General Education Council
Minutes
10.23.00

Council Members Present:
M. Hennessy-Liberal Arts
T. Hindson-Liberal Arts Alternate
M. Lord-Education
C. McCall-Education
V. Sriraman-Science
T. Mottet-Fine Arts and Comm
B. Brown-Liberal Arts
F. Blevens-Fine Arts and Comm
B. Melzer-Health Professions
L. Lambert-Science
L. Thomas-Health Professions
S. Beebe-Chair Representative

Council Members Absent:
J. Crawford-Science
W. Stone-Applied Arts
S. Springer-Applied Arts
J. Oliver-Business
F. Ploeger-Business
A. Lopez-Student Representative
M. Benavides-Student Representative

Meeting convened at 3:37 p.m.

R. Brown asked the Council to review the agenda.

Motion:
R. Brown asked for a motion to approve the minutes from September 25th and October 10th. M. Lord so moves. C. McCall seconds the motion. The September 25th and October 10th minutes were approved as prepared.

S. Beebe suggested to the Council that the minutes be shorter and summarize the motions. R. Brown told the Council they would revisit the issue at a later time.

Motion:
The Subcommittee recommended the following:

Since the student representatives to the General Education Council normally have completed their general education courses, responsibly attended the Council meetings, and served the student perspective on the Council, we would recommend their being granted voting status.

While there are reasonable arguments on both sides of this issue, the Subcommittee members agreed that the Council is a recommending body and the student vote would represent only a part of the over-all consensus on any issue. Since the Dean of the College and Vice-President for Academic Affairs would be apprised of votes on critical issues, University interests should prevail.

Motion passed unanimously. R. Brown will make the appropriate corrections to the PPS.

B. Melzer told the Council that the Subcommittee had melded the Coordinating Board Natural Science Component and the SWT Natural Science Component to have all the information in one place. The Subcommittee also created a Subcommittee Review Form.

Motion:

The Subcommittee recommends that the Natural Science Component should incorporate all the following assumptions, definitions, objectives, requirements and assessments:

Texas Coordinating Board Physical and Natural Science Component

Assumptions

1. Every institution of higher education will adopt a core curriculum. . .
2. . . . a core curriculum should contain courses that establish multiple perspectives on the individual and the world in which he or she lives. . .

Definition

The objective of the study of a natural sciences component of a core curriculum is to enable the student to understand, construct and evaluate relationships in the natural sciences, and to enable the student to understand the bases for building and testing theories.

Exemplary Educational Objectives

The way in which colleges and universities achieve these outcomes will thus vary in accordance with the particular circumstances of the institutions. The outcomes for student learning provide both guidelines for instruction and also a profile of the student. . . . The student will be able to:

1. understand and apply method and appropriate technology to the study of natural sciences
2. recognize scientific and quantitative methods and the difference between these approaches and other methods of inquiry and to communicate finds, analyses and interpretation both orally and in writing
3. identify and recognize the differences among competing scientific theories
4. demonstrate knowledge of the major issues and problems facing modern science, including issues that touch upon ethics, values, and public policies
5. demonstrate knowledge of the interdependence of science and technology and their influence on, and contribution to, modern culture.

Southwest Texas State University Natural Science Component

Definition

The Natural Science Component encompasses that growing body of knowledge by which humans attempt to understand natural phenomena of the universe. These sciences constitute the knowledge base for a number of applied disciplines within the modern university, including industrial arts, physical education, the health sciences and nutrition.

Requirements

All students will complete two Natural Science Component courses from the approved list of courses. One of the two courses must be a laboratory course. If the two courses are from different sciences within the Natural Science Component, both courses must include a laboratory.

The courses that satisfy the Natural Science Component present the basic information for the discipline. In addition, these courses also present the scientific approach to the world: how does a scientist view nature, test observations, and create new knowledge? The questions that should be addressed in any Natural Science Component include:

- What is the basic information that one should know for this area of science?
- What are the techniques for using the equipment characteristics of this area of science?
- What laws of nature support this science?
- How does one approach nature from an objective (impersonal) point of view?
- What are the significant features of a given observation?
- What is the significance of a given pattern?
- How does one use the Scientific Method to create new knowledge?
- How do laboratory experiments illustrate natural phenomena in a structured way?
- What constitutes valid science?

Objectives

As students find answers to the above questions, they will develop a set of skills that will enable them to approach the world from a scientific perspective. Corresponding to the questions posed about the student should be able to:

- answer objective questions on basic facts and theory from the given area of science.

- use properly the equipment from the given area of science.
- perceive natural phenomena objectively
- structure their powers of observation in a given situation.
- recognize examples of patters they have studies.
- use the Scientific Method to create knowledge new to them.
- formulate specific tasks as part of an organized approach to accomplishing a complex goal.
- recognize the occurrence of scientific phenomena in the world around them.
- determine if, in a given situation involving the using of the Scientific Method, the use is valid.

Assessment

In evaluating students' success in meeting the objectives of the Natural Science Component, and in assessing the overall effectiveness of courses that satisfy this component, faculty use some or all of the following measures:

1. Objective quizzes and tests that determine whether students have mastered the cognitive skills in the course.
2. To help determine instructor, course and program effectiveness :
   a. Faculty surveys, including peer review of syllabi and tests;
   b. End-of-course student evaluation.

Courses meeting the Natural Science Component:

Prior to Fall 2000:

Course number:	Course Title:	Prerequisites:
BIO 1310	Principles of Biology	None
BIO 1410	Introduction to Plant Biology	None
BIO 1420	General Zoology	None
CHEM 1310/1430	Chemistry for Non-science Majors	For 1430: 1310 or 1410
CHEM 1410/1420	General Chemistry I & II	None
GEOL 1410	Physical Geology	None
GEOL 1420	Historical Geology	GEO 1410
PHYS 1110/1310/1320	Elementary Physics	None
PHYS 1410/1420	General Physics I & II	1410: MATH 315&1317 1420: PHYS1410
PHYS 1430/2425/2435	Engineering Sequence	1430: coreq: MATH 2471 2414: prereq1430; coreq: MATH 2472 2435 prereq: 2425; coreq: MATH 3373

Fall 2000 and after:

Course number:	Course Title:	Prerequisites:
ANTH 2414	Physical Anthropology	None
BIO 1320	Modern Biology I *(nonmajors)*	None
BIO 1421	Modern Biology II *(nonmajors)*	None
BIO 1430	Functional Biology *(majors)*	None
BIO 1431	Organismal Biology *(majors)*	None
CHEM 1310	Intro Chem for Non-science Majors	None
CHEM 1430	Chemistry for Non-science Majors	CHEM 1310 or 1341
CHEM 1341/1141	General Chemistry I	coreq: 1141
CHEM 1342/1142	General Chemistry II	1342: prereq:1341 & 1141 1142: Prereq/coreq: 1342
GEOL 1410	Physical Geology	None
GEOL 1420	Historical Geology	GEOL 1410
PHYS 1110/1310/1320	Elementary Physics	None
PHYS 1140/1340/1350	Astronomy	None
PHYS 1410	General Physics I	MATH 1315
PHYS 1420	General Physics II	PHYS1410
PHYS 1430	Mechanics and Heat	coreq: MATH 2471
PHYS 2425	Electricity and Magnetism	PHYS1430; coreq: MATH 2472

Discussion:

L. Lambert asked how a course is evaluated? R. Brown appoints a committee and they review the proposed course. After the committee evaluates the course they make a recommendation about that course to the Council. The department and Council are given the recommendation at the same time. The department representative may be available to answer questions from the committee or the Council. The Council will have time to review the materials and get any questions answered. The vote for a proposal will take place at the following meeting.

The motion passed unanimously.

The Subcommittee has divided up the other components and will create documents in the same format as the Natural Science Component. They will bring those components to the Council, as they are finished.

B. Melzer told the Council she thinks the initial communication needs to be between the subcommittee and the department.

R. Brown asked the Council to review the Liberal Arts Model Syllabus. He asked the council if they wanted to create a minimum expectation model syllabus?

Motion:
R. Brown asked for a motion to approve the following minimum criteria for the General Education Model Syllabus:

- Semester (i.e. Fall, Spring, Summer I, or Summer II).
- Instructor's name, office number, office telephone number, and e-mail address.
- Office hours
- Course prefix/number and title.
- Course description and objectives.
- Required textbook(s) and materials (title, authors, publication date and/or edition, etc.).
- Brief course outline and schedule
- Any special requirements (especially those introducing students to the library as a resource for research and/or those which make use of computer applications).
- Instructor's grading policy.
- Instructor's attendance policy.
- Date/time for final exam (optional, but very helpful)
- Also important to students with special needs is a policy statement that might read: Students with special needs (as documented by the Office of Disability Services) should identify themselves at the beginning of the term.
- Institutional Academic Honesty Policy

S. Beebe so moves. B. Melzer seconds the motion. The motion passed unanimously.

In the Spring the Council will look at the perspectives and the syllabi. R. Brown will appoint a committee to oversee the syllabi every couple of years.

Motion:
R. Brown entertained a motion to adjourn. C. McCall so moved. M. Lord seconds the motion. Meeting was adjourned at 4:37 p.m.