logical and fair arguments, and observe appropriate writing conventions
- ? show ability to identify main ideas and evaluate, analyze and synthesize primary and secondary sources

2. Based on these outcomes, the specific performance criteria in this area.

At the end of ENG 102, students will:

- ? Generate essay topics, research, draft, revise, edit and proofread essays.
- ? Use the accepted conventions for specific genres, tasks, and audiences.
- ? Write arguments using sufficient, appropriate information that offers a balanced perspective on the topic.
- ? Summarize, analyze, and evaluate texts.

The department has identified more specific outcomes for ENG 101 and 102. These are appended.

3. Assessment measures to be used to evaluate student achievement in Area 1.

Direct measures of student achievement

40-50 ENG 102 students' portfolios will be selected randomly and assessed by the Writing Programs Committee for evidence of success in meeting GE learning outcomes. See attached rubric for a description of the outcomes as applied to ENG 101 and 102. The department's desired goal is for all students to meet the outcomes; the assessment will determine areas of relative success and weaknesses in students' ability to meet the outcomes and thus determine program adjustments and faculty development goals to address the issues raised.

Indirect Measures of student achievement

Students who completed ENG 101 and 102 will be surveyed to find out whether they believe that the courses prepared them for writing in their subsequent course work. These surveys may include students who have graduated from the university, students who have entered a major, students who are enrolled in certain Writing Intensive courses, or others. In the years when surveys are chosen as the primary assessment tool, the Writing Programs Committee will choose a group to survey and develop appropriate questions. The answers to those questions will determine the actions to follow.

The General Education Student Learning Outcomes Evaluation Form will be distributed on a regular basis to selected Area 1 courses as determined by UGEC. The results will be tabulated and submitted to the appropriate dean's office. The results of the survey will be provided to the appropriate college committees, chairs, and instructors.

Qualitative evaluations of student achievement

Each quarter, faculty teaching ENG 102 will read two portfolios randomly chosen from previous quarters' ENG 102 students and meet to discuss the portfolios' merits and problems and the extent to which each meets the program's learning outcomes. Faculty teaching ENG 101 will do the same, with two previous 101 students' portfolios. The discussion that takes place in these meetings will provide the basis for a report outlining faculty perceptions of the success of the program in meeting the outcomes and their perceptions of potential areas of need, along with a plan for addressing those areas.

Quantitative evaluations of student achievement

Each ENG 102 instructor will be paired with another ENG 102 instructor. The instructors will be given lists of 5 randomly-chosen students' names from their section. Those 5 students' portfolios will be assessed by their instructor-partner and then by the instructor of their section. Afterward, each instructor will complete a questionnaire asking them to rate the degree to which the portfolios meet ENG 102 outcomes (see attached rubric) on a 1-5 scale. The results of that assessment (of 20% of the students completing ENG 102— 5 students from each section of 25) will be compiled and analyzed by the Writing Programs Committee, which will use the results to develop an action plan.

The General Education Student Learning Outcomes Evaluation Form will also provide quantitative data for assessment purposes.

4. Assessment Schedule to be used

Each year: Qualitative and Quantitative measures, focusing on all 3 outcomes and criteria
Every 4 years, alternating every two: Direct and Indirect measures, again focusing on all 3.
(This has turned out to be a fiction, as we have found that our assessments must be determined by our previous assessment-driven work, not an arbitrary schedule.)

5. Collection, storage, retrieval, evaluation of data

The department's Writing Programs Committee is responsible for ENG 101 and 102. Specifically, the English Department's Bylaws describe the makeup and functions of the committee as follows:

i. Writing Programs Committee

Members:

- ? The Director of Writing Programs (chair)
- ? The Director of Graduate Studies (ex-officio voting member)
- ? The Director of the Writing Center (ex-officio voting member)

- ? Four faculty elected by the department's voting membership, all of whom should be active in one or more of the department writing programs
- ? A teaching assistant elected by the teaching assistants in the graduate program

Duties:

- ? Develop policy, program and course recommendations related to writing courses (except those in creative writing)
- ? Oversee writing program curricula
- ? Send undergraduate and general-education related curricular recommendations to the Undergraduate Committee
- ? Send recommendations involving graduate courses to the Graduate Committee
- ? Periodically evaluate the performance of Lecturers in composition, and send recommendations regarding the renewal of Lecturers' contracts to the Advisory Committee
- ? Review all applications for part-time writing positions

The Director of Writing Programs will collect the data from the Quantitative and Qualitative measures until the Writing Programs Committee reviews and evaluates it and recommends actions based on it.

A member of the Writing Programs Committee, working with the Director of Writing Programs, will collect and store the data from the Direct and Indirect measures until the Writing Programs Committee reviews and evaluates it and recommends actions based on it.

**ENG 101 and 102 General Education Program Assessment,
May, 2007**

History: In 2005, the Writing Programs Committee spent the fall quarter conducting its first required General Education program assessment. We looked at the program through three different lenses, one more than required by our GE Assessment Plan:

- ? **Quantitative Measure:** A tallying of the scores from the portfolios traded and evaluated by ENG 102 instructors during 2004 and 2005. This totaled over 600 portfolios that were evaluated on 17 different criteria.
- ? **Qualitative Measure:** A summary of the scores given by 5 ENG 102 norming session participants, using the same 17-criteria rubric.
- ? **Direct Measure:** The scores given to 40 randomly-chosen ENG 102 portfolios, each of which was read by 2 members of the committee and scored using the GE criteria.

The 3 assessments showed a consistent finding: across the board, the writing faculty found that the writing students produced at the end of ENG 102 was: Blah. Mediocre. Passable, but barely.

Discussion of the assessments led to the framing of a key question for the committee and the program's faculty:

- ? How can we keep what we like about ENG 101 and 102 (its welcoming, nurturing stance toward students and emphasis on helping them succeed in the courses) and establish more rigor and produce better results?

To answer that question, the committee agreed to

- ? Examine the current 101/102 program, and
- ? Investigate possible alternatives to the current program.

Through the 2005-2006 and 2006-2007 school years, the department has been pursuing this question. As results of focus groups (2006) and research into placement efficacy and review of the program (2006 and 2007), the department's Writing Programs Committee has done the following:

Writers Studio: To provide additional help for students in ENG 101, a new course was implemented for fall, Writers Studio. A one-hour, pass/unsatisfactory course, Writers Studio offers small-group tutoring and instruction to students whose instructors determine, through a diagnostic reading and writing sample administered during the first week of the quarter, that they need extra help to succeed. The Senior Vice President for Curriculum and Instruction graciously provides funding for the course, which is taught by adjunct faculty from both the English Department and the DEV program.

In fall quarter, 2006, the course was voluntary, with placement determined through a personal essay. Almost no students volunteered, and the placement instrument was declared to be too inexact to be useful.

For winter quarter 2007, the instrument was revised to include the reading of an academic essay and the writing of a summary of it and an essay based on it. Instructors found this instrument to be very accurate and useful. However, since the program was still voluntary, few students registered for it.

In spring, 2007, the same instrument was used, and the course was made mandatory; more than 60 students registered (out of 100+ referred). We think we have the parts in place now, from the student end.

For fall 2007, we will use the same procedure, but have developed forms to facilitate ongoing communication among the Writers Studio instructors and ENG 101 instructors, something that was spotty this year.

The writing programs committee is also exploring the possibility of having Writers Studio be offered through the University Writing Center, where the course could lend increased academic legitimacy to the Center and also be expanded to include Writing Intensive courses in General Education and in the majors.

Placement: A new placement instrument, Online Directed Self Placement, was implemented for the students entering the university in fall, 2006. During the summer, a quick assessment of enrollments determined that the cut score was too low, so almost no students were placed into DEV. The scores were adjusted in August, and some students were re-placed appropriately, but several sections of DEV writing had to be cancelled due to poor enrollment. Their instructors were offered Writers Studio sections, as Writers Studio was developed to help students who would have otherwise taken DEV courses.

Using Fall quarter, 2006 data, we compared the grades of students finishing ENG 101 with their ACT verbal scores and their Online Directed Self Placement (ODSP) scores. The result: ACT scores were little better than chance in predicting students' success in ENG 101. ODSP scores fared a bit better: students placed into ENG 101 who completed ENG 101 had an 85% chance of getting a C or better in the course, while students who placed into a DEV course but ignored their placement and took ENG 101 had only a 66% chance of earning a C or better. Still, the committee felt that was too inaccurate and began looking at alternatives.

In December, 2006, however, the Ohio Legislature passed the Ohio Core, which dramatically altered the placement landscape with two new rules: one, it mandated a single, uniform placement procedure for all state postsecondary institutions; two, it mandated the end of state subsidies for developmental courses at almost all state institutions. So control over our placement procedure is being lost, while the stakes for students and institutions have gone up considerably. (The Board of Regents has proposed using the ACT as the instrument; our analysis suggests that it's a poor tool, and ACT itself admits that its ability to predict success is about 75%--too low for a tool that could keep students from matriculating at four-year universities, or place them into ENG 101 wrongly.)

We responded by closely examining our first-week diagnostic (see above), comparing it with a very similar procedure used by the University of Cincinnati. We developed an online diagnostic procedure like UC's, with the goal of using it for two purposes: to offer students placing into DEV courses a way to demonstrate that they have the skills to succeed in ENG 101 (and so avoid having to take DEV courses at Clark State or another 2-year school or branch); and to give ENG 101 instructors access to students' diagnostics before the quarter begins, so their first week is not dominated by the diagnostic.

Ultimately, we agreed to table this proposed structure until the uniform placement procedure we must follow is announced.

First-Year Writing: Currently, GE Area 1 requires students to complete ENG 101 and 102. The Writing Programs Committee is recommending to the department that we do the following to revise and expand the program:

- ? Rename ENG 102 as ENG 103.
- ? Create a new course, to be given the ENG 102 number, that students receiving a D or F in ENG 101 be placed into. They will receive instruction both in areas of writing in which they showed weaknesses in ENG 101 and in areas to prepare them for ENG 103. (Students receiving an X in 101 will have to repeat it, as they do now.)
- ? Create another new course that combines ENG 101 and 102, for students whose writing abilities are strong enough that one course will be enough.
- ? Institutionalize Writers Studio as a corequisite for ENG 101 for some students.

General Education Area V (Natural Sciences)
Summary of Online Questionnaire Results, 2006-2007

Objective 1: Understand the basis of scientific inquiry. (*Distinguish theory from hypothesis, recognize are many valid approaches to scientific inquiry, that science requires skepticism, the nature of an experimental control, interpretation of a graph*). Questions 4, 5, 6, 12, 13.

Objective 2: Understand the theoretical, practical, creative and cultural dimensions of scientific inquiry. (*Science is a creative activity, without rigid format, science and religion are not in opposition, but there are certain types of questions that science cannot address*). Questions 8, 10, 14.

Objective 3: Understand the importance of model building for understanding the natural world. (*A scientific model is a visualization of a phenomenon that fits all available information; useful for generating and testing hypotheses*). Questions 2, 7.

Objective 4: Understand the dynamic interaction between society and the scientific enterprise. (*Science is a legitimate society enterprise, not separate, distant, or antagonistic.*). Question 9.

Objective 5: Recognize the appropriate ethical uses of knowledge in the natural sciences. (*Like all knowledge, science is ethically neutral.*) Questions 3, 11.

1. Please check below ALL the science courses you have taken at Wright State to satisfy the General Education requirement, including the one in which you are currently enrolled.

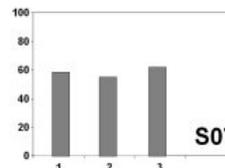
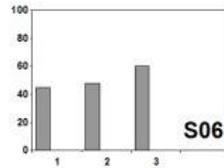
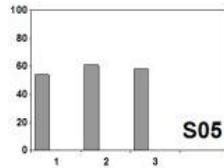
BIO 105: Biology of Food
BIO 106: Biological Diversity
BIO 107: Biology of Disease
CHM 105: Chemistry of our World: Living Things
CHM 106: Chemistry of our World: Materials
CHM 107: Chemistry of our World: Energy and the Environment
GL 105: The Planet Earth
GL 106: Evolving Earth
GL 107: The Earth and Human Affairs
PHY 105: Sounds and Colors
PHY 106: Planetary Astronomy
PHY 107: Stars, Galaxies, and the Cosmos

(Responses were used to establish only the number of courses taken).

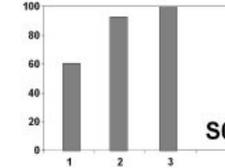
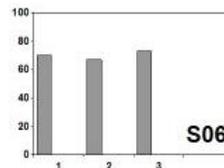
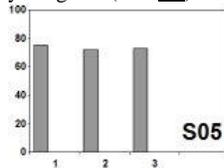
These and following graphs show the percent of answers considered **correct** (answer underlined in the text). These are listed by the number of GE science courses taken by respondent. S05, S06, S07 = Spring 2005, Spring 2006, Spring 2007.

2. Which of these would be an example of scientific modeling?

- A) Visualizing an atom as a miniature solar system.
- B) Proposing that contagious diseases are caused by tiny viruses and bacteria.
- C) Interpreting fossils as representations of ancient living things.

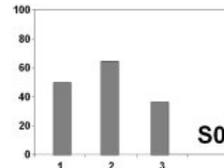
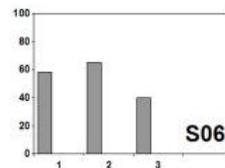
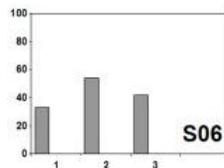
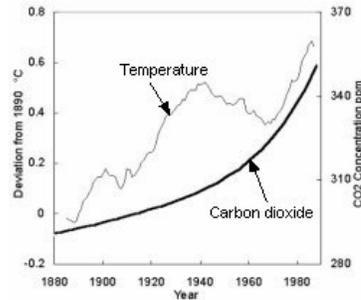


3. “Genetic engineering is just one more example of the negative impacts of science on society.” Do you agree? (Yes/No)

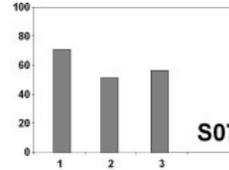
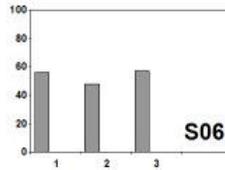
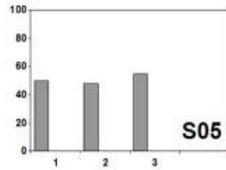


4. The figure on the left shows an eleven-year moving average of global surface temperature plotted as deviation from 1890 (left axis and light line), as compared with atmospheric CO2 (right axis and dark line). What can you conclude from these data?

- A) The global temperature has been rising steadily since 1880.
- B) Since 1880 global temperatures have been more erratic than levels of CO₂.
- C) There is a direct link between CO2 levels and global temperature.
- D) Measurements of global temperature are more accurate than those for atmospheric CO2.



5. "An experiment can never prove a hypothesis: it can only discredit the hypothesis or add validity to it." Do you agree? (Yes/No)



6. For a science fair project a student tests the toxicity of dishwashing detergent on guppies. There were 5 fish in each concentration, and the solutions were made using aged tap water. Here are the results of a 12-hour test. The student concludes that the detergent is toxic to guppies.

Detergent

Concentration

1:10 dilution

1:20 dilution

1:50 dilution

Result

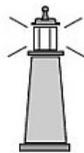
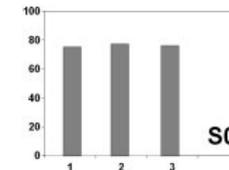
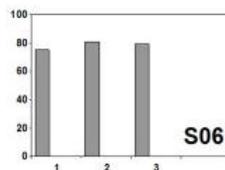
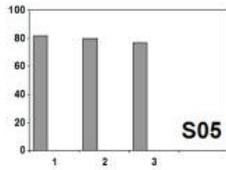
All fish died

All fish died

All fish died

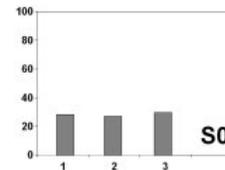
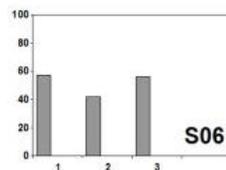
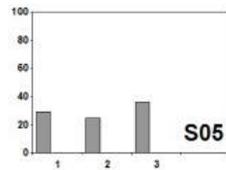
What step is missing from this experiment?

- A) Run a test on the aged tap water alone.
- B) Run a test with full-strength detergent.
- C) Shorten the tests to 6 hours instead of 12.
- D) Repeat the tests with a different kind of fish.

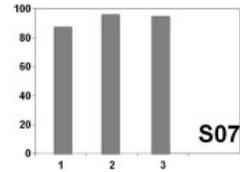
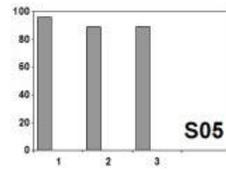
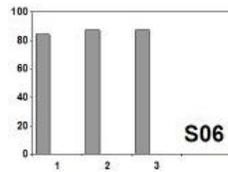


7. Pulsars are objects in space that seem to give off rhythmic bursts of electromagnetic energy. Some astronomers compare a pulsar to a lighthouse with a rotating beacon. Even though the beacon operates continuously, it appears to flash on and off because of the rotation. Maybe a pulsar emits energy in only one direction - like a lighthouse - and it is actually spinning to produce the rhythmic effect. Which of these would be an appropriate name for this idea?

- A) Lighthouse model.
- B) Lighthouse theory.
- C) Lighthouse law.



8. Which one of these questions cannot be addressed by scientific means?
- A. How much plutonium is needed to make a hydrogen bomb?
- B. What is an efficient method for producing radioactive tritium?
- C. Is it justified to kill innocent people if that action might prevent even more killings?
- D. How does the smallpox virus avoid human defense mechanisms?



9. Scientific theories sometimes challenge certain beliefs held strongly by society. Describe an example of this conflict, either current or historical. (Data are in percent. Individual responses on attached sheets).

Spring 2005

No. of courses:	1	2	3
Evolution	46	50	44
Other religious	20	10	0
Stem cell	7	5	10
Big bang	0	5	25
Other	27	30	11
Sample size	15	20	52

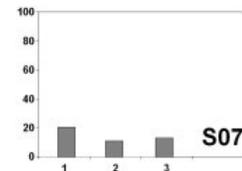
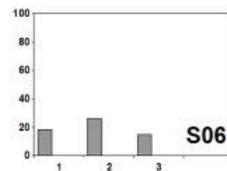
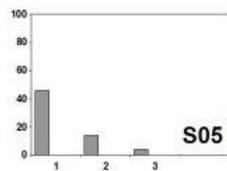
Spring 2006

No. of courses:	1	2	3
Evolution	41	62	64
Other religious	13	4	8
Stem cell	13	0	3
Big bang	3	15	0
Other	31	19	25
Sample size	32	26	36

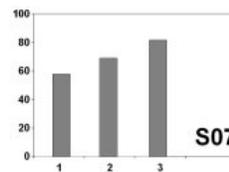
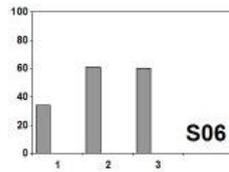
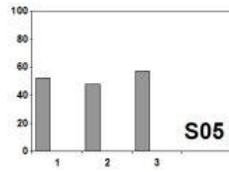
Spring 2007

No. of courses:	1	2	3
Evolution	44	43	58
Other religious	15	7	6
Stem cell	9	14	15
Big bang	9	14	0
Other	22	21	21
Sample size			

10. "Scientific method involves a series of logical steps performed in a rigidly prescribed format." Do you agree? (Yes/No)



11. "In my opinion, scientists are just as sensitive to ethical values as is the rest of society." Do you agree? (Yes/No)



12. "Clinical trials show that when used with proper diet and exercise, *Fat-B-Gone* tablets can help you lose up to 2-3 pounds per week." In one or two sentences explain why this is NOT a scientific endorsement of the tablets? (See individual responses on attached sheets).

Spring, 2005

No. of courses	1	2	3
No control	35	25	33
Other	65	75	75
Sample size	23	24	48

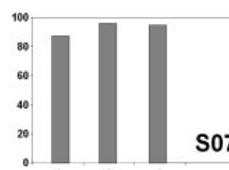
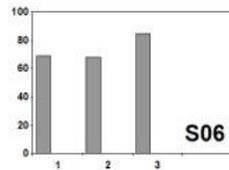
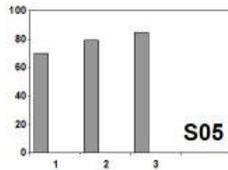
Spring, 2006

No. of courses	1	2	3
No control	47	32	30
Other	53	68	70
Sample size	47	22	40

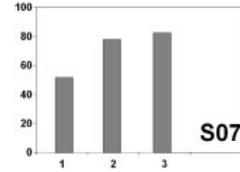
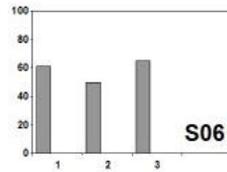
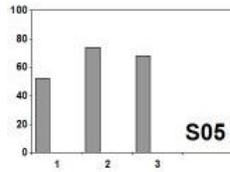
Spring, 2007

No. of courses	1	2	3
No control	47	58	39
Other	53	42	61
Sample size	53	24	31

13. "The idea that the early earth atmosphere lacked oxygen gas has no scientific merit because no human being was present to observe, measure, and record." Do you agree? (Yes/No)



14. "In order to remain objective, a scientist must suppress all imagination and creativity when analyzing data." Do you agree? (Yes/No)



Comments. Overall, results from this year are similar to those in previous years. One difference this year is the very slight improvement seen in several questions by the number of courses taken. For example, in Questions 3, 6, 7, 8, 11, 13, and 14 those students who had taken only one course did not respond as well as those having taken 2 or 3 science courses. These questions tended to address mostly attitudes towards science.

Students still have trouble interpreting a simple graph (Question 4), and most believe that scientific investigation follows a "rigidly prescribed format" (Question 10). Even students with three courses behind them seem to have difficulty with the concept of an experimental control (Question 12) and a scientific model (Question 7). The level of sophistication seen in the answers to the two open-ended questions (Nos. 9 and 12) does not appear to reflect the number of science GE courses taken.

There are errors in this type of survey, of course. The survey was taken anonymously on line through WebCT. Participants were offered the chance for two \$50 gift certificates to the WSU Bookstore. Some respondents may not have taken the task seriously. However, if the open-ended questions were left blank or answered with nonsense the entire questionnaire was discarded. We cannot be sure that students accurately reported the number of GE science courses they had taken, and future versions of the questionnaire will try to eliminate this weakness.

Several instructors have suggested that we approach these areas with different questions to see how that might affect the results. We have had several discussions about the "model" concept, some instructors saying they teach the idea but do not use that specific expression. We will be reviewing this and other concerns in the coming year.

Tim Wood, Coordinator for General Educator Area 5
May 16, 2007

(Attachments: full responses to Questions 9 and 12)

Responses to Question 9

Scientific theories sometimes challenge certain beliefs held strongly by society. Describe an example of this conflict, either current or historical.

Responses from students having taken 1 GE science course:

1. Galileo's proposition that the Sun, not the Earth as was the prevailing theory, was the center of our universe comes to mind. This was met with widespread criticism and claims of heresy, but the world eventually came around and accepted that Gallileo was correct.
2. Evolution
3. Creation vs. evolution... Darwin later changed his mind, and claimed his theory was incorrect.
4. An example of science creating conflict would be the theory that genetic testing for diseases before a child is born would be better because fewer children would be born with diseases thus creating burdens on different people. Most of society believes to accept all children with or without deformities.
5. The creation of man.
6. Big Bang theory V. Creation by God
7. Scientists believe that use of stem cells in research benefit society. Society members however are split on wheth this is ethical.
8. The current debate regarding stem cell potential is an example of this.
9. Feminest views
10. Tthe thoery of evolution. Many people who believe in religion believe that man was created by god and those who believe in science believe in evolution of man.
11. Con, evolution from apes nd fish. This cotradicts the stong christian view in many first world societies of one god who created us.
12. Evolution- God did not make us in 7 days.
13. Evolution vs. Intellegent Design
14. Stem cell research is very controversial.
15. Scientific theory can interrupt religion based ideas. These theories interpret how the earth was made, where humans came from, and what our purpose on earth is.
16. Christians throw their Bibles at science constantly, about evolution especially.
17. Big Bang
18. Obviously, the theory of evolution is the first thing that comes to mind. Many people believe that God made man and woman, and they were as we are today. But scientists are finding evidence that says humans haven't always looked the same, we have evolved from a different breed.
19. Theories that surround cloning are a good example.
20. Cloning; many belief systems are against it, but I think it is for the good. The same goes with donating embryos.
21. Darwin's theory of evolution
22. Evolution
23. Creation.
24. An example of this conflict would be creation vs. evolution. Scientific theories support the theory of evolution, that all living creatures evolved into higher forms and are therefore interconnected. Historically, society has held to a creation viewpoint, that God created the world from nothing and each creature was made individually, rather than evolving. This belief used to

be strongly held by society, but due to the theory of evolution and decline in religious values it is no longer as strongly held.

25. The Scientific Revolution challenged many religious views, including how everything revolved around the earth.

26. Darwin's theory of evolution.....duh

27. Stem cell research and cloning

28. For example, Benjamin Franklin...No one believes his thoughts and ideas until they actually saw them working.

29. The Theory of evolution

30. Scientists believe that if we travel the speed of light or faster we can travel back in time.

31. Most of society would agree that we can not time travel.

32. The theory of evolution continues to threaten certain elements of society who refuse to accept it and believe it challenges their religious views.

33. Not being scientifically a "life/human" when you are an embryo or fetus etc.The age of the earth and the conflict Biblically

34. The idea that man is/was an evolving creature.

35. The debate over evolution or creation. Many believe that humans developed and evolved, while many religious people debate that God created the earth, solar systems, and all beings within it.

36. Evolution vs intelligent design.

37. First of all, this survey needs to be less ambiguous..the question regarding scientists being as ethical as the rest of society hinted that society was "ethical"...but what did it truly mean?

Whose point of view were you trying to champion? Not that those things matter in this context, but it was a confusing, almost tricky question whose meaning came through poorly. Anyway, on to this question. There are so many, I'm just going to stick with an obvious one. Darwin's theory of natural selection...(and, as I understand, he wasn't the only one proposing this idea)...completely threw off the commonly held view of creationism. Neither theory is completely substantiated, of course. However, despite the lack of both theories, they both suggest interesting beginnings, as well as allow us to imagine even more fascinating origins.

38. Big Bang theory, it challenges the religious folk and their religious beliefs of how the world and humans and animals came about/were created/evolved.

39. Darwin's Origin of Species proposed that all living creatures had evolved over millions of years. This challenged traditional Judeo-Christian views that God had created all creatures as they are now, and that the world was significantly younger than Darwin's theory proposed.

40. Pro choice or pro life is an example. Medical reasoning proves a fetus is not a child until it draws breath, however; some people in society feel otherwise.

41. Existence of God

42. If we should bring back our troops or not?

43. Evolution vs. God making Earth

44. Stem cell research

45. Christian believers think that God created humans and all living things. Whereas, many scientists have conducted experiments and believe that humans evolved from creatures many years ago.

46. Big Bang theory, Evolution

47. Scientists claimed that we are not the center of the universe, and received much trouble from the old churches and leaders at that time.

48. When parents are able to pick their child's gender, eye color, hair color etc...
49. Evolution is a theory that upsets some people with strong religious beliefs.
50. Evolution vs creation
51. Some people would argue against science that the world was created by God or Gods.
52. The creation of the earth and the evolution of man are two examples of theories that challenge religious beliefs and is a topic of conflict constantly.
53. Stem cell research
54. The big bang theory conflicts with the ideas of the bible, God, etc.
55. The human race
56. Was earth created by God, or was it already here.
57. Theory that people can be cloned.

Responses from students having taken 2 GE science courses:

58. One scientific theory is that cell phones can give you brain tumors. Society may not agree.
59. Scientists have tried many times to clone humans. they have already succeeded in making a clone of a fish...i believe, and some citizens are not for this study.
60. Everyone thought the world was flat until someone thought it was round.
61. Cloning or stem cell research; also the determination that a fetus is not an actual child
62. When Galileo said the earth was round and the Catholics and everyone at that time thought the earth was square.
63. The big bang theory challenges the certain belief that one may have of believing that Jesus is the creator.
64. Cloning
65. Darwinism
66. Evolution
67. Evolution versus religion for the creation of the earth.
68. Earth being round vs. being flat
69. Evolution (science) challenges religion (beliefs)
70. Evolution. People think there is a scientific way to prove how we came about. I don't think so.
71. There used to be a theory that the Earth was the center of the Universe. Obviously, when it was discovered that this was untrue, this challenged what society had believed.
72. SAYING THAT THE EARTH ISN'T THE CENTER OF THE UNIVERSE, BUT THAT THE SUN IS. THAT WAS A CHALLENGE TO THE CHURCH AND MANY BELIEFS THAT WE WERE THE CENTER OF EVERYTHING.
73. Stemcell Research
74. Look at what Darwin proposed, natural selection and evolution. Evolution today is still controversial but it can be proven scientifically.
75. Darwin's theory
76. Evolution VS. the Biblical way humans came to be. Apes Vs. God.
77. Historically, there was a period of time when society had the belief that the world was flat.
78. However, when the theory of the world being round came about it was quite controversial.
79. A major scientific theory that challenged long-held beliefs was that the earth is in fact a sphere and not flat. For centuries, it was believed that the earth was flat, and anyone who tried to prove that it was spherical was treated as a madman.
80. The obvious example is creation versus evolution, but I'll go with stem cell research. Scientists agree with stem cell research because they have the perspective of how much we can

accomplish medically with this research. Other societal groups, such as religious organizations, view stem cell research as being immoral, therefore causing a conflict not only in society itself, but in politics as well.

81. Evolution vs Creationism

82. The theory that stem cell research can help prevent certain diseases like Parkinson's Disease.

83. Some scientists disregard this theory and say research done has proven that stem cell research can actually cause more harm to tissues in the body and the likelihood of stem cells being able to cure specific diseases is very low.

84. Somehow, certain Christians believe that the Earth is not nearly as old as scientists say it is and that man and dinosaurs walked the earth together. There's a museum in Cincinnati. It's pretty ridiculous.

85. Evolution

86. Theory of how life began.....or who was first Adam and Eve or the Dinosaurs?

87. When Copernicus tried to convince the world that the Earth and the rest of the planet revolve around the Sun.

88. Cloning

89. Evolution: I feel this is an example of a scientific theory that is a continuous challenge on certain beliefs held strongly by society. For instance, a Catholic student may have beliefs that God created man and all the species on earth. However, scientific evidence and theories (such as evolution) question on how man was created; due to the past and present findings that scientists have found in their fields of study.

Responses from students having taken 3 GE science courses:

90. Global Warming

91. Natural selection!

92. The evolution theory is a scientific theory that is challenged by society.

93. Man came from apes.

94. Evolution is a huge issue in conflict with science and religious groups in society.

95. The theory of evolution challenges certain religious beliefs held strongly by society.

96. One conflict would be the evolution versus creationism battle. When religion dominated society, many believed the creation story was the only possibility of how our existence came to be. After many advances in science, scientists proposed that our current existence was the result of millions of years of evolution, not God. This created an uproar and is still a common conflict between science and society today.
using stem cell research

97. The conflict of evolution. Science states life was created by way of the big bang and not be the hand of God Our Holy Father...

98. That genetic engineering of human cells will create a society of genetically altered superhumans, which could be construed as an affront to God in some religious beliefs.

99. One scientific theory that occurred in the past and later became a law that challenged beliefs held by society was Galileo's theory that the sun did not revolve around the earth but that the earth revolved around the sun.

100. Evolution v. intelligent design. Most Scientists believe the world is much older than mentioned in the Bible and that organisms have evolved over a long period of time from very simple single cell organisms into the complex beings they are today. The opposite of this view is that one single intelligent being created the earth and all of its creatures all at the same time only a few thousand years ago.
101. The geocentric vs. heliocentric model of the solar system was one such belief that challenged society. When inconsistencies (such as retrograde motion) were discovered, scientists used this data to support their theory of a sun-centered solar system. This challenged the belief that Earth was perfect, founded in ancient theories and continued in Christian teachings.
102. Evolution
103. Stem cell
104. A historical example could be when people thought of the world as flat and Copernicus challenged that idea by saying the world was round.
105. Evolution is a prime example because a lot of society believes in creation of creatures from God. Science says that we evolved from other animals.
106. Stem cell research
107. When Galileo presented the heliocentric model of the solar system and was then persecuted for it by the church.
108. The scientific theory of evolution. Through human history people have questioned and theorized about human existence and evolution. Some support Darwin's theories and others follow religious theories of their own.
109. A scientific theory that would challenge certain beliefs could be cloning
110. Stem cell research has been a current conflict between society and science.
111. Global warming theory has been a conflict for some people in society. Some believe that it is science, others believe it's the beginning of the Rapture, and even others have different ideas as to why this phenomena is or possibly will occur.
112. An example of this would be the belief that many individuals share about how we became on this earth. Scientists believe in evolution while Christians believe in creation.
113. Evolution challenges the Bible
114. Earlier people used to believe that whenever a solar or lunar eclipse occurred, maybe God/Sun is angry with them but science made it clear that it's nothing like that.
115. The theory of evolution opposes the Christian belief of creation. Even in my courses, when talking about evolution, professors say that they do not want to offend anyone.
116. Darwin's theory of evolution upset the churches and people the evolution theory and Darwin theory. That people were made from monkeys and not from God
117. Big Bang Theory vs. Creation Theory: Historically religious people have always been opposed to the 'big bang theory' since it is the complete opposite to their own beliefs. Beliefs have always been more important to most humans and scientists have always been at 'war' with religious fanatics due to this.
118. A current scientific theory that is challenging current beliefs are those having to do with stem cell research and the possibility of using stem cells in multiple ways
119. Evolution, the beginning of man
120. The theory of evolution and the garden of Eden.
121. Darwin's theory of evolution.

Responses to Question 12

“Clinical trials show that when used with proper diet and exercise, *Fat-B-Gone* tablets can help you lose up to 2-3 pounds per week.” In one or two sentences explain why this is NOT a scientific endorsement of the tablets?

Responses from students having taken 1 GE science course:

1. It is used with exercise and diet and everyone's metabolism is different.
2. Key word diet and exercise reduce weight
3. Maybe the exercise and proper diet is what's working.
4. No evidence of the weight loss is present in real data. Need more data.
5. Proper diet and exercise alone can help lose up to 2-3 pounds a week.
6. The endorsement states "with proper diet and exercise" as well as the tablets the weight is lost, but the weight loss may be attributed to the diet and exercise and the tablets may not attribute to weight loss at all.
7. The only evidence given is based on clinical trials, trials meaning tests, and not necessarily evidence that proves you can lose up to 2-3 pounds per week.
8. The pills haven't been tested to show what they actually do chemically to alter the body and the trial doesn't prove that the pills alone caused the weight loss.
9. The statement does not say what clinical trials took place and who did the trials. It also does not mention FDA approval of the Fat-B-Gone tablets.
10. The words "can help" shows it is not for sure
11. There are no actual scientific numeric figures in the ad.
12. there is no evidence given, there is no proven scientific process. it is just an add. clinical trials means they made it work the way they think it's supposed to be.
13. There is no reference to who performed the clinical studies.
14. There is no statistics or testing that this really works. And with diet and exercise alone people have lost weight and this has been proven time and time again.
15. There needs to be an experiment on Fat-B-Gone without proper diet and exercise.
16. There was no study done, no information was given, no conclusion, no hypothesis, it's just a crock of crap...
17. This is not a scientific endorsement because it does not state any experimental aspects or real experimental data supporting the hypothesis and conclusion.
18. This is not a scientific endorsement because we do not know who did the clinical trials and to what extent they performed the trials to conclude that Fat-B-Gone helps you lose weight.
19. This is not a scientific endorsement of the tablets because proper diet and exercise could actually be the cause of people in the clinical trials losing weight, not the tablets.
20. This is not a scientific endorsement of the tablets because the experiment used diet and exercise, not the tablets themselves which would show if they had any effect alone.
21. Well, it is not explained what the tablets do to you or what is in them. Also, is this a short or a long time solution and does the fat stay off.
22. Well, this seems like some fake information commercial.
23. Well the person would already be dieting and exercising which will help them lose weight so the tablets probably aren't doing anything anyways.
24. What defines a proper diet and exercise?
25. When diet and exercise is used without any sort of tablet one usually will lose one through

three lbs. of fat per week.

26. With proper diet and exercise alone you can lose pounds if you are over weight. Only an overweight person would consider using this.
27. Without the pill, and proper diet and exercise, you could still lose up to 2-3 pounds for week
28. Because it does not show how many clinical trials were done. Also it does not state that it is FDA recommended which means that the scientific procedure could be faulty.
29. Because it says in a clinical trial
30. Because it's more of an advertisement.
31. Because it's showing clinical trials....there are no real life examples here.
32. Because there is no proof that it is the actual fat gone tablets are the cause for the weight loss.
33. Because weight can be lost without the tablets
34. Because when you eat a proper diet and exercise anyone can lose up to 2-3 pounds a week. you don't need any tablets to do it for you and they probably don't really work
35. Because you are putting a foreign substance in to your body.
36. Clinical trials can be done by anyone, and this label doesn't specify that an expert in this field did these trials. Also proper diet and exercise alone will allow one to lose 2-3lbs a week.
37. Clinical trials do not mean they were conducted by a scientific team; they may have been conducted by a group of gym teachers... there is nothing saying 1) that this is true, and 2) who performed the "experiments".
38. Don't know what causes this
39. It does not prove that Fat-B-Gone works. It says it can.
40. It does not give any information as to how many trials were done or how many people were done.
41. If not properly supervised, can become harmful to organs, etc. Also, what I've heard, once you get off the pill you will gain back the fat PLUS more.
42. It depends on what type of diet the patient goes on and the amount and kind of exercise used on top of the tablets. Also, these were clinical trials, not 'in home' trials where people are not monitored.
43. It didn't justify what occurred in the clinical trials to make this in fact a true statement with valid conclusions and procedures.
44. It does not give proper explanation of what is in the pills, and what the ingredient is that makes you lose weight.
45. It doesn't tell you how much you have to exercise or what your diet should be.
46. It is not a scientific endorsement because it is only in the clinical trial phase of development.
47. It is not a scientific endorsement because we don't know who used the products, what their diet was, and how strenuous the exercise program. There are a lot of unknown factors that also could affect the results and skew the tests.
48. It is not scientific because the tablets alone do not decrease your weight, instead, it is a combination of exercise and the tablets, but we all know you only need exercise in the first place to lose weight.
49. It is not scientific because there are no ingredients or chemicals specified in the pill that makes it effective. This is just advertisement, but to make it scientific they would have to support this idea with facts from tests or results.
50. It is stated that the "Fat-B-Gone" tablets can HELP you lose up to 2-3 lbs per week. 51. Therefore, it is saying that in only some trials using the tablet will help with weight loss, it is not

stated that a certified scientists/pharmacist, etc performed these tests, and the trials are not explained for further validity.

51. It is too broadly stated. Who will lose weight? Compared to what weight class? Obese? Or mildly overweight? What constitutes proper diet or exercise?

Responses from students having taken 2 GE science courses:

52. Because it does not define "proper diet and exercise".

53. Because it doesn't prove, or even say how the tablets work. It just says that they do work. because you are exercising and eating properly it wasn't the pill that caused you to lose weight!

54. Clearly, we need to know who conducted these trials...under what kinds of conditions, what kinds of people, etc. and so forth. We need to know EVERY detail to determine that this is a safe, efficient, and effective route to take. This advertisement gives us NO information.

55. Doesn't say anything about the nature of the scientific trials, who did them or how many.

56. Elements outside the control of clinical trial parameters make it inadvisable for scientists to endorse the product.

57. How much exercise and what kinds were the subjects getting, were they men or women, how old were they, how overweight were they, these questions were not addressed, it was not a controlled experiment.

58. I do not understand the question is asking...?

59. It does not say anything particular about the clinical trials or who ran them.

60. It doesn't say if the person had or did exercise while taking it. It also didn't say if the person had or did change the foods that they consumed.

61. It's not a scientific because it does not have a placebo effect to show that another diet exercise table works better than Fat-B-Gone .

62. None of these fat burning pills or weightloss pills are FDA approved or backed... Some doctor somewhere just says it does.

63. Proper Exercise and Dieting alone would help you lose 2-3 lbs a week

64. Science would not help endorse such a product because that is money that will go into the drug companies. Science says that just proper diet and exercise is good enough to lose weight in a healthy way.

65. That statement doesn't state what Fat-B-Gone can do by itself. For example, it doesn't say if you lose weight with only using Fat-B-Gone.

66. The advertisement is not explaining what the product does physically to produce this weight loss.

67. The endorsement doesn't say how the tablets can make you lose weight other than that it states the obvious that with diet and exercise you can lose weight.

68. There is no data to either support or contradict the statement.

69. There is no way of knowing whether or not the pills are in fact placebos. There is no control data. If they provided data regarding the amount of weight lost with only use of tablets compared to amount of weight lost with tablets, diet, and exercise, then it could be a valid endorsement. 70. Otherwise, one may assume that diet and exercise produced the weight loss.

71. There is nothing implying a constant in this process. For instance: what if one only diets or only exercises while on this Fat-B-Gone tablet?

72. There was no control.

73. This is not a scientific endorsement because it does not have any lab results shown and it does not have any scientific reasoning to why this product works

74. This is not a scientific experiment because there was no control to base upon the results.
75. This is not scientific, because it gives no research on Fat-B-Gone tablets alone. Proper diet and exercise can help one lose weight, and there is no hard evidence that the weight lost were from these tablets.
76. With "Proper diet and exercise" everyone could lose 2 or 3 pounds a week. There is no proven correlation between the pills and the weight loss.

Responses from students having taken 3 GE science courses:

77. Because findings haven't been posted in a scientific journal
78. Because you are dieting and exercising at the same time.
79. Because you are working out as well
80. Does not address what if an experiment was used to prove this.
81. First, the statement does not qualify "proper diet and exercise." Also, it does not cite any research institutions or methods, nor credentials of the researchers to suggest that the tests had any scientific validity.
82. How can it be proved that just diet and exercise alone did not make the person lose weight?
83. The pills could have done absolutely nothing to aid in weight loss.
84. I don't really understand what a scientific endorsement really is.
85. If you are eating a proper diet and exercising then you are probably losing the 2-3 pounds that way and not by taking a Fat-B-Gone pill.
86. It does not explain the scientific method required in these clinical trials.
87. It doesn't give enough information about the tablets and what you have to do in order to lose weight.
88. It doesn't name which clinical trials or any data or specifics about the trials. It is just an obscure claim without facts to support the statement.
89. It doesn't say what kind of drug or medicine is in the tablets or what any side effects may be.
90. It doesn't state any previous tests and it can't guarantee that everyone will lose that much weight or any at all.
91. It is merely presenting results from a drug trial. This does not mean that they are trying to sell the product or market it.
92. It may be diet and exercise that explained why a person lost weight, not necessarily the tablets.
93. In order to prove that the tablets were the cause of weight loss, the other variables would have to be eliminated.
94. Proper Diet and Exercise isn't a scientific solution.
95. The endorsement does not state how the tablets actually work.
96. The methods and results of the trial have not been specified, and the statement advertises proper diet and exercise in conjunction with the pill. Without proper test groups, you can't tell if it is the diet and exercise that's causing the people to lose weight or the pill.
97. There is no control group, proper diet and exercise is vague, the statement is generally vague,
98. There is no evidence.
99. There is no explanation of how it works. "clinical trials show" doesn't sound scientific to me.
100. There is no reference or scientific data to support that claim. It is an ambiguous statement.
101. They are simply making a statement. They are not providing any scientific evidence to support it.
102. They haven't been tested.

103. This advertisement is does not show scientific data such as their testing results.
104. This does not show a specific example it is worded more like an opinion.
105. This does not state how Fat-B-Gone might affect you and what chemicals are involved in the pill.
106. This is just stating that it will help lose weight. There is no scientific data that ensures it.
107. This is not a scientific endorsement because it does not use scientific evidence to back it up.
108. This is not a scientific endorsement because proper diet and exercise are variables that will vary from person to person.
109. This is not a scientific endorsement because there is a possibility that it was the diet and exercise that helped lose the weight and not the Fat-B-Gone.
110. We don't know who did the trials, and on whom

Memo

Date: January 31, 2007
To: Dr. Sharon H. Nelson, Associate Dean
From: Jung-Soo Yi, Curriculum Committee* Chair
Subject: GE Area VI Discussion on January 09, 2007

Area VI requirement aims to connect the GE requirement with the students' major programs and strengthening general education. To examine how effectively this goal is being met, six courses were reviewed for fall 2006. Each category including number of students completing exam and adequate responses was discussed.

In the fall of 2006, COLA offered six courses from Area VI: AFS 200, ATH 241, ATH 242, HST 220, PHL 200, and TH 250. The goal for Area VI is a 100% with 80% still considered acceptable. With some variations among courses, two courses reached acceptable scores (AFS 200; 90% and ATH 241; 89%), two were reported to be under 80% (ATH 242; 73% and PHL 200; 68%), and for two courses no information was reported (HST 220 and TH 250). The committee was pleased with two courses reaching acceptable scores, but two courses not reaching the desirable scores need to be carefully monitored to see what outcomes they would produce in following quarters. With these results, it requires to have further course offerings and reviews before making a conclusion of effectiveness for these courses in Area VI requirements.

Instructors of two courses reaching desirable scores commented that most students see a connection between Area VI courses and other courses they have taken at this university. Even instructors of those two courses not reaching desirable scores made positive comments about students' progress in the courses. They mentioned that most students demonstrate understanding of marker questions and improved their study skills with overall adequate responses.

Although more reviews and monitoring are required for each course, the members of the curriculum committee concluded that the GE Area VI is going in the right direction and should continue to do so until further improvement would be necessary with suggestions from instructors and committee members.

*Committee: Jung-Soo Yi (Chair), Charles Funderburk, Pam Knauert-Lavarnway, Barry Milligan, Benjamin Montague

Memo

Date: May 2, 2007
To: Dr. Sharon H. Nelson, Associate Dean
From: Jung-Soo Yi, Curriculum Committee Chair
Subject: GE Area VI Discussion on April 30, 2007

The purpose of the Area VI requirement is to strengthen the general education of students before and/or while they pursue their major programs. To explore the effectiveness of the Area VI requirement, the COLA Curriculum Committee reviewed five courses for winter 2007, discussing the number of students completing the exam and the number of "adequate" responses to the questions.

During Winter Quarter, 2007, COLA offered five courses from Area VI: AFS 200, ATH 242, CLS 260, SW 272-01, and SW 272-02. The goal for Area VI is for 100% "adequate" response to the questions with 80% still considered acceptable. With minor variations among courses, four courses were reported to attain acceptable scores (AFS 200; 95%; CLS 260; 83%; SW 272-01; 98% and SW 272-02; 100%) and an average response rate below 80% was reported for one course (ATH 242; 60%). Comparable to the fall 2006 report, ATH 242 continued to reflect less than an 80% adequate response rate. With a majority of courses reaching the desirable benchmark, the committee found these to be acceptable. Based on the reported results for ATH 242, however, it is recommended that this class be carefully monitored by the instructors and the CoLA Curriculum Committee to determine if adjustments need to be considered.

After reviewing tabulated data regarding "adequate" responses, the committee also concluded the following:

1. Instructors did not share a common understanding of either what constituted an "adequate" response or what percentages needed to be reported.
2. The "marker question" method of ascertaining whether students are meeting Area VI goals is fatally flawed insofar as it presupposes that a standardized, quantitative system can measure the degree to which students have mastered complex reasoning and communication skills, which the committee agreed is an erroneous supposition.

In light of these findings, the committee agreed that next year's CoLA Curriculum Committee should work with UGEC toward the following ends:

1. ensuring that all faculty better understand the nature and goals of general education;
2. devising a system whereby instructors teaching Area VI courses in CoLA can share a more common understanding of Area VI goals and how best to meet them, both as individual teachers and as a collective faculty. The committee discussed some initial, tentative ideas about how to approach such goals, including the possibility of regular meetings at several levels, from groups of instructors who teach the same Area VI course to groups of faculty who teach different Area VI courses in CoLA.

**Assessment Report for EGR 190 Fundamentals of Engineering & Computer Science
May 2007**

Course Objectives and GE Learning Outcomes:

There are four goals for this course: to introduce students to engineering principles through hands-on experience, foster collaboration among students through cooperative team project activities, establish a sense of community among the students, and develop an understanding of how to be successful in studying engineering.

The course consists of one weekly lecture and two weekly labs, a computer based lab and an instrumentation based lab. The student will learn about basic engineering tools such as data acquisition, test equipment, computer aided drafting, MathLab, and gain computer skills in web searching, web page design, and communications. They will also learn about themselves as a person and as a student, and actually design and build things.

The writing intensive component contributes to the writing across the curriculum objectives which are:

1. To improve students' writing proficiency – their ability to develop ideas and transmit information for an appropriate audience in an organized, coherent fashion while writing with appropriate style and correct grammar, usage, punctuation and spelling.
2. To encourage students to use writing as a learning tool to explore and structure ideas, to articulate thoughts and questions, and to discover what they know and do not know, thereby empowering students to use writing as a tool of discovery, self-discipline, and thought.
3. To demonstrate for students the ways in which writing is integral to all disciplines, essential to the learning and conveying of knowledge in all fields.

Assessment:

There were three members on the E&CS assessment committee.

Blair A. Rowley, Freshman Program Director, E&CS
Ruby Mawasha, Assistant Dean, E&CS
Thomas Bazzoli, Assistant Dean, E&CS

Assessment was been done using marker questions from examinations and reviewing the WAC assignment. Ten students were chosen at random.

Marker questions were chosen to test how students performed in understanding engineering principles. These were:

1. Application of engineering instruments for measuring circuit parameters,
2. Circuit analysis involving series and parallel resistors,
3. Analyzing a circuit using Ohm's law and Kirchhoff's voltage law.

The methods for fostering collaboration, developing a sense of community, and being successful in studying engineering were also reviewed. These consisted of student surveys, and completion of homework.

Homework was used to provide students an understanding of how to be successful in studying engineering. The text book used proved successful and all students who passed completed all assignments.

Writing was evaluated by examining how students did in meeting the WAC requirements. These requirements were spelled out on the course's web site and a rubric was used in grading. The WAC consisted of a description paper on how some item of technology works. The students were allowed to choose their subject. It had to have sufficient complexity to be able to provide enough detail to be interesting. They submitted a first draft which was reviewed and returned. The students rewrote the paper and submitted a final copy. The final copy was graded using the rubric.

The paper had to meet the following minimal requirements.

1. Adhere to the form described above and be written using MS Word.
2. Include at least one diagram or illustration. Each diagram or illustration **must** be integrated and discussed in the text.
3. Document the source of your material, diagrams, illustrations, etc.
[\(Documentation\)](#)
4. Contain enough text to fill 3 pages (1500 words) if you excluded all diagrams and illustrations.
5. Single space, 12pt type, Times New Roman font, 1 inch margins all around.
6. Be written for non-technical readers, which means keep it simple and straight forward.
7. Be shared with others to get feedback. (Consider that it may be put on a web site for others to look at.)
8. Have a backup copy.

Results:

Spring 2006

Data for spring 2006 is not available. The course professor had to leave on a personal emergency the last week of the course and the spring data was mistakenly shredded.

Fall 2006

Marker question one: nine were correct – 90%

Marker question two: ten were correct – 100%

Marker question three: seven were correct – 70%

Winter 2007

Marker question one: nine were correct – 90%
 Marker question two: ten were correct – 100%
 Marker question three: seven were correct – 70%

WAC grades were

Fall 2006 - 100, 88, 90, 100, 100, 100, 0, 100, 100, 80
 Winter 2007 - 100, 100, 95, 100, 100, 100, 100, 100, 100, 100
 Student feed back from teaming events follow:

Survey Items Flying Project	Percentage	
	Yes	No
Do you have prior experience to flying RC planes	10%	90%
Did this project contribute to your learning experience?	100%	0%
Did you have fun in this project?	100%	0%
Did this project Increase your interest in engineering and computer science?	90%	10%
Did this project helped you develop your ability to work as a team member	100%	0%
	Overall Average 1- Low, 5-Highest	
Rate the difficulty of this project in comparison with other work	1.9	
How well did all your team members work together as a team?	4.7	

Survey Items Final Project	Fall 2006
Number of different projects considered before finalizing on the project	2
Total Project Cost per person	\$22.5
Used experience gained from the EGR 190 labs	Yes
Number of times team met	4
There was a team leader for the group	40%
Work was distributed evenly	80%
Sought outside help during the project	70%
Time Spent on Power Point Presentation	1 hour
Time Spent on Verbal Presentation	25 min

Personal contribution to the team	70%
There was better communication in the team as time went by	70%
Everyone accepted their responsibilities	100%
Everyone attended all the meetings	60%

Conclusions:

Compared to the 2006 assessment report the marker questions show improvement. Circuit analysis improved 20%, and use of Ohm's and Kerchoff's laws improved 30%. Application of instruments remained the same.

Marker Question	% Correct 2006	% Correct 2007
one	90	90
two	80	100
three	40	70

Based upon the marker questions the area of Ohm's and Kirchhoff's laws still needs improvement. More emphasis in lecture and lab with more practice problems are to be tried.

The teaming events provide students basic understanding and training on engineering principles, teaming, communication skills, and leader ship qualities. Although each project varied in the requirements, all of them focused on teaming. The bridge building project helped students meet one another and start keeping an engineering log. The airplane project taught principles of flight and tied it together by team building a plane and learning to fly. This helped increase their interest in engineering and computer science, further developed their teaming, and was a good learning experience. The final project helped students understand how to apply what they learned in lecture and lab, increased their teaming, and contributed to their communication skills.

Review of the students WAC papers showed a good grasp of what was required. The grading focused upon the technical content rather than the structure. However the information had to be presented in a readable and fairly well structured format. The requirements for the WAC assignment were met.

Overall the course is meeting its objectives well.

I. Title of Program: Bachelor of Science in Nursing

II. Program Changes:

The College of Nursing and Health initiated a request in spring 2005 to the department of Neuroscience, Cell Biology and Physiology to consider the feasibility of changing the current human anatomy and physiology sequence of courses that nursing and other students take from a two course anatomy and two course physiology sequence (ANT 201 & 202 and P&B 301 & 302) to a three course combined human anatomy and physiology sequence of courses. The goal of this proposed change was to provide the same high quality foundation in anatomy and physiology that our graduates are known for, in a more streamlined sequence that would maximize the capacity for students to complete this sequence before beginning clinical nursing courses. The space and faculty/staffing resources of the NCBP department was also a strong consideration in the feasibility of this proposed change.

The NCBP department developed a revision of ANT 201 & 202 and P&B 301 & 302, with input from all departments on campus whose students have these courses in their programs of study. The new course inventories for ANT 310, 311 & 312 were sent through the appropriate channels for official feedback and approvals.

The NCBP department began offering this new sequence fall, 2007 under a currently existing variable topic, variable credit course: ANT 499 and will be offered under the new course numbers ANT 310, 311 & 312.

The change in Anatomy and Physiology sequence went from 16 credits to 15 credits. CoNH curriculum committee approved a course modification for NUR 306 from 3 credits to 4 credits. The additional 10 hours of classroom time will be used to expand the range of pathophysiology topics in areas that have been noted by faculty to be lacking in the nursing program. (See attached syllabus for NUR 306 with topical outline.)

III. Transition Plan:

Students who completed Anatomy 201 (S '07) had the opportunity to take ANT 202 in summer '07 and continue with the P&B 301 for Fall '07 and P&B 302 in winter '08. This cohort of students is the group that who began nursing courses in Fall 2007. There will be no change in the program of study for this cohort of students. Any students who are out of sequence due to failing a course or due to personal reasons for dropping out of sequence will be advised about where their completed courses fit with the content of the new sequence of courses and which course(s) within the new sequence will fulfill their requirements. By going from 4 courses to 3 courses, it is likely that students will be able to successfully complete no more than the original 4 course total to complete the sequence.

Students who would have started the ANT 201 sequence in fall '07 took the new Human Anatomy and Physiology I course offered as ANT 499. This group of students will follow the attached proposed Sample Curriculum plan for Track II Spring Entry.

Students who are not prepared to start the new sequence in fall, will have the opportunity to begin the sequence in winter '08. They will follow the attached proposed Sample Curriculum plan for Track I Fall Entry.

BSN cohort to graduate Fall 2009 (F '07 start Nursing) P & B 301 & 302 needed for this cohort even if transfer credit for combined A&P sequence accepted.	Spring 2007—ANT 201	If fail, take new A&P I fall 2007 (change to S 2010 graduation, S 2008 start Nursing cohort)
	Summer 2007—ANT 202	If fail, take new A&P I fall 2007 (change to S 2010 graduation, S 2008 start Nursing cohort)
	Fall 2007—P&B 301 (start Nursing)	If fail go on to P&B 302 Winter; take new A&P course as advised by NBCP faculty. (change to S 2010 graduation, S 2008 start Nursing cohort)
	Winter 2008—P&B 302	If fail take new A&P course as advised by NBCP faculty. (change to S 2010 graduation, S 2008 start Nursing cohort)
BSN cohort to graduate Spring 2010 (S 2008 start Nursing) Transfer credits for completed combined HA&P may be accepted. Partial sequence evaluated by NBCP faculty.	Fall 2007 new A&P I	If fail, repeat A&PI winter
	Winter 2008 new A&P II	If fail, repeat A&P II spring
	Spring 2008 new A&P III (start Nursing)	If fail, repeat A&P III Summer
BSN cohort to graduate Fall 2010 F 2008 Start Nursing	Winter 2008 new A&P I	If fail, repeat A&P I following fall
	Spring 2008 new A&P II	If fail, repeat A&P II following Winter
	Summer 2008 new A&P III	If fail, repeat A&P III following spring
	Fall 2008 (start Nursing)	

IV. Curriculum Coordination. Representatives from the department of Biological Sciences which includes the degrees in Biology, Environmental Health, and Clinical Laboratory Science and majors under biology in Exercise Biology, Microbiology and Immunology as well as a pre-medicine track were included in the discussions about planning for this new sequence. There was universal support for making the change from 2 Anatomy courses and 2 physiology courses to a 3 quarter Human Anatomy and Physiology sequence. It is anticipated that this new sequence may be appropriate for a wider array of science students who are interested in fields that require this base of knowledge. (See attached letters of support for the change).

V. Resource Coordination. There will be no new resources needed in the area of computer and library resources. The NCBP department has assessed the need for two additional GA positions during winter and spring quarters due to the need to schedule labs in two courses during each of those two quarters. The benefit to the department will be the potential to increase interest in the graduate program in Anatomy through these additional opportunities.

Comparison of Existing and Proposed BSN Program

Traditional Prelicensure

Existing BSN Program Requirements		Proposed BSN Program Requirements	
I. General Education Required substitutions: Area I: STT 160 Area II: PSY 105, SOC 200 Area V: CHM 102, ANT 201, ANT 202 Area VI: NUR 212 or HLT 201, or 202, or 203 (If HLT 201, 202, OR 203 is taken as Area VI, NUR 212 is still a nursing major requirement).	57.5	I. General Education Required substitutions: Area I: STT 160 Area II: PSY 105, SOC 200 Area V: CHM 102, ANT 310*, ANT 311* Area VI: NUR 212 or HLT 201, or 202, or 203 (If HLT 201, 202, OR 203 is taken as Area VI, NUR 212 is still a nursing major requirement).	59.5
II. Support Courses M&I 220 P&B 301, 302 BMB 250 PHR 340 PSY 110, 311, 341	32	II. Support Courses M&I 220 ANT 312* BMB 250 PHR 340 PSY 110, 311, 341	29
III. Nursing Requirements NUR 209 (4) NUR 210 (2) NUR 212 (4) NUR 217 (6) NUR 218 (6) NUR 304 (3) NUR 305 (3) NUR 306 (3) NUR 307 (4) NUR 321 (7) NUR 322 (7) NUR 323 (7) NUR 324 (7) NUR 406 (2) NUR 407 (2) NUR 421 (7) NUR 422 (7) NUR 423 (7) NUR 424 (10) NUR 414 or 415 (electives)	97-101	III. Nursing Requirements NUR 209 (4) NUR 210 (2) NUR 212 (4) NUR 217 (6) NUR 218 (6) NUR 304 (3) NUR 305 (3) NUR 306 (4) NUR 307 (4) NUR 321 (7) NUR 322 (7) NUR 323 (7) NUR 324 (7) NUR 406 (2) NUR 407 (2) NUR 421 (7) NUR 422 (7) NUR 423 (7) NUR 424 (10) NUR 414 or 415 (electives)	98-101
IV. Free Electives	1.5-5.5	IV. Free Electives	1.5-5.5
Total	192	Total	192

* Indicates newly designed courses

TRACK I - FALL ENTRY

FALL		WINTER		SPRING		SUMMER	
<u>First Year</u>							
ENG 101	4	ENG 102	4	ANT 311	5	ANT 312	5
SOC 200	4	CHM 102	4.5	M&I 220	5	PSY 341	4
STT 160	5	PSY 105	4	PSY 110	4	GE ELECT*	4
FREE		ANT 310	5	HST			
ELECT	2			ELECT	4		
	15		17.5		18		13
<u>Second Year</u>							
NUR 209	4	NUR 217	6	NUR 218	6	NUR 321	7
NUR 210	2	NON WST	4	PSY 311	4	NUR 307	4
NUR 212	4	BMB 250	4	PHR 340	3	NUR 305	3
NUR 306	4	FREE					
		ELECT	2				
	14		16		13		14
<u>Third Year</u>							
NUR 324	7	NUR 322	7	NUR 421	7	NUR 423	7
NUR 304	3	NUR 323	7	NUR 422	7	NUR 407	2
HUM EXP				NUR 406	2	GE ELECT*	4
ELECT	4						
	14		14		16		13
<u>Fourth Year</u>							
NUR 424	10						
NUR 414	3						
FREE							
ELECT	2						
	15						

TRACK II - SPRING ENTRY

FALL		WINTER		SPRING		SUMMER	
<u>First Year</u>							
ENG 101	4	ENG 102	4	M&I 220	5		
SOC 200	4	CHM 102	4.5	PSY 110	4		
STT 160	5	PSY 105	4	GE ELECT*	4		
FREE		NON WST	4	HST			
ELECT	3			ELECT	4		
	16		16.5		17		
<u>Second Year</u>							
ANT 310	5	ANT 311	5	NUR 209	4	NUR 217	6
PSY 341	4	PSY 311	4	NUR 210	2	NUR 306	4
GE ELECT*	4	HUM EXP		NUR 212	4	BMB 250	4
		ELECT	4	ANT 312	5		
	13		13		15		14
<u>Third Year</u>							
NUR 218	6	NUR 321	7	NUR 322	7		
NUR 307	4	NUR 324	7	NUR 323	7		
PHR 340	3	NUR 304	3	NUR 305	3		
	13		17		17		
<u>Fourth Year</u>							
NUR 421	7	NUR 423	7	NUR 424	10		
NUR 422	7	NUR 407	2	NUR 414	3		
NUR 406	2	FREE					
		ELECT	3				
	16		12		13		