Original Documents and Forms

The following guidelines and forms were located on the original General Education website.

- Overview
- Tier I Individual and Societies Guidelines
- Tier I Natural Sciences Guidelines
- Tier I Traditions and Cultures Guidelines
- Tier I proposal form
- Tier II Proposal Form

OVERVIEW OF THE TRANSFER GENERAL EDUCATION CORE CURRICULUM

With the statement of values as common ground, the Arizona public community colleges and universities have agreed upon a common structure for a general education core curriculum. This core curriculum provides students attending any Arizona public postsecondary institution with the opportunity to build a core general education program which is transferable to any other state institution without loss of credit. This common agreement is called the Transfer General Education Core Curriculum (TGECC).

The TGECC is composed of a minimum of 41 semester hours of lower division general education coursework in which a student may prepare for transfer. The TGECC is transferable from one Arizona community college to another Arizona community college. Students transferring from an Arizona community college to one of the three state universities have the option of completing the lower division general education requirements at the university to which they transfer or completing the TGECC. Courses beyond the TGECC which are completed at an Arizona community college will be accepted in transfer by each university according to course articulation information provided in the Arizona Higher Education Course Equivalency Guide.

Completion of the TGECC will fulfill lower division general education requirements at all three state universities. Students utilizing this option will still be required to fulfill lower division program requirements and prerequisites within their college and major/minor area of study. In order to most efficiently complete a degree program, students should select courses to meet the TGECC requirements that will also fulfill program requirements in the college and major they intend to pursue upon transfer. Majors in the professional fields -- i.e., architecture, engineering, business, fine/creative arts, or health professions -- and sciences have significant prerequisites and/or program requirements that must be completed before a student may be admitted to upper division coursework. Community college students who are undecided about which of the three universities they plan to attend or what program of study they intend to pursue are advised to explore educational options while they complete the TGECC. In all cases, students have the responsibility for selecting general education coursework that is relevant to the requirements of their intended major and degree.
Transfer students must meet established institutional admissions standards, as well as admission criteria for specific majors/programs at the state universities. Students who complete both the TGECC and an Associate of Arts degree will be assigned junior-class standing by the three state universities. Junior-class standing is based on the number of units a student has earned and does not necessarily indicate the remaining number of units needed to complete degree requirements. Course prerequisites, major requirements, and upper division requirements will continue to be specified by each university. Appropriate sequencing of course and timely completion of course prerequisites are essential to ensure efficient progress toward a baccalaureate degree. Students who have identified the university they plan to attend and/or a major area of study are advised to fulfill requirements and prerequisites identified by these programs through transfer guides and/or curriculum check sheets provided by the three state universities. The TGECC does not replace or disregard articulation agreements developed to enhance the transfer process between specific institutions.

The TGECC is outlined in this document. Each Arizona community college will identify coursework that will comprise the lower division TGECC at that institution. In order for a course to be included in a community college's TGECC, it must be accepted for transfer credit in any category (equivalent course, departmental elective credit, general elective credit) at all three state universities according to the Arizona Higher Education Course Equivalency Guide for the academic year in which the course was taken. Students must complete a course with a grade of "C" or better to receive credit for transfer. Upon completion of the TGECC, the community college will certify achievement of the block on the official institutional transcript, including identification of how the special requirements in Section II of the TGECC were satisfied. A minimum of 15 semester hours of coursework must be completed in residence at the community college district certifying completion of the TGECC.

The TGECC is reviewed and monitored each academic year by the subject area articulation task forces and the General Education Articulation Task Force (GEATF). The statewide GEATF is comprised of representatives from each Arizona community college and state university. The GEATF is responsible for monitoring the TGECC and reviewing related appeals. The GEATF is responsible to the Academic Program Articulation Steering Committee (APASC).

State of Arizona

TGECC

Rev. June 17, 1993

GENERAL EDUCATION VALUES STATEMENT

Through a general education program, a college or university commits students and faculty to the pursuit of wholeness in learning - to seeing the relationship of our special interests to the larger academic and cultural contexts which we share. The search for an integrated understanding requires a general desire to learn, an energetic interest in the world, and a willingness to put ourselves in the place of those whose beliefs and outlooks are different from our own. A general education program, pursued by curious and empathetic faculty and students, provides a structure
in which the accumulation of knowledge and the practice of disciplined, independent thinking can grow into comprehensive understanding and reasoned value.

Wholeness in learning results from participation in a learning community where both thinking independently and connecting with the heritage of human thought and knowledge are necessary and complementary. We come to understand our nature and our limits. We develop skill, openness, delicacy, and strength in negotiating with the world beyond ourselves. We test the conceptual frameworks that govern thought against the details of content and subject matter and the realities of experience. We accept the inevitable responsibility for making informed judgements.

An effective general education program requires the exercise of thoughtful and precise writing, critical reading, quantitative thinking, and processes of analysis and synthesis which underlie valid reasoning. Therefore, students must have a solid foundation in writing, reading, mathematics, and critical thinking.

Studies in the traditional academic disciplines are built upon foundation skills in thought and communication and lead students to grasp the conceptual frameworks that govern different fields of study. Such courses demonstrate that the study of specialized subject matter in any of the traditional knowledge areas - Fine Arts and Humanities, Mathematics, Biological and Physical Sciences, Social and Behavioral Sciences - is critical to the central dialogues of general education.

Interdisciplinary studies focus on the conceptual frameworks through which a thinker, a culture, or an academic discipline may approach an issue. We discover both the ordering power and the potential limitations of the fundamental models of understanding that have shaped our thinking throughout the history of civilization. We acknowledge the dependence of thought upon these models, judge them through comparison with alternative models from other thinkers and cultures, and yet are able to continue to participate with active, discerning commitments in the political, ethical and aesthetic life of the community.

General education is designed for all undergraduate students and may include coursework at both the lower division and upper division levels. The purpose is to give every student pursuing an undergraduate degree the basic skills and the familiarity with various branches of knowledge which are associated with college and university education and are useful in advanced study within the university and in life beyond the university.

State of Arizona

TGECC

Rev. June 17, 1993

TRANSFER GENERAL EDUCATION CORE CURRICULUM

(Specific TGECC changes indicated by gray shading)
The areas that comprise the TGECC and purpose of each are as follows:

I. SUBJECT AREA REQUIREMENTS

A block of a minimum of 41 semester hours of lower division general education coursework that may be completed at an Arizona community college and used to fulfill lower division general education requirements upon transfer to another Arizona community college or any of the three Arizona universities. Specifications for each individual subject area are provided in Appendix A of this document.

MINIMUM MINIMUM

SUBJECT AREA NUMBER OF COURSES NUMBER OF COURSES

1. FRESHMAN COMPOSITION 2 Courses 6 Semester Hours

2. MATHEMATICS 1 Course 3 Semester Hours

3. ARTS & HUMANITIES 3 Courses 9 Semester Hours

4. SOCIAL & BEHAVIORAL SCIENCES 3 Courses 9 Semester Hours

5. PHYSICAL & BIOLOGICAL SCIENCES 2 Courses 8 Semester Hours

6. OPTIONS * 2 Courses 6 Semester Hours

II. SPECIAL REQUIREMENTS

An approved transfer general education core curriculum must contain an intensive writing/critical inquiry component and specified awareness area components. The requirements for the intensive writing/critical inquiry component and the specified awareness area components may be met through one of the options listed below. Refer to sections 6 and 7 of Appendix A for more information about fulfillment of these special requirements.

A. Option 1 - Specific Course Option

1. At least 3 semester hours of intensive writing/critical inquiry coursework

2. At least 3 semester hours of coursework in ethnic/race/gender awareness.

3. At least 3 semester hours of coursework emphasizing CONTEMPORARY global/international awareness or historical awareness.

B. Option 2 - Program Option

1. Requirements embedded in total general education coursework program
C. Option 3 - Any combination of Option 1, and Option 2

III. OPTIONS *

Courses in this area should be selected to enhance the TGECC and to expand the preparation of students prior to transfer. Students who know which state university they intend to transfer to or what area of study they plan to pursue after transfer should choose coursework that will directly apply to specified requirements of the major or institutions. Recommendations for additional coursework include the following:

A. Intensive writing/critical inquiry

B. Awareness areas

C. Foreign language

D. Computer science/computer information systems

E. Oral communication

F. Mathematics or numeracy

G. Laboratory science

H. Specific major/program requirements

NOTE: Additional upper division general education credits may be required by baccalaureate-granting state institutions. Beyond the general education core requirements, specific college and major requirements must be met.

State of Arizona

TGECC

Rev. June 17, 1993

APPENDIX A
SUBJECT AREA AND SPECIAL REQUIREMENTS INTERPRETATION

1. FRESHMAN COMPOSITION

The Freshman Composition requirement must be fulfilled by completion of a one-year lower division English Composition sequence. Courses designed exclusively for satisfaction of preparatory composition cannot be counted toward fulfillment of this requirement.

2. MATHEMATICS
One course in college algebra or a quantitative course for which college algebra is a prerequisite shall be taken.

3. ARTS AND HUMANITIES

Courses that can be used to fulfill this requirement include art, dance, humanities, literature, music, philosophy, religion, theater arts, and western civilization. At least 6 semester hours must be selected from the humanities or provide an historical perspective. Interdisciplinary courses which include both the Arts and Humanities may fulfill this criterion. At least 3 semester hours of coursework must be selected from the Arts. Courses in the Arts may include performance or studio components; however, courses that are primarily performance or studio based cannot be used to satisfy this requirement.

4. SOCIAL AND BEHAVIORAL SCIENCES

Courses in this requirement area include anthropology, economics, ethnic/race/gender studies, history, political science, psychology, social geography, and sociology. Coursework must be chosen from at least two disciplines.

5. PHYSICAL AND BIOLOGICAL SCIENCES

Two courses, both with laboratory requirements, shall be taken from astronomy, biology, botany, chemistry, geology, physics, physical geography, or zoology. Both courses may be taken in a single discipline or in two separate disciplines.

6. INTENSIVE WRITING/CRITICAL INQUIRY

At least one course beyond the Freshman Composition requirement shall involve the development of competence in written discourse and involve the gathering, interpretation, and evaluation of evidence. This coursework may be completed in the following ways: 1) by selecting an approved course in one or more of the subject areas 3, 4, or 5 listed in Area I of the TGECC; 2) by embedding the intensive writing experience into the transfer core curriculum as a whole; or 3) by a designated and approved writing intensive course(s).

7. AWARENESS AREAS

Awareness areas include courses which advance ethnic/race/gender awareness, contemporary global/international awareness, and historical awareness. One course emphasizing ethnic/race/gender awareness is required. One course emphasizing contemporary global/international awareness or historical awareness is also required. The awareness area requirements may be met: 1) by completion of an approved course in one or more of the subject areas 3, 4, or 5 listed in Area I of the TGECC; 2) by embedding forms of awareness into the subject areas 3, 4, or 5 listed in Area I of the TGECC; or 3) by completion of additional designated approved course(s).

State of Arizona
Guidelines

Individuals and Societies, Tier One

I&S Tier I Core courses introduce new students to fundamental issues and concepts pertinent to the study of individuals and societies. As part of the gateway to University education, these courses present a broad exploration of central questions about human experience. They are designed to foster independent, creative, and interactive learning. They provide students with opportunities to discuss course topics and material. All courses contain a substantial writing component and emphasize critical, evaluative thinking. The I&S Core should inspire students to think about themselves, others, and social organizations in new insightful ways. It should instill in students a love of learning, excite them about the university experience, and leave them with valuable skills and knowledge applicable to their lives.

I&S Core courses aim to provide foundational knowledge about the nature of human beings and their societies. These courses may focus on BOTH individuals AND societies, or on either. Representative areas of study include but are not limited to: Basic human thought processes (e.g., conceptual systems, symbolic representation of the world, knowledge acquisition, judgement and decision making, problem solving), personal identity, group identity, family and kinship structure, religious, political, economic, and legal institutions, individual freedom and social control, ethical and moral principles, and ideas of social justice. This list is not meant to be exhaustive, and it is not expected that any single course will span all the areas above. Courses are however expected to avoid narrow parochialism.

Physical Science Courses, Tier One

1. Philosophy

Central to the Tier I philosophy for Physical Science courses is the notion that science plays an important role in the lives of all people. Thus, Tier I courses in the physical sciences must demonstrate the importance of physical and chemical processes in every subject area, and their application to events in the everyday world.

2. Two Course Models: KeyConcepts or Themebased

At least two models exist for the presentation of Tier I offerings. One model would emphasize the presentation of an overview of the key concepts in physical and chemical processes, drawing on, but not limited to, the specific discipline of the faculty involved. A second model would
emphasize a particular theme and trace the occurrence of that theme through a wide variety of scientific disciplines. Both the key concepts and theme-based approaches should be rigorous, emphasize the integrative nature of science, including cross-discipline contributions, and include exposure to scientific thinking and procedures applicable throughout the sciences. The goal is to present material that encourages students to think critically about the world around them, and provide a hands-on experience of science. To this end, courses that tend to emphasize ideas and processes are encouraged over broad fact-based survey offerings that fail to provide an in-depth exposure to science. The nature of the scientific endeavor should be a key part of all courses.

3. Course Content: Commonality with Flexibility

Course content must retain flexibility to be able to take advantage of the disciplinary diversity of the involved faculty and to accommodate the preferred course model (key concepts or theme-based). There should, however, be some commonality among the Tier 1 Physical Sciences courses; in particular, certain concepts in the physical sciences are of such central importance that they must be included in every Tier 1 Physical Sciences Course offering. Proposals for physical science Tier I offerings must state how the required concepts will be presented. These required concepts are:

* Newton’s laws governing force and motion
* Laws of thermodynamics governing energy and entropy
* The role of electromagnetism in nature
* The atomic structure of matter

Tier I Physical Science courses must be interdisciplinary courses that cut across departments and disciplines and integrate them so that the commonality of the scientific approach can be exemplified. To ensure this interdisciplinary perspective every offering must include course content that integrates two or more disciplinary or cross-disciplinary applications, such as:

* Astronomy/Planetary Sciences: Formation and development of the Universe: cosmology, stellar evolution and planetary astronomy
* Geosciences: Formation, development of the Earth; geophysical/geochemical processes of continents and oceans
* Engineering/Technological Sciences: The interplay between science and technology; applied science and everyday life
* Atmospheric Sciences: Formation, development of the Atmosphere; physical and chemical processes of the atmosphere, weather, and climate
* Environmental Sciences: The interaction and interconnections between physical, chemical, and biological processes as they affect, and are affected by, human beings living in their environment

4. Expected Outcomes

Expectations of student outcomes must be clearly stated in any course proposal, and should include such objectives as the ability to: 1) understand the nature and application of science; 2) apply ideas and processes beyond the class room; 3) recognize the complexity of many scientific issues as opposed to dualistic thinking, 4) speak and write about scientific knowledge, 5) perform appropriate mathematical calculations, and 6) read and understand scientific literature from popular sources such as magazines and newspapers.

5. Laboratory Component

Some kind of hands-on, inquiry based laboratory is required, and must be defined in any course proposal. The laboratory experience means designing experiments, generating and analyzing actual data, using abstract reasoning to interpret this data, formulating and testing hypotheses with scientific rigor. These experiences can be imaginatively constructed to be part of a lecture/discussion based course.

6. Quantitative Thinking

The course content should emphasize quantitative aspects of science, and the relevance of mathematical skills to the understanding of scientific problems. Fundamentals such as appreciating the relative scale of objects, rates of change, linear and nonlinear growth, the use of graphs, making quantitative deductions from data, etc., need to be an integral part of the course.

7. Integration of Writing

Writing must be an integral part of the course, and include multiple formats (on exams, during class, group work, ungraded writing, a journal, laboratory reports, and term papers are some possibilities). The writing component must be defined in any course proposal.

8. Innovative Pedagogy

There are many possible methods for teaching Tier I offerings, but active learning methods which support student opportunities to work cooperatively, and to have exposure to computer/multimedia applications are strongly encouraged. Collaborative teaching is encouraged, but only if there is a commitment by all teaching personnel involved to be present for as much of the course as possible.
Guidelines

**Biological Science Courses, Tier One**

1. Philosophy

Central to the Tier One philosophy for the Biological Sciences is the notion that science plays a important role in the lives of people. Tier I courses must demonstrate the importance of a study of biology in every subject area and their application to events in the everyday world.

2. Course Models

The concepts of Biology can be taught using a variety of systems and experimental examples. We favor a model of teaching with teams of faculty representing different disciplines of Biology, all of whom must participate in every phase of the course. A team of three would allow laboratory/discussions to have a ratio of around 50 students per faculty member, and also ease faculty participation in small group assignments outside of regular class time. The design of the course will include two lectures and one student active discussion/laboratory per week for a total of 34 contact hours and three hours credit. The courses should be rigorous, emphasize the integrative nature of science, include crossdiscipline contributions, and expose students to scientific thinking and procedures applicable throughout the sciences. The goal will be to encourage students to think critically about the world around them, the processes leading to the evolution of diverse life forms, the interdependence of living systems, the importance of understanding and preserving the life around us, and the benefits of playing an active role in their own health and well being. The nature of the scientific endeavor should be a key part of all courses.

3. Course Content

All Tier I courses in the biological sciences must cover the following 6 major areas (numbered 1-6). Within each area, the committee expects that certain key concepts be addressed, and those are listed as well (labeled 1a-b, 2a-d, etc.). Some concepts may be addressed in more than one context, and are double-listed:

1. Evolution and diversity of life
   - a. Living systems have evolved by natural selection
   - b. Diversity in living systems is a resource

2. Cells
   - a. All life is made of cells
   - b. Properties of living systems can be explained in physical and chemical terms
   - c. Metabolism and photosynthesis provide energy
   - d. Cooperation and signaling between cells allow multicellularity
3. Structure and function at the multi-cellular level

- a. Genes encode and transmit information between generations
- b. Developmental mechanisms are conserved
- c. Genetics, environment, and behavior contribute to human diseases
- d. Cooperation and signaling between cells allow multicellularity
- e. The plant and cellular systems also have protection against disease

4. Genetics and Development

- a. Metabolism and photosynthesis provide energy
- b. Cooperation and signaling between cells allow multicellularity
- c. Plants and animals have common and distinctive physiologies

5. Health and disease

- a. Genetics, environment, and behavior contribute to human diseases
- b. The plant and cellular systems also have protection against disease
- c. Nutrition and lifestyle contribute to health
- d. Applications of biotechnology are revolutionizing society

6. Interaction and interdependence between organisms

- a. Ecosystems arise from interactions between organisms
- b. Population growth is limited
- c. Extinction is a fundamental biological process

The committee recommends that the above guidelines be used in evaluating any proposals for Tier 1 pilot courses in the biological sciences. All pilots must cover each of the 6 areas. Each area should cover the concepts listed below the cover term. The committee recommends that any course that does not cover all six areas be rejected as inadequate for a Tier 1 course. Any course that covers all 6 areas should also be evaluated for how thoroughly key concepts are covered. While the committee recognizes that different courses will address the material from different perspectives, covering some areas in greater depth than others, instructors should be asked to defend the omission of any of the key concepts listed above.

Finally, the committee asks that all guidelines for Tier 1 science courses be distributed to all science faculty for review and comment.

Adopted, April 24, 1996

4. Expected Outcomes

Expectations of student outcomes must be clearly stated in any course proposal, and should include such objectives as the ability to: 1) understand the nature and application of science, 2) apply ideas and processes beyond the classroom, (3) recognize the complexity of many
scientific issues as opposed to dualistic thinking, 4) speak and write about scientific knowledge, 5) perform appropriate mathematical calculations, and (6) read and understand scientific literature from popular sources such as magazines and newspapers.

5. Laboratory Component

Some kind of hands-on, inquiry based laboratory is required, and must be defined in any course proposal. The laboratory experience means designing experiments, generating and analyzing actual data, using abstract reasoning to interpret this data, formulating and testing hypotheses with scientific rigor. These experiences can be imaginatively constructed to be part of a lecture/discussion based course.

6. Quantitative Thinking

The course content should include quantitative aspects of science, and the relevance of mathematical skills to the understanding of scientific problems. Fundamentals such as appreciating the relative scale of objects, rates of change, linear and nonlinear growth, the use of graphs, making quantitative deductions from data, etc., need to be an integral part of the course.

7. Integration of Writing

Writing must be an integral part of the course, and includes multiple formats (on exams, during class, group work, ungraded writing, a journal, lab reports, and term papers are some possibilities). The writing component must be defined in any course proposal.

8. Innovative Pedagogy

There are many possible methods for teaching Tier I offerings, but active learning methods which support student opportunities to work cooperatively, and which use computer/multimedia applications are strongly encouraged. Full advantage should be taken of the multiple expertise available in faculty teams and to maximize student faculty contacts.

**Traditions and Cultures, Tier One**

Tier One courses study historical development and fundamental concepts in European and other world cultures. Essential to all Tier One courses in Traditions and Cultures is an awareness that we, as historical beings, are shaped by the thoughts and actions of our predecessors and that we will influence the lives of those who follow us. Therefore, courses examine cultures as distinct heritages of ideas, values, and artistic expressions and view them as having undergone continual adaptation due to social changes.

Courses in Tier One must have a broad sweep both in terms of chronology (no less than an epoch) and in terms of geography (no less than a subcontinent). Courses must engage in a rigorous exploration of fundamental knowledge that emphasizes interdisciplinary and cross-cultural analysis and should teach critical thinking, emphasizing the assessment, evaluation, and critique of culture. Courses must require significant essay assignments throughout the semester.
Each three-unit course should be self-contained (even if part of a two-semester sequence). Where appropriate, proposals should also address the possibility of integrating new technologies into the course structure.

Date: ______

TIER ONE PROPOSAL

Course Title: ________________________________

Course Description:

Proposed for Study Area(s): Traditions & Cultures; Individuals & Societies; Natural Sciences

Proposed Semester to be Offered: Spring, Fall, Summer Year: 19___

Has this course been taught previously? ______yes ______no

Under what #? _______________

Desired Enrollment: __________

Total weekly hours in class: _____ Distribution of time: Lecture _____; Discussion _____;
Lab _____; Other (please specify): _______________

If lab or discussion sections are required, desired size ______ and number of teaching assistants ______

Identify essential classroom equipment:

_____ overhead projector _____ tv/vcr ____Elmo presenter ____projector for computer images
_____ laser disc ____computer ____slide projector _____16mm film projector
____tape recorder ____microphone (sound reinforcement)

Desired instructional environment:

_____theatre-style lecture hall _____classroom w/fixed seating
_____lecture hall w/tables _____classroom w/movable seats ____other (please describe)

Name of faculty member(s) proposing course:
Curricula body (e.g. department, interdisciplinary committee) which has reviewed/approved proposal:

_______________________________

Contact person (name, e-mail) ________________________________

Campus address(es): ____________________________

e-mail address(es): ____________________________

Name(s) of other instructor(s): ________________________________

Date: ________________

TIER TWO PROPOSAL

Course Title: ________________________________

Course Description: ________________________________

Proposed for Study Area(s): Arts & Humanities; Individuals & Societies; Natural Sciences

Proposed Semester to be Offered: Spring, Fall, Summer Year: 19 ____

Has this course been taught previously? yes ___ no ___

Under what #? ________________

Desired Enrollment: ________________

Total weekly hours in class: ____ Distribution of time: Lecture ____; Discussion ____; Lab ____; Other (please specify): ________________
If lab or discussion sections are required, desired size and number of teaching assistants

**Identify essential classroom equipment:**

overhead ___ projector ___ tv/vcr ___ Elmo presenter ___ projector for computer images ___

laser disc ___ computer ___ slide projector ___ 16mm film projector ___ tape recorder ___

microphone (sound reinforcement) ___

**Desired instructional environment:**

___ theatre-style lecture hall ___ classroom w/fixed seating

___ lecture hall w/tables classroom w/movable seats ___ other (please describe)

**Name of faculty member(s) proposing course:**

_________________

**Curricula body (e.g. department, interdisciplinary committee) which has reviewed/approved proposal:**

Contact person (name, e-mail) ________________________________

**Campus address(es):** ________________________________

**e-mail address(es):** ________________________________

**Name(s) of other instructor(s):** ___________

_______