

General Information

Course Bulletin Listing/Subject Area	History
Fiscal Unit/Academic Org	History - D0557
College/Academic Group	Humanities
Level/Career	Undergraduate
Course Number/Catalog	2704
Course Title	Water: A Human History
Transcript Abbreviation	Water History
Course Description	History of human use and understandings of water from ancient to modern times, with case studies taken from different geographic locations. Sometimes this course is offered in a distance-only format.
Semester Credit Hours/Units	Fixed: 3

Offering Information

Length Of Course	14 Week, 7 Week, 4 Week (May Session), 12 Week (May + Summer)
Flexibly Scheduled Course	Never
Does any section of this course have a distance education component?	Yes
Is any section of the course offered	Greater or equal to 50% at a distance
Grading Basis	Letter Grade
Repeatable	No
Course Components	Lecture, Recitation
Grade Roster Component	Recitation
Credit Available by Exam	No
Admission Condition Course	No
Off Campus	Never
Campus of Offering	Columbus, Lima, Mansfield, Marion, Newark, Wooster

Prerequisites and Exclusions

Prerequisites/Corequisites	English 1110.xx Pre- or co-requisite
Exclusions	none

Cross-Listings

Cross-Listings

Subject/CIP Code

Subject/CIP Code	54.0101
Subsidy Level	Baccalaureate Course
Intended Rank	Freshman, Sophomore, Junior

Quarters to Semesters

Quarters to Semesters	New course
Give a rationale statement explaining the purpose of the new course	see syllabus

Sought concurrence from the following Fiscal
Units or College

Requirement/Elective Designation

Required for this unit's degrees, majors, and/or minors

General Education course:

Historical Study; Global Studies (International Issues successors)

The course is an elective (for this or other units) or is a service course for other units

Course Details

**Course goals or learning
objectives/outcomes**

Content Topic List

- Water as sacred substance
- Water as power
- Irrigation
- Water for waste and sanitation
- Drinking water and disease
- Floods and droughts
- Fishing
- Travel and discovery
- Scientific study of water
- Water pollution and conservation
- Dam building and tearing down
- Water wars and diplomacy
- Rivers
- Lakes
- Ice and glaciers

Attachments

- syllabus - 2704.docx: Draft Syllabus History 2704
(Syllabus. Owner: Breyfogle, Nicholas)
- History Assessment Plan.doc: GE Assessment Plan History
(GEC Course Assessment Plan. Owner: Breyfogle, Nicholas)

Comments

- Cat Meyers and Val Williams, in consultation with Alexis Collier, approved the structure of this syllabus to satisfy the approval requirements of new History GE courses. *(by Breyfogle, Nicholas on 10/20/2011 06:42 PM)*

COURSE REQUEST
2704 - Status: PENDING

Last Updated: Vankeerbergen, Bernadette
Chantal
11/01/2011

Workflow Information

Status	User(s)	Date/Time	Step
Submitted	Breyfogle, Nicholas	10/20/2011 06:42 PM	Submitted for Approval
Approved	Breyfogle, Nicholas	10/20/2011 06:43 PM	Unit Approval
Approved	Heysel, Garrett Robert	10/30/2011 08:41 PM	College Approval
Pending Approval	Nolen, Dawn Jenkins, Mary Ellen Bigler Meyers, Catherine Anne Vankeerbergen, Bernadette Chantal Hanlin, Deborah Kay	10/30/2011 08:41 PM	ASCCAO Approval

History 2704
Water: A Human History
Class #
MW
3 Credit hours

Professor Nick Breyfogle

Office hours: Mon 2-4, and by appointment
Office: 159 Dulles Hall. Phone: 292-3560
breyfogle.1@osu.edu

Water defines human life, from the molecular to the cultural and political. We live on the Blue Planet. Our bodies are made up primarily of water—we are in essence wandering sacks of water. Without water, life as we understand it would simply cease to exist. Yet water resources—the need for clean and accessible water supplies for drinking, agriculture, and power production—will likely represent one of the most complicated dilemmas of the twenty-first century. The World Water Forum, for instance, reported recently that one in three people across the planet will not have sufficient access to safe water by 2025. Many analysts now think that the world will fight over water more than any other resource in the coming decades.

In this seminar, we will examine a selection of historical moments and themes to explore the relationship between people and water over time and place. The course will examine such historical topics as: Water as sacred substance; water as power; the politics of water; irrigation and agriculture; water for waste and sanitation; drinking water and disease; floods and droughts; fishing; travel and discovery; scientific study of water; water pollution and conservation; dam building; and water wars and diplomacy.

The format of the course will be a combination of lectures, in-class discussions, workshop activities, and presentation of your work to your fellow classmates. You are required to attend classes faithfully, participate actively, and come to class prepared to discuss your ideas about the readings and to listen to your colleagues. (More on this below).

Prerequisites and GE information:

Prerequisites: English 1110.xx Pre- or co-requisite (or permission of the Instructor)

General Education Requirements:

This course fulfills the following GE requirements: 1) "Historical Study," 2) "Culture & Ideas or Historical Study," 3) Open Option, and 4) "International Issues".

Historical Study GE Requirements:

Goals:

Students develop knowledge of how past events influence today's society and help them understand how humans view themselves.

Expected Learning Outcomes:

1. Students acquire a perspective on history and an understanding of the factors that shape human activity.
2. Students display knowledge about the origins and nature of contemporary issues and develop a foundation for future comparative understanding.
3. Students think, speak, and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts.

Rationale for fulfilling the GE Learning Outcomes for Historical Study:

Goals of the course that fulfill the GE Learning Outcomes in Historical Study:

History courses develop students' knowledge of how past events influence today's society and help them understand how humans view themselves through the following ways:

1. Critically examine theories of history, and historical methodologies
2. Engage with contemporary and historical debates on specific regions, time periods and themes of the human past
3. Through reading in primary and secondary sources and in-depth class discussion, students will access and critically examine social, political, economic, military, gender, religious, ecological, and ethnic/racial/national movements in a wider socio-cultural context
4. Students will carry out in-depth analysis in a final paper comparing distinct historical Moments, social movements and their effects

International Issues (contains two subcategories: "Non-Western or Global," and "Western (Non-United States)")

Goals:

International Issues coursework helps students become educated, productive, and principled citizens of their nation in an increasingly globalized world.

Expected Learning Outcomes:

1. Students exhibit an understanding of some combination of political, economic, cultural, physical, social, and philosophical differences in or among the world's nations, peoples and cultures outside the U.S.
2. Students are able to describe, analyze and critically evaluate the roles of categories such as race, gender, class, ethnicity, national origin and religion as they relate to international/global institutions, issues, cultures and citizenship.
3. Students recognize the role of national and international diversity in shaping their own attitudes and values as global citizens.

Rationale for fulfilling the GE Learning Outcomes for International Issues:

History courses develop students' knowledge of how past events influence today's society and help them understand how humans view themselves through the following ways:

1. Through reading in primary and secondary sources and in-depth class discussion, students critically examine the political, economic, social, cultural and philosophical development in *The World* through the lens of water.
2. Engage with contemporary and historical debates on the differences and similarities between cultures and peoples.
3. Access and critically examine ethnically, nationally or religiously framed movements in a wider socio-cultural and global context.
4. Carry out in-depth analysis in a final paper comparing distinct moments in human history and how they shaped the world in the past and today.
5. Completing readings, attending lectures, and participating in class discussions and in-class assignments that will help students understand the complexity of debates over international issues. They will describe theories of international issues on exams and written assignments.
6. Students will understand the roots and structures of today's globalized world.
7. Students will understand the long-term impacts of environment and water on human history

Important Information

Students are **very** welcome to come and talk with me about any aspect of the course and the marvels of history. My office hours and location are listed above. I can also easily be reached by e-mail (breyfogle.1@osu.edu) to set up an appointment.

Required Readings

We will read selections from the following books. The books will be available for purchase and on reserve at Thompson library. Also, PDFs of the appropriate pages will be available on Carmen and in a Coursepack.

Fred Pearce, *When the Rivers Run Dry: Water the Defining Crisis of the Twenty-first Century*

Steven Solomon, *Water : the epic struggle for wealth, power, and civilization*

Richard White, *The Organic Machine: The Remaking of the Columbia River*

Paolo Squatriti, *Water and Society in Early Medieval Italy, AD 400-1000*

David Blackbourn, *The Conquest of Nature: Water, Landscape, and the Making of Modern Germany*

Matthew Evenden, *Fish Versus Power: An Environmental History of the Fraser River*

Marc Reisner, *Cadillac Desert: The American West and its Disappearing Water*

Michael Cathcart, *The Water Dreamers: The Remarkable History of our Dry Continent*

Toby Craig Jones, *Desert Kingdom: how oil and water forged modern Saudi Arabia*

R. Keith Schoppa, *Xiang Lake—Nine Centuries of Chinese Life*

Assignments and Grading

I. Requirements for this course include:

- 1) active class participation, informed in-class discussion, regular attendance, and map assignment [25%]
- 2) take-home examination # 1 [17.5%]
- 3) Museum Exhibit Assignment [27.5%]
- 4) take-home final examination [30%]

Grades will be computed on the following standard scale:

A: 92.6% & above	B+: 87.6% to 89.5%	C+: 77.6% to 79.5%	D+: 67.6% to 69.5%
A-: 89.6% to 92.5%	B: 82.6% to 87.5%	C: 72.6% to 77.5%	D: 62% to 67.5%
	B-: 79.6% to 82.5%	C-: 69.6% to 72.5%	E: below 62%

Three special comments:

- 1) Since the University does not record D- grades, a student earning a course average below 62 will receive an E in this course.
- 2) In order to pass the course, you must pass the Final Exam with at least a 62.
- 3) I reserve the right to consider improvement when determining final grades.

II. Class Participation and Attendance

Active class participation and informed discussion (in the form of questions and comments) requires not only that you attend class regularly, but also that you have completed the reading assignment prior to class and have taken the time to think about what you have read so that you are ready to discuss it. Class participation includes small-group presentations and in-class debates, both of which will require some preparation outside of class.

Attendance at lectures and especially discussion meetings is mandatory. Attendance will be taken. Irregular attendance (you are entitled to no more than two unexcused absences), or a pattern of lateness, will result in a poor class participation grade.

III. Map Assignment

Students will complete a take-home map exercise on the global geography of fresh water, and will be permitted a maximum of four mistakes on the assignment. Those who submit work with more than four mistakes will be required to re-do the assignment until it is satisfactory.

III. Exams, Papers, and Other Assignments

Warning! I expect a great deal from your exams. It is one of the tasks of these projects to write clearly and concisely, saying a lot in a small amount of space. You will need to write and re-write these essays many times in order to fit an insightful, intelligent, and in-depth discussion into the space allotted. As with all work in this class, these assignments must be typed and double-spaced in 12-point font. Correct grammar and spelling and your writing style will be used to determine your grade.

Any time you refer to an idea or quote from any of the books and readings from the class (you will do this often in your essays, often a few times per paragraph), you **must** reference the quotation or information by placing the page number in square brackets beside the quotation/information drawn from the text. For example: [Rasputin, p. 27].

If you reference other readings or sources of information, proper footnotes and bibliography must be included.

***** See the “Writing Tips and Guidelines” handout and Rampolla for helpful guidelines for writing papers and exams, and correct citation of sources *****

I. Take-Home Exams

There will be two (2) take-home exams during the course, which includes the final.

For the **first exam**, students will have one week to write a five-page essay in answer to one of a choice of two questions.

The **final exam** will be a similar format, except that students will write two five-page papers in answer to two of a choice of four questions.

Please note the due dates (listed below) in advance and be sure to free up your calendar then to ensure sufficient time to work on the exam.

IV. Research Assignment -- The Museum Exhibit

The Smithsonian Museum in Washington, DC recently began preparations to put on a full-scale exhibition of the human history of Water. As part of its government-mandated outreach program, the Smithsonian has picked history students at Ohio State to help them construct the project.

Your assigned task is to design a mini-exhibit on one topic or theme of Water history and hand in those plans. Your findings will then be synthesized by a campus representative and sent on to the Smithsonian.

The project that you will hand in will be composed of three parts:

1) The first five pages will be a concise, clear, and complete summary of the most salient aspects of your topic (i.e. a first draft of the text that will appear on the wall as the exhibit go-ers enter and are first introduced to the topic). In these five pages you must present the large historical issues and highlight salient historical moments and turning points. In order to complete this section, you will need to do considerable research in books, articles, and websites not assigned for this course. Please be sure to include a bibliography and footnotes for your introductory paper (the bibliography does not count towards your five pages). [We will meet in advance to go over possible topics and sources.]

2) On the sixth and seventh pages of your proposal you will outline in written form a “wish list” of material objects, images, interactive activities, etc., that you feel should be included in this museum exhibit. You are to pick out those material objects that you believe best represent the historical processes of your topic and what it was like to live through them. (i.e. how do you best get across the essence of your topic to the exhibition go-ers through material objects?). For each object you will include a two or three line description that will accompany it in the exhibit. This description must tie the exhibition piece into the larger historical questions. (i.e. explain to the museum visitor why he or she should care that you have included the object. What meaning should they take from the object, why does the object tell us anything about the historical topic?)

3) The final ten pages will include copies of photographs, material culture, posters, maps or data graphs that illustrate your topic. [Feel free to include more than ten pages of copies if your topic warrants. Some topics will be much more visually oriented than others. Also, please feel free to make posters or computer presentations of your exhibit.]

In class, we will hang these exhibitions on the wall and wander through as exhibition go-ers. We will learn from each other's' projects but at the same time we will be critical of the choices that our fellow curators have made in designing their exhibit. As we walk through, we will use our knowledge of Water history gleaned from the course and think about what we might have included if we had presented the topic ourselves. In a large group discussion we will ask each other why we chose to present specific topics in certain ways. In doing so, we will re-cap the history covered in the last ten weeks and begin to understand the meanings of water in world history.

General Paper Information

Grading Your Exams and Papers:

Most of your grade in this course will be based on how well you communicate in writing what you have learned. You should refer to my handout, “Tips and Guidelines,” and Rampolla, pp. 38-68. In addition, I furnish below brief descriptions of how you will earn your essay grades:

- "C" essays will include: an introductory paragraph that contains your thesis; a body of several paragraphs in which you offer evidence from the readings, lectures, and discussions to support your thesis; and a conclusion that reiterates your basic argument.
- "B" essays will include: all of the above requirements for a "C" essay plus more relevant data and analyses than is found in an average essay.
- "A" essays will include: all of the above requirements for a "B" essay plus more data and some indication of independent or extended thought.
- As for "D" and "E" essays: usually, these essays do not include a viable thesis and/or they do not include very much information from the course.

Late Assignments

Extensions for written work are granted at the discretion of the instructor to those students presenting valid and verifiable excuses. Students who are unable to fulfil assignments as scheduled for family, religious, or medical reasons must contact me **before** the due date of the assignment. If you submit work late without just cause, or without a previously approved excuse, you may have your grade reduced by a full letter per day late. The pressures of other course work, employment, and extra-curricular activities do not constitute valid excuses for late assignments. Note due dates on the syllabus and plan ahead. If I am not available to approve excuses, leave a message on my e-mail or office voice-mail. There is no provision in this course for additional papers for extra credit or to substitute for requirements.

Submission of Assignments

All assignments are mandatory. If you do not submit one assignment, your final grade will be reduced by one full letter grade in addition to giving you zero for that assignment. If you do not submit two or more assignments, you will automatically fail the course.

Grade Reconsideration

A student who wishes reconsideration of his/her grade on a paper should submit the assignment in its entirety to the instructor. The paper should be accompanied by a written exposition, explaining why the grade is not an accurate appraisal of the work. Appeals must be initiated within one week after the paper was returned to the class. In reviewing a paper on appeal, I reserve the right to raise, confirm, or lower the grade.

Weekly Topics

Week 1: Water: The science of water: biology, ecology, hydrology

Week 2: Water and the Births and Deaths of Civilizations

Topics: Witfogel, Jared Diamond, Mesopotamia, Rome, Khmer Empire, Indus Valley, Los Angeles, Nile

Water 3: Water and the Sacred

Topics: (Indus River and Hinduism, River Styx, Christianity, Judaism, Islam, Taoism and Buddhism, River Jordan)

Week 3: Water and Power

Topics: Dams, Water and electricity, Water wheels, Fraser River, Columbia River, Yangtze, Nile

Week 4: Drought, Deserts, and Foods

Topics: Australia, American Southwest, Kalahari, Saudi Arabia, Bangladesh, Mississippi River

Week 5 : Water for Leisure and Health

Topics: Bathing, Sanatoria, Tourism, water resorts.

Week 6: fishing

Topics: Mekong, Great Lakes, Pacific Salmon, Lake Titicaca.

Week 7: Drinking water and Disease

Topics: London, New York, Ancient Rome. Aquifer water and Arsenic. Bottled Water. Yellow Fever and the Caribbean.

Week 8: Sewage and sanitation

Topics: Paris, Rome, Cairo, Vancouver

Week 9: Water and travel (discovery, boats and communication, canals)

Topics: The Canals of Europe. Upriver to empire (European and Asian exploration and conquest)

Week 10: Water, conservation, and environmentalism; Pollution and Invasive species

Topics: Amazon river. Protecting Lake Baikal. North America: Zebra mussels, Asian carp. Industrial and Agricultural pollution.

Week 11: Wetlands, River Reconstruction

Topics: Drying the land, regulating the waters. Fens, Rhine, Netherlands.

Week 12: Water and political and social power

Topics: Los Angeles. South Africa. Late-Antique Italy. Monasteries.

Week 13: Water and War/Diplomacy

Topics: Water Wars (Uzbekistan and Tajikistan; Israel and Palestine).

Week 14: Irrigation and Agriculture

Topics: Mesopotamia, South Asia (especially India, Pakistan). Australia.

Academic misconduct:

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct (<http://sja.osu.edu/page.asp?id=1>).

Disability services:

"Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office for Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; <http://www.ods.ohio-state.edu>

MEMORANDUM

TO: Arts and Sciences Committee on Curriculum and Instruction

**FROM: Nicholas Breyfogle, Associate Professor and Calendar Conversion
Coordinator, Department of History**

**RE: Assessment Plan for proposed GE courses: Historical Study Category, Social
Diversity in the U.S., and Diversity: International Issues**

Assessment Goals and Objectives

1) Both the GE and course-specific learning objectives for all History courses might be summarized as follows:

Historical Study GE Requirements:

Goals:

Students develop knowledge of how past events influence today's society and help them understand how humans view themselves.

Expected Learning Outcomes:

1. Students acquire a perspective on history and an understanding of the factors that shape human activity.
2. Students display knowledge about the origins and nature of contemporary issues and develop a foundation for future comparative understanding.
3. Students think, speak, and write critically about primary and secondary historical sources by examining diverse interpretations of past events and ideas in their historical contexts.

Rationale for fulfilling the GE Learning Outcomes for Historical Study:

Goals of the course that fulfill the GE Learning Outcomes in Historical Study:

History courses develop students' knowledge of how past events influence today's society and help them understand how humans view themselves through the following ways:

1. Critically examine theories of history, and historical methodologies
2. Engage with contemporary and historical debates on specific regions, time periods and themes of the human past
3. Through reading in primary and secondary sources and in-depth class discussion, students will access and critically examine social, political, economic, military, gender, religious, ecological, and ethnic/racial/national movements in a wider socio-cultural context
4. Students will carry out in-depth analysis in a final paper comparing distinct historical Moments, social movements and their effects

- 2) Both the GE and course-specific learning objectives for History courses requesting Social Diversity in the U.S. might be summarized as follows:

Social Diversity GE Requirements:

Goals:

Courses in **social diversity** will foster students' understanding of the pluralistic nature of institutions, society, and culture in the United States.

Expected Learning Outcomes:

1. Students describe the roles of such categories as race, gender, class, ethnicity and religion in the pluralistic institutions and cultures of the United States.
2. Students recognize the role of social diversity in shaping their own attitudes and values regarding appreciation, tolerance, and equality of others.

Rationale for fulfilling the GE Learning Outcomes for Social Diversity in the United States:

Goals of the course that fulfill the GE Learning Outcomes: Students will achieve the social diversity goals and learning outcomes by:

1. completing readings, attending lectures, and participating in class discussions and in-class assignments that will help students understand how the categories of race, gender, class, ethnicity, religion, and nation have shaped peoples' identities and the distribution of power and resources in the U.S. and elsewhere
2. describe theories of racial, ethnic, class, national, gender, and religious formation on exams and written assignments.
3. Critically examine theories of race, gender, class, ethnicity, religion, and nation
4. Engage with contemporary and historical debates on race, gender, class, ethnicity, religion, and nation
5. Access and critically examine movements framed by race, gender, class, ethnicity, religion, and/or nation in a wider socio-cultural context
6. Carry out in-depth analysis in a final paper comparing distinct moments of ethnic, racial, nationalist, gender, class, and/or religious mobilization or social movements and their effects

- 3) Both the GE and course-specific learning objectives for History courses requesting Diversity in International Issues might be summarized as follows:

International Issues GE Requirements:

Goals:

International Issues coursework help students become educated, productive, and principled citizens of their nation in an increasingly globalized world.

Expected Learning Outcomes:

1. Students exhibit an understanding of some combination of political, economic, cultural, physical, social, and philosophical differences in or among the world's nations, peoples and cultures outside the U.S.
2. Students are able to describe, analyze and critically evaluate the roles of categories such as race, gender, class, ethnicity, national origin and religion as they relate to international/global institutions, issues, cultures and citizenship.
3. Students recognize the role of national and international diversity in shaping their own attitudes and values as global citizens.

Rationale for fulfilling the GE Learning Outcomes for International Issues:

History courses develop students' knowledge of how past events influence today's society and help them understand how humans view themselves through the following ways:

1. Through reading in primary and secondary sources and in-depth class discussion, students critically examine the political, economic, social, cultural and philosophical development in places outside the United States.
2. Engage with contemporary and historical debates on the differences and similarities between cultures and peoples.
3. Access and critically examine ethnically, nationally or religiously framed movements in a wider socio-cultural and global context.
4. Carry out in-depth analysis in a final paper comparing distinct moments in human history and how they shaped the world in the past and today.
5. Completing readings, attending lectures, and participating in class discussions and in-class assignments that will help students understand the complexity of debates over international issues. They will describe theories of international issues on exams and written assignments.
6. Students will understand the roots and structures of today's globalized world.

II. Methods

An assessment of whether these objectives are met is effectively carried out by an examination of the work students are actually required to do for the course. Contributions in class discussions will be considered, but weighted more lightly, given the tendency for more confident students to contribute more to such discussions. Paper and exams will provide an understanding of students' abilities to think historically and to engage in analysis. This can be gauged by their responses to specific exam questions—asking students to provide a perspective on history and relate that perspective to an understanding of the factors that shape human activity. Thus, exams for Historical Study courses will have at least one question that requires students to provide a perspective on the factors that shaped an event or theory. Similarly, for courses that include Diversity in the U.S. GE requirements, we will have at least one question that requires students to provide a description of the roles of categories such as race, gender, class, ethnicity and religion and how those roles have helped shape either their perspective or the country's perspective on diversity. For courses that include Diversity of International Issues, we will ask one question that requires students to provide an understanding of some combination of political, economic, cultural, physical, social, and philosophical

differences in or among the world's nations, peoples and cultures outside the U.S. In this way, we hope to measure the courses (and the students') progress toward the multiple objectives of the GE. In this way we should be able to ascertain whether they are acquiring the desired skills and not simply learning (and regurgitating) specific information.

Summary of Data:

An advanced graduate student, supervised by the UTC Chair, will be asked to evaluate the sampled questions and papers, and to gauge how well the goals of the course seem reflected in them. Assessment of Historical Study, Social Diversity, and Diversity International Issues from the GE goals will be carried out primarily through the evaluation of formal graded assignments and ungraded in-class assignments, including class discussions. Students will complete an informal feedback survey halfway through the semester to assess their own performance, the pace of the class, and the instructor's effectiveness. Students will also be surveyed to assess their mastery of the General Education objectives through a survey instrument at the end of the semester. We will compare these data with the exams and papers mentioned above. We will be interested to assess improvement over time, so that we will compare each of the selected student's answers from the surveys, papers, and exams to those on the finals to see if any has in fact occurred. A brief summary report will be written by the grad student and UTC Chair, and that, as well as the sampled questions themselves, will be made available to the instructor and to the Chair of the department. We intend to insure that the proposed courses adequately articulate these goals, teach toward them, test for them, and help students realize their individual potential to meet them. Assessments will be summarized and used to alter the course for the next teaching.